CHAPTER – 1
INTRODUCTION

1.1 Introduction

Part I: Urban development and urbanization
1.2 Concept of Urban Development
1.3 History of urbanization

Part II: Theories / Models of Urban Economics
1.4 Theories and models of Urban Economics with respect to urbanization process and the development of micropolitan city.
   1.4.1 Economic Geography Approach and Central Place Theory
   1.4.2 Durable capital model
   1.4.3 Model of residential location choice
   1.4.4 Optimal City Size

Part III: Application of theories and models of urban economics in Indian context
1.5 Urbanization in India
1.6 Urbanization in Maharashtra
1.7 Urbanization in Thane
1.8 Major stake-holders in the urbanization process of Thane city
   A. Existence of metropolitan city i.e Mumbai
   B. Urban Local Body (Thane Municipal Corporation)
   C. NGOs
1.9 Conclusion
1.1 Introduction

20th century has been called as the age of urbanization. In 1901, the world was mainly a rural with 86% of human population residing in villages and rest 14% in urban area. However by mid 1990s, 45% of world population comprised of permanent residents of urban area.

The same trend follows in case of India. At the time of independence India was called as the country villages. However this description is outdated in the present context. In the 21st century India is changing its face with rapid growing urbanization.

The researcher has studied the ‘socio-economic and political aspects of the urban development of the micropolitan city with reference to Thane Municipal Corporation’.

In this chapter, the researcher has made an attempt to describe the concept of urban development and the theories of urban development. She has also taken into account the empirical evidence of the process of urbanization in India and Maharashtra state in general while Thane district and the city in particular. She has analysed the data in this context and presented it in following three parts of this chapter.

Part I: Urban development and urbanization
Part II: Theories / Models of Urban Economics
Part III: Application of theories and models of urban economics in Indian context

Part I: Urban development and urbanization

1.2 Concept of Urban Development

In 1971, 1981 and 1991 census an urban area was defined as follow:

A. All the places with the Municipality Corporation, Cantonment Board or the modified towns area committee etc.

B. All other places which satisfy the following criteria:
   I. Minimum population of 5000.
   II. Atleast 75% of the male working population engaged in non-agricultural pursuits.
   III. A density of the population of at least 400 persons per square kilometers

The definition is arbitrary. The urbanization is a part of the development process. However this process of urbanization is slow in the backward segment of the society because cities fail to offer the employment opportunities to the people living in the countryside. The
migrants in fact are pushed out due to the economic and social pressures of they are pulled by the so-called attraction of the urban life. Secondly the urbanization process is fact in the rapidly growing economies where newly established industries and ancillary activities contiuunly provide the jobs to the people who wish to migrate to the cities. The economic pull of cities in this phase of development becomes particularly strong when the industrial growth is fastand inspite high capital intensity; industries offer jobs in the large number.

For measuring urbanization a number of measures are being used. One simple method is to examine the changes in the level of urban population. Second method is the Urban-Rural Growth Differential (URGD) method. Third method is to examine the growth of the urban population. Whatever be the measure adopted, the picture of urbanization reveals the similar trend.

1.3 History of urbanization

Though the man began to live in cities 5000 years ago, the phenomenon of crowded urban areas began only in the 19th century. It represents a new and fundamental step in social evolution of mankind. Today a city is considered to be a functional entity of all aspects of human life except agriculture. Hence, it is habitat for the people without farmland but who are intelligent enough to be creative in other aspects of life.

However the cities in the historic past were very small (in terms of geographical spread as well as the multifarious human activities) compared to the cities of modern times. Some of the Mesopotamian cities are estimated to inhabit 5 to 10 thousand citizens. Agricultural villages surrounded the cities, the latter gradually merging into forests of the biome. Los Angeles in the U.S.A. is a metro city formed by merger of large number of villages, while Moscow has forest at its boundary. The information available about ancient Indian cities goes back to the well planned prehistoric cities of Harappa and Mohenjo-Daro to Magadha, Varanasi, Vijaynagar etc.

The urban areas today are the vast expanses of land with multifarious human activities. Apart from residential and commercial areas, there are also industrial areas, often spread across a city. Communication and transport by the road and rail forms a substantial network while waterways in some cases serve as a significant mode of transport, like Vienna, Amsterdam, Bangkok and Singapore².

While analysing the factors responsible for the urban development, they can be summarized as follows:
<table>
<thead>
<tr>
<th>Factor</th>
<th>Example</th>
<th>Theoretical Argument</th>
</tr>
</thead>
<tbody>
<tr>
<td>In production, within</td>
<td>parks, sports stadiums</td>
<td>Arnott &amp; Stiglitz (1979)</td>
</tr>
<tr>
<td>firm in consumption</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In Production</td>
<td>advertising, Theater, Restaurants,</td>
<td></td>
</tr>
<tr>
<td>In Consumption</td>
<td>High/Low Culture</td>
<td></td>
</tr>
<tr>
<td>In Production</td>
<td></td>
<td>Acemoglu (1996), Artle</td>
</tr>
<tr>
<td>In Consumption</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In Production</td>
<td>market for assets, Substitute goods</td>
<td>Helsley &amp; Strange (1991)</td>
</tr>
<tr>
<td>In Consumption</td>
<td></td>
<td>Mills &amp; Hamilton (1984)</td>
</tr>
</tbody>
</table>


1. The scale economies or indivisibilities within firms are the historical rationale for existence of cities in the first place. “Without scale economies there is no role for the cities at all.” For many collective consumption goods provided to the urban residents (like parks, stadiums), the average cost decreases with the additional residents; however at the same point it turns up with more residents creating congestion.

2. Another approach of shared inputs by Krugman, Rivera – Batiz encompasses the “economies of localized industry”. According to them in the metropolitan areas, ready availability of (specialized) workers and shared inputs in consumption (like fashion, culture, style) makes it economical to produce and to distribute on the mass scale.

3. According to Helsley & Stranger Acemoglu, transaction cost is the major factor why metropolitans provide the better economic efficiency. On production side it includes possibility of better matching between worker skills and job skills and job requirements, reduces the search cost for employer, employee as well as even for the consumers (because of malls, shopping complex etc.)

4. Finally the potential economies and cost savings arise because of the statistical economies which arise in production as well as the consumption side in the form of development of the
service sector like insurance, banking, growth of resale market for assets, substitute goods etc.

After Second World War urbanization received a boost in developing countries as well. Not only the size of cities increased, as evidenced in cases of Vadodara, Mumbai and Pune; even the number of towns and cities increased, many villages grew into towns, towns into bigger towns and big towns into cities.

Development of urban areas in developing countries has a history of barely one century. Development, urbanization and industrialization have become focal areas of the cities in India in post-independence times. Large migrations from hinterland, as evidenced by exceptionally high growth rate of urban population are mainly responsible for unplanned and haphazard growth of cities in India. Rapid increase in the rate of urbanization has taken place at the cost of efficiency of the urban functions—particularly housing, water supply, transport and disposal of wastes. The scenario of harsh urban life is being witnessed in most of the cities in this country. The present research aims at understanding the socio-economic and political aspects of urban development of the micropolitan cities which are of the growing importance keeping in view the urbanization process in India.

A Micropolitan City

A micropolitan city is the one which is geographically proximate to the metropolitan city and which acts as a link between the villages in the nearby vicinity and the metropolitan. It is a city which typically grows on the commuting zones which connect the main city or metro with the rest of the world. The examples of such micropolitans can be Thane (proximate to Mumbai and the present case in point), Chinchwad (proximate to Pune), Secunderabad (proximate to Hyderabad) or even Gaziabad (which if proximate to Delhi).

A micropolitan city is different from the satellite town as the former is developed as the natural evolution while the latter is the deliberate action by the authorities with the intention of decentralization of the economic activities from the main city. The example of the satellite town can be given in terms of Navi-Mumbai or Chandigad which are planned townships. In case of a micropolitan city such decentralization cannot be observed since the micropolitan acts as the umbra (or a shadow town) of the main city or metro.

While studying the urban development and the urbanization pattern it is essential to understand the type of the city in order to analyze its functional existence.
Urbanization is a complex process where the economic forces like industrialization, development of the infrastructure are only one of the few factors. A part from these economic factors every city has a strong historic perspective for its location and its subsequent development. This is explained through cumulative causation principle under the economic geography approach. Apart from the historic perspective the other major factor to which the urbanization process can be attributed to is the existence of the durable capital and economies of scale. On the other hand some of the theories of residential location choice lay emphasis on the social factors like homogenous communities, pier-group effects and even psychological factors like the need for open space, need for social security behind selecting a particular location at the time of migration.

ONE OF THE OBJECTIVES OF THE PRESENT RESEARCH IS TO STUDY THE CENTRAL PLACE THEORY IN THE CONTEXT OF THANE CITY. THE RESEARCHER HAS MADE AN ATTEMPT TO STUDY THIS OBJECTIVE IN DETAIL IN THIS SECTION. The researcher has made an attempt to study economic geography approaches, Theories and models in this context as given below.

1.4.1 Economic Geography Approach and Central Place Theory

The theory was developed by M. Fujita and Krugman (1989). It is centered around the urban land use and city size. According to this theory; the residential location behavior of household is analyzed in microeconomic framework and the optimum pattern of land use is examined. ‘Economic Geography’ is the location of production in space; the branch of economics that studies about where things happen in relation to one another.

The most striking feature of the geography of economic activity is the concentration. The geographic concentration of production is clear evidence of some kind of increasing returns. The interaction between increasing returns, transportation costs and demands. To minimize transportation costs the firm chooses a location with large local demand. Local demand will be large where the majority of manufacturers choose to locate. There is a circularity that tends to keep a manufacturing belt in existence once it is established.
One of the main points of the new economic geography is there is a multiplicity of equilibria. In other words, history matters for economic geography in the sense that initial conditions appear to be essential for the selection of a particular equilibrium. If development begins in the east, the core will be in the east, if development begins in the west, the core will be in the west. The reason is that the agglomeration of economic activities has the nature of a cumulative, self-reinforcing process and the emergence of a particular site as a major agglomeration does not depend upon the natural features of the site.6

The cumulative causation principle states "that within broad limits, the power of attraction of a center has its origin mainly in the historical accident that something was once started there, and not in other places that it could have succeeded equally well."7 The monocentric model, a theory of urban spatial structure determines a long-run equilibrium between the demand and supply for urban land. For these models, residential density is found to decline with greater distance from employment, as is the rent per unit of land. A larger population in the city will increase population density at all locations; a decrease in transportation or an increase in income will lead to cities with less steeply sloped density gradients. These models assume that the city is malleable, or that it is constructed over a relatively short period of time.

An alternative assumption is that residential capital is perfectly durable. Also, that the city grows incrementally over time. Development occurs over time in successive zones or rings from the center of employment outwards. The development of each ring proceeds under myopic foresight and once built, capital neither deteriorates physically nor depreciates economically. A typical monocentric city is a city with a dense hub-and spoke commuting network.

Krugman's analysis of the location of the core is based on the same variables that underlie the circular model of the system of cities, the relative magnitude of fixed costs, transportation costs, the total demand of the firm — Although Krugman stresses the stability and permanency of the manufacturing belt, he allows for a fragmentation of the Core — and points out that once the population in the peripheral area reaches a certain threshold level — the development of manufacturing there will be sudden and explosive. The explanation for this threshold is simple. Once the population in the particular area reaches a certain threshold the saving, transportation costs become large enough to out set the disadvantage of fixed cost.
Krugman considers two models that consider the interaction of economies of scale and transportation costs. In Model I he assumes that agricultural production is distributed along a line. He assumes that economies of scale are large enough that each producer will produce only at one point. Only one city will emerge and it will be at the center.

In Model 2 he considers an agricultural population spread along a circle. If transportation costs are high relative to economies of scale, a large number of small cities will form along the circle to supply agricultural production if the urban population is small. If the urban share of population increases the number of cities will decrease.

Consider a developing country with one large city. This urban concentration may be the result of large economies of scale that is, Model I or high transportation costs and large urban demand. If most of the demand for manufacturing good is urban and transportation costs are high it will pay to concentrate production at one location.

The essence of an urban area is that it contains a large number of people in a relatively small area. Two classes of theories of suburbanization have been offered in the economic geography approach.

(a) The natural evolution theory – It stresses on rising real incomes over a period of time which results in improving intra-urbanization transportation systems and better network facilities across the region. This filters down to the areas which are proximate to the central city and which were backward and underdeveloped earlier. These smaller towns and villages turn into the sub-urban location by absorbing the spill-over population.

(b) The flight from blight explanations – As per this approach, the preference for residing among individuals of like income, education, race, ethnicity results into the migration of the homogenous communities. These homogenous communities are motivated by varying demands for local public goods. Such homogenous groupings enhance the quality of education, as there is evidence that pier-group effects are important in the production of education.

However as one modifies and extends the monocentric model of urban areas, the possible inefficiencies associated with fiscal externalities and the "flight from blight", i.e., the middle class leaving the central city because of fear of crime, poor schools and so on become important point of concern.

The two approached stated above have a number of interactions and interrelations, and consequently it is difficult to distinguish between them empirically. First, if relative
importance placed on the two theories can lead to different policy conclusions. If suburbanization is largely the result of natural evolution, then it is appropriate for the public sector to accommodate these demands. If households prefer to live in low-density suburbs the public sector should validate these preferences with appropriate investments. Second, if fiscal distortions are important the case for equity based aid is strengthened. The fiscal distortions can be internalize by an appropriate tax structure on real estates and new establishments.

According to this approach, the reasons for dispersal of offices at suburban clusters as per this theory can be summarize as follows:
(a) As the size of the production activities increases, they become so large that they exhaust the economies of scale which they were enjoying earlier by being in the CBD.
(b) Congestion has increased in and near CBD because of difficulty of increasing the capacity of transportation. This creates major transportation bottlenecks which compels the production units to move towards the outskirts.
(c) Modern methods of communications reduce the need of face-to-face communications.
(d) Use of car and other modes of transport permit inexpensive commuting between origin-destination pairs.
(e) Offices tend to employ well educated well paid workers who have moved to the suburbs.
(f) There is nothing uniquely advantageous for CBD as a location of an office cluster. Proximity to the airport is more important for export of office services than proximity to rail or ship terminals.
(g) CBD may minimize commuting distance but this is not important if there is congestion. Thus there is a clear trade off between commuting distance and the congestion. As far as the commuting factor is considered, as the peripheral areas develop in suburbs, one more factor becomes essential. The importance of the suburb-to-suburb form of commuting is closely related to the decentralization of employment - the formation of ‘Edge Cities’. But a large portion of suburban employment is dispersed not located in clusters. Hence the origin destination patterns of suburban computing are quite complicated and diverse.

Central Place Theory:

Central Place Theory is a geographical theory that seeks to explain the size and spacing of human settlements. It rests on the notion that centralization is a natural principle of order and that human settlements follow it. Created by the German geographer Walter
Christaller, the theory suggests that there are laws determining the number, size and distribution of towns. He was interested only in their functions as *markets*, thus excluding specialist towns such as mining settlements. He argued that population alone couldn’t measure the significance of a town.

**Assumptions:**
1. An isotropic (all flat), homogeneous, unbounded limitless surface (abstract space) an evenly distributed population  
2. Evenly distributed resources  
3. All consumers have a similar purchasing power and demand for goods and services no provider of goods or services is able to earn excess profit. Therefore the trade areas of these central places who provide a particular good or service must all be of equal size  
4. There is only one type of transport and this would be equally easy in all directions transport cost is proportional to distance travelled i.e. the longer the distance travelled, the higher the transport cost

Two basic concepts: The theory then relied on two concepts: threshold and range. Threshold is the minimum market (population or income) needed to bring about the selling of a particular good or service. Range is the maximum distance consumers are prepared to travel to acquire goods - at some point the cost or inconvenience will outweigh the need for the good.

The result of these consumer preferences is that a system of centers of various sizes will emerge. Each center will supply particular types of goods forming levels of hierarchy. In the functional Hierarchies, generalizations can be made regarding the spacing, size and function of settlements. The larger the settlements are in size, the fewer in number they will be, i.e. there are many small villages, but relatively few large cities.  
The larger the settlements grow in size, the greater the distance between them, i.e. villages are usually found close together, while cities are spaced much further apart. As a settlement increases in size, the range and number of its functions will increase.  
As a settlement increases in size, the number of higher-order services will also increase, i.e. a greater degree of specialisation occurs in the services. The higher the order of the goods and services (more durable, valuable and variable), the larger the range of the goods and services, the longer the distance people are willing to travel to acquire them. Examples for low order goods and services are: newspaper stalls, groceries, bakeries and post
offices. They are supported by a relatively smaller threshold population and demand. Examples for high order goods and services are: jewellery, large shopping arcades and malls. They are supported by a much larger threshold population and demand.

Implications of the theory

From this he deduced that settlements would tend to form in a triangular/hexagonal lattice, this being the most efficient pattern for travel between settlements (derived from stacking theory). In the orderly arrangement of an urban hierarchy, 7 different principal orders of settlement have been identified by Christaller, providing different groups of goods and services. Settlement are regularly spaced - equidistant spacing between same order centers, with larger centers farther apart than smaller centers. Settlements have hexagonal market areas, and are most efficient in number and functions.

The different layouts predicted by Christaller have K-values which show how much the Sphere of Influence of the central places takes in - the central place itself counts as 1 and each portion of a satellite counts as its portion:

K=3 Marketing Principle

\[ K=3 \]

According to the marketing principle K=3, the market area of a higher-order place includes a third of the market area of each of the following size neighbouring lower-order places and each is located at the corner of a hexagon around the high-order settlement. Each high-order settlement gets 1/3 of each satellite settlement, thus \( K=1+6\times1/3=3 \).

However, although in this K=3 marketing network the distance traveled is minimized, the transport network is not the most efficient, because the important transport links between the larger places do not pass through intermediate places.

K=4 Transport Principle

\[ K=4 \]

According to K=4 transport principle, the market area of a higher-order place includes a half of the market area of each of the six neighbouring lower-order places, as they are located on the edges of hexagons around the high-order settlements. This generates a hierarchy of central places which results in the most efficient transport network. There are maximum central places possible located on the main transport routes connecting the higher order centers.
K=7 Administrative Principle

According to K=7 administrative principle (or political-social principle), settlements are nested according to sevens. The market areas of the smaller settlements are completely enclosed within the market area of the larger settlement. Since tributary areas cannot be spilt administratively, they must be allocated exclusively to a single higher-order place. Efficient administration is the control principle in this hierarchy.

The validity of the central place theory may vary with local factors, such as climate, topography, history of development, technological improvement and personal preference of consumers and suppliers.

Economic status of consumers in an area is also important. Consumers of higher economic status tend to be more mobile and therefore bypass centers providing only lower order goods. The application of central place theory must be tempered by an awareness of such factors when planning shopping center space location.

Purchasing power and density affect the spacing of centers and hierarchical arrangements. Sufficient densities will allow, for example, a grocery store, a lower order function, to survive in an isolated location.

Thus the factors shaping the extent of market areas are:
1. Land use: industrial areas can provide little in the way of a consuming population
2. Poor accessibility: this can limit the extent of a center's market area
3. Competition: this limits the extent of market areas in all directions
4. Technology: high mobility afforded by the automobile allows overlapping of market areas

Market area studies provide another technique for using central place theory as a retail location planning tool. The hierarchy of shopping centers has been widely used in the planning of "new towns". In this new town, the hierarchy of business centers is evident. One main shopping center provides mostly durable goods (higher order); district and local shopping centers supply, increasingly, convenience (lower order) goods. These centers provided for in the new town plan are not free from outside competition. The impacts of surrounding existing centers on the new town centers cannot be ignored.

Criticism
The Central Place Theory has been criticized for being static; it does not incorporate the temporal aspect in the development of central places. Furthermore, the theory holds up well when it comes to agricultural areas, but not industrial or postindustrial areas due to their diversified nature of various services etc.

1.4.2. Durable Capital Model

The basic framework of the model was developed by Alex Anas (1978) and Jan Bruecher (1979). The Durable Capital model gives a comprehensive framework for explaining the density gradient and the spread of urbanization. The model is based on various assumptions and as one relaxes the assumptions one after the other it gives rise to various situation under which the density gradient changes. Initially it starts with the assumption of capital replacement and its impact on the spread of urbanization. Secondly it analyses the incremental growth model without capital replacement. The density gradient changes in a model of redevelopment with a myopic foresight (model developed by Harrison and Kain, 1974) and with a perfect foresight (developed by Richard Arnott, 1978 and Jan Brucker, 1979). At the end it also analysis the implications of the externalities on the urbanization process and spread.

The model lays emphasis on the durable capital like buildings, infrastructure and other fix capital assets of the city. The replacement of such capital occurs even without physical deterioration simply because it has become economically sub-optimal. A landowner who has a developed piece of property has two options open to him. He may continue renting the property in its current use and earn a gross rent $G$. The gross rent $G$ includes a return to the capital in place. But it is important to note that the capital is sunk. Bygones are bygones. The property will be redeveloped only if the net rent, $N$, exceeds the gross rent $G$, on the old property. The net rent on the redeveloped property is the gross rent (new) minus demolition cost, minus the cost of the new construction.

Here the fact that old capital is earning a positive rent means that the redevelopment of existing land uses can occur only when the optimal land use justifies building either at significant increases in residential density and/or large increases in capital per unit. For example, holding the quality of construction constant it would make little sense to tear down a 2,000 square foot house and to replace it with a 2,100 square foot house. Similarly it would make little sense to tear down a 40-unit apartment (in the absence of physical deterioration) and to replace it with a 50-unit apartment.
The second aspect associated with it is that the demolition costs also serve to discourage redevelopment. Even if a building has no economic value - gross rents are zero (an example in Houston is an abandoned hotel on Montrose that has remained standing for many years. The demolition cost may simply exceed the value of the cleared land. The value of the cleared land will be the capitalized value of net rents). The demolition costs also serve to discourage redevelopment. Even if a building has no economic value - gross rents are zero (an example in Houston is an abandoned hotel on Montrose that has remained standing for many years. The demolition cost may simply exceed the value of the cleared land. The value of the cleared land will be the capitalized value of net rents).10

The redevelopment of existing land uses can occur only when the optimal land use justifies building either at significant increases in residential density and/or large increases in the capital per unit. The replacement of urban capital will happen only when the passage of time has rendered existing uses substantially "out of touch" with the current market. In a city which is spatially developing from the center outwards, this implies that the most central areas are those which get redeveloped. Only under very special circumstances - when the amount of housing capital in the existing stock sharply decreases with distance and lot sizes increase sharply is suburban redevelopment likely to occur. In essence, these conditions imply that there is little in the way of structure at the suburban location.

The replacement of urban residential capital, through redevelopment, will generally occur centrally, and at substantially higher densities than the land they are replacing. The population density which emerges under growth with capital replacement will decline. This pattern looks like the pattern predicted by the malleable model and contrasts with the flat or even increasing density gradient that can occur in the durable model without capital replacement.

The density gradients look far more similar to those of a malleable model solution than they do to the solution of an incremental growth model without capital replacement. Malleable models do well at predicting spatial outcome, but a poor job at explaining the process of predicting change.

So far we have not allowed for physical depreciation of capital. Such a model predicts a lower bound for capital replacement. In the real world, buildings burn down, and deteriorate physically over time. Both of these processes tend to reduce the opportunity rent for existing buildings and increase the frequency of replacement.

(1) When population growth is more rapid the density gradient becomes steeper with perfect foresight - central areas are more densely developed relative to myopic development. Central areas are more densely developed with perfect foresight as developers know that the population in the city will be larger in the future and rents in central areas will increase.
(2) Falling transportation costs and rising income lead to a flatter density gradient. This is consistent with the malleable model once we realize that here we are assuming durability and no redevelopment. With falling transportation costs developers know that the city will expand towards the suburbs in the future and so they develop each ring at lower densities.

However, relative to myopic development a city developed with perfect foresight under conditions of falling transportation costs will be less dense at the center. Developers know that even if current transportation costs are high and commuters are willing to pay high rents for central locations - the decrease in future transportation cost which is fully anticipated will decrease rent at or near the center in the future. Consequently, they will develop central locations at lower densities than they would if transportation were constant. This may help explain why cities such as Houston and Dallas have always had relatively low central densities.11

(3) Falling income and rising travel costs all tend to create a flat or even increasing density. If income falls or travel costs rise "sufficiently" the pattern of development will occur in a reverse, outside inward manner. In this case, density will always decrease with greater distance.

This result may seem odd at first, but it can be explained. The disadvantage of locating early development in the suburbs is that people will have to commute long distances to the center through vacant space. But there is an advantage; namely that low-density development further away will cost less per square foot of living space than high-density development at the center.

This result may be overturned if we are allowing for physical depreciation and redevelopment. The center will be developed first at low densities and then redeveloped at higher densities in the future when the population and travel costs are higher. The result that development is likely to take place from an outside, inward manner when transportation costs are rising, or incomes are falling is of little practical importance. However, the normative implications of the perfect foresight model are quite important. Market speculation in land may make an important positive contribution to the development of cities, which should not necessarily be discouraged through taxation or other incentives. Similarly, in designing new public development projects, the practices of land banking or open space zoning may be fully justified as mechanisms for preserving land which is currently developable, for future generations.

15
The writers that develop the durable capital model emphasize the durability, non-malleability of capital and postulate that urban structure should be explained as the aggregation of past patterns of development rather than an equilibrium adjustment to current condition. Homes and lot sizes do not change significantly from the time when particular areas of the city were developed. The observed negative density gradient is a mere historical artifact reflecting faster population growth, lower real incomes, and higher commuter costs, resulting in the higher density of older cities developed earlier.

As the city expands out the average commuting distance will increase. At constant commuting costs at constant nominal income real incomes will fall. The unexpected result of the model is unless money income increase or transportation costs fall the decrease in real income may lead to an increase in population further out. Population density increases with distance from the center rather than decrease as is implied by the traditional model of malleable capital.

A model of redevelopment myopic foresight is an interesting compromise between the durable capital model and the long-run malleability model allows for redevelopment. As the city grows outwards central values increase and it becomes profitable to redevelop central locations. As building will be older, more fully depreciated at the center and land is more valuable there will be a strong incentive to redevelop the central areas at higher densities. The process of redevelopment is a realistic version of the long-run equilibrium model. Increases in density are not carried out by adding to the height of existing buildings but through the redevelopment of land or by building on vacant land.

Another extension of redevelopment with perfect foresight extends the model but substitutes the assumption of myopic foresight with perfect foresight as it is possible to generate vacant land for speculative purposes. It will be profitable to withhold some centrally located land in order to develop it at higher density in the future. This consideration provides an efficiency basis for leapfrog development. More distant development, initially, implies higher commuting costs and lower land rents in the initial stages of development are weighed against the higher density and rents and lower overall commuting made possible by withholding from development centrally located land.

The second part of the discussion here is the costs of living in cities. These costs include higher housing costs, higher taxes and commuting costs, pollution costs (which are decreasing overtime) and crime. Crime Rates are positively correlated with city size. The
author claims that a portion of the higher crime is due to the higher returns to crime. Also social interactions are important in crime. There is also a lower probability of getting caught - in part because cities are more anonymous and have weaker social groups. But a large portion of the higher crime is due to a larger concentration of poor in cities.

Another major externalities of the urbanization is that cities cause poverty because of greater ethnic and class segregation in cities and because social interactions in dense areas can have unfortunate peer group effects. But Glaser argues that cities are poor not because cities make people poor, but rather because cities attract poor people.

The explanation for rising density with commuting distance can be explained by falling real income. As the early urban zone is frozen, an increase in population by increasing commuting distance will in the absence of decreasing travel speeds and increases in wage income decreases real income. This decrease in real income by decreasing the demand for land and house structure will decrease densities. The real incomes of the population living closer in will fall, as land rents will rise - as the city expands outwards.

The increases in density due to increased commuting distance will be offset by improvement in transportation and by rising real income. Even though we might expect population density to fall over time - they do not as early development was largely single-family housing and continues to be. The income elasticity of demand for land appears to be small once a quarter acre lot size is attained. Also decreases in density have been limited by rapid population growth and rising land prices.

When employment was more concentrated in the CBD it stimulated the development of public transit systems to service the center. The construction of subway, trolley lines and so forth had a centralizing effect. As access to CBD improved employment became more concentrated there (there was a feedback effect). Even today most public transit systems are oriented towards the CBD.

1.4.3 A model of residential location choice

It was developed by David Mills (1983). As per the earlier explanation given by Muth (1969), residential location choice is determined by housing services that combines land, structure and many other dimensions of value of housing. Households are induced to locate farther from the center because of savings available from low land costs at the same time they are induced to locate closer to the center because of decrease in the commuting cost. Thus the equilibrium location between land price and commuting cost is at the point where
marginal decrease in the expenditure on housing is equal to the marginal increase in the commuting cost for small change in the distance.

As per this model people derive utility from their proximity to open space. When people have such landscape preferences then (1) equilibrium residential development is mixed with undeveloped land, (2) equilibrium land price gradients depend sensitively on how land markets are organized and reflect the value of open-space, and (3) dynamic equilibria generally have the property that more remote areas are developed before more central areas. Finally, when compared to optimal development, equilibrium development houses too many residents, too close together, and remote areas are developed too soon. Urban sprawl is leapfrogging development associated with the geographic extension of urban areas far beyond the boundaries which they once had. At a glance sprawl appears to be the result of some kind of market malfunction. However sprawl itself is rational and more than likely optimal market response to the exogenous forces.

There are four major explanations for the existence of urban sprawl. One explanation refers to the heavy reliance on property taxes and differential tax rates between the central city and outlying areas. Another explanation notices that housing administration and housing subsidies plans have produced a built-in bias in the housing market towards the family which is most likely to purchase the house farther away from the center. Third explanation concentrates on the expenditures which have been made on transportation capital stock, including selection of transportation mode. Finally there are several other non economic factors like congestion, increasing crime rate which are responsible for urban sprawling. These results imply that equilibrium development may not be sprawling enough and that policies to encourage infill development may not be welfare improving.

1.4.4 Optimal City Size

This approach corresponds to much of the work done on the urban growth theory and urban dynamics. Optimum city size models were developed by Tinbergen (1968), Von Boventer (1973) and Richardson (1973). Two major issues which are discussed in this model are, one defining the most desirable and ‘optimal’ size of the city and two is the distribution of the size.

Optimum city size

While determining the optimum size of the city, the per capita cost of urban government services become key determining factor. The cost of these services initially fall
as the city begins to expand, but after reaching some minimum level, they start to increase; thus a typical U shaped cost curve.

On the other hand productivity (output per capita) increases with the city size. This increase is a result of agglomeration economies possible in large urban areas. However after certain size these agglomerations are more than offset by increasing congestion and other costs and in the largest cities productivity begins to fall. Thus the productivity curve takes inverted U shape curve.

Individuals do not only derive benefits from their monetary incomes but also from a wide range of facilities which a city can offer in terms of social amenities (like public transport, shops, theatres, and clubs). These particular types of benefits tend to increase with the city size, but not at the decreasing rate. Thus the social benefit curve is flatter one.
Diagram 1.1: Cost and benefits to the individuals associated with the city size

It can be observed from diagram 1.1 that average benefit curve (AB) is flatter inverted U shaped curve while marginal benefit curve (MB) is steeper. Marginal benefits are the benefits accruing to each additional member of the urban community. On the other hand similar behavior can be observed for average cost (AC) and marginal cost (MC) curves which are typical U shaped curves.

Point P₁ indicates the minimum size of the city below which the AC>AB. At point P₂, the vertical distance between the AC and AB curve is maximum which indicates the maximum net benefit to the citizens residing in the city. However this is not a stable equilibrium as it attracts more and more migrant population till the city size reaches at the point P₃ where the long run stable equilibrium is attend with AB = AC¹². Hence it can be observed that the ‘quality’ of the urban environment is inversely related to the city size. Here while defining the city size not only the population in absolute number should be considered but the density of the population becomes important factor¹³.

Distribution of city size

The earlier works in this area suggest that countries all exhibit similar distribution of city size and the urban hierarchy is corresponded to the ‘rank size distribution’ where the ranks of the city times its size always yield a constant product¹⁴. It is assumed that a hierarchy of the cities exists because it is possible to provide some goods and services especially those for a local market, more efficiently and cheaply in the smaller city while other can be more economical provided by the larger cities. Here the Central Place theory can provide fairly accurate account of distribution of retailing and other services but tend to be less helpful while considering manufacturing industry.
The position of any city in the hierarchy will therefore be determined by the particular type of industry it can attract. Here the empirical evidence shows that firms catering for national or international markets prefer to establish their main offices in the largest city because of agglomeration economies that is offered there. Further to add on, the public sector tends to reinforce the city size distribution created by the industry. Thus the largest cities are also the seats for the government and administration.

The present model if different from the earlier theories as the earlier theories discussed the possibility for a small economy where there is a single Giant City that is too large in the sense that the secondary city developed too late in time. This is equivalent to the statement that the primary city became larger than is socially optimal before the secondary city developed. However in the present model, the idea of ‘universal optima’ is replaced by the series of optimal city sizes, each corresponding to their rank in the national hierarchy.

Part III: Application of theories and models of urban economics in Indian context

The researcher has made an attempt to study the application of theories / models of the urban economics in India, Maharashtra state and Thane.

1.5 Urbanization in India

The trend of urbanization in case of India gathered momentum in the post independence era. At the time of independence India was called as the country villages. However this description is outdated in the present context. In the 21st century India is changing its face with rapid growing urbanization.

The growth pattern of urban systems is not balanced. Out of the 23 metropolitans, four urban agglomerations (Calcutta, Mumbai, Delhi & Chennai) accounts for 1/3rd of urban populations in India and nearly 1/4th urban population living in class I urban agglomerations. Only 3% of total urban population is staying in class V towns. Such a process of imbalanced urban population distribution and distorted settlement structure has the serious implications of generating employment and creating thereby a sustainable economic base.

The population data on rural and urban distribution provided by 1991 Census reveal a distinct increase in the proportion of urban population in India. In 1991 urban population of the country was 25.72 per cent of that of 1981. Presently India’s urban population is larger than the urban population of all countries except China. Thus the absolute terms India’s urban population is quite large and its significance must be clearly appreciated for the future
development planning of this country. In interpreting the data on rural-urban distribution of population, great care is required as the concept of urban area is not the same under various censuses. The number of town have fluctuated from decade to decade on account of changes in the definitions and concepts.

The 1971 Census introduced a term Urban Agglomoration which includes the suburban outgrowths of a particular town with that town itself. This concept enables us to compare more effectively the sprawl of different urban centers especially the spread of large cities into their adjoining areas. In 1971 the UAs having population greater than one million each were – Calcutta, Greater Bombay, Delhi, Madras, Hyderabad, Ahmedbad, Banglore, Kanpur and Pune. The number of million plus UAs rose to 12 in the year 1981. The new centers were – Nagpur, Lakhnow and Jaipur. In the decade 1981-91 another 11 were added including the cities like Indore, Kalyan, Bhopal and Surat.

In the context of the existing theories about the process of urbanization like the "Central Place Theory" or the new "Economic Geography Approach" of Krugman and Fujita explains the process of urbanization. However they talk very little about the major stake holders of urbanization and their relative contribution. Apart from these theories, there are various explanations regarding agglomerative implications of size and diversity in the cities. The application of these theories in the Indian context can be summarize as follows.

A. Economic geography approach:

The urbanization process in India clearly indicates the cumulative causation principle explained in the economic geography approach. The four major metros of India has strong colonial genesis in their development.

The development of the other cities like Pune or Nagpur indicates the “footloose” development. A fundamental difference between agriculture and manufacturing is that agriculture requires natural resources (land) as an input. In contrast, manufacturing services (banking, law, medicine, education) are much more "footloose". They can move anywhere as long as demand justifies the locational choice. In particular, the footloose industries can locate and cluster in urban areas, where they are close to large population that increase the demand for their products, and they are also close to suppliers of components and to complementary inputs purchased from banking, advertising and other business services. Firms will want to locate where other firms are located as they prefer production sites that are close to large markets. So once firms locate at a particular location other firms will be drawn
to and will profit from that location. This is a simple example of a feedback loop — or circularity where the location of demand, in part, depends on the location of production.

However while studying the present days urbanization pattern, it is observed that there is delinking between actual production and administrative activities. Tele-communication services, internet has made it possible to carry on the business activity without face to face contact between the production and administration. Thus the urbanization without industrialization which was looked upon as a threat to urban habitat is no more a matter of worry.

B. Durable Capital Model:

The finding of the durable capital model is observed to be true in the context of almost all Indian cities is the Glaser’s argument that cities are poor not because cities make people poor, but rather because cities attract poor people. The study of the migration trend in case of Thane clearly indicates that the migrations of the poor and economically backward class if still prominent in the locations which are situated in the outskirts of the city.

C. Optimum city size

It concludes that the secondary city develops too late only when the primary city becomes larger that it’s socially optimal level. This is not applicable in case of the growth of the micropolitans in India as the migration from metro towards the micropolitans start at much early stage. It is observed that in case of Thane the migration from Mumbai towards the suburbs like thane had started around 1970s when Mumbai was still growing as a metro.

1.6 Urbanization in Maharashtra

India is a very big country in terms of both area and population. Its states are larger than most of the countries in the world. Therefore in any meaningful study regional patterns of urbanization must be carefully examined. As far as the urbanization is concern, three of the most urbanized states in India, namely, Maharashtra, Gujrat and Tamilnadu have over 34% urban population. In the early phase of planned development these states had received big boost as a result of which the industrialization was fast.

As far as Maharashtra is concern, it is located on the western side of India and has a long coastal strip along the Arabian Sea and the Sahyadri ranges in Western Ghat parallel to the coastline. The state is divided into four regions namely Western Ghat, Marathawada, Vidarbha and Konkan region. Administratively Maharashtra state has 35 districts and 353
tahasils in 2001. The total population of Maharashtra doubled in the three decades after the creation of the state in 1961; reaching 78.9 million in 1991 and 96.7 million in 2001.

Population growth in Maharashtra during the four decades has contributed 10 percent to the decadal population growth of the country. Maharashtra has been a destination for a large influx of migrants from other parts of India. Net migration has contributed 19 percent to its population growth during the last decade. It has the largest number of (7) cities (Greater Mumbai, Pune, Nagpur, Thane, Kalyan-Dombivili, Nashik, Pimprichinchwad), which has crossed one million populations at the 2001 Census and account for 28.8% of the total million plus cities population. Maharashtra offers an interesting case of unbalanced urbanization due to the presence of one of the major colonial port cities of India, i.e. Mumbai and the whole urbanization of Maharashtra is centered around Mumbai.

By taking a quick review on the urbanization process of Maharashtra one can observe that, in 1981 out of nearly 63 million population of Maharashtra, about 22 million were residing in urban areas. The level of urbanization was 35.03 percent. The density of population was 204 persons per sq. km. The sex ratio was 937 female per 1000 males. The 307 cities and towns were registered in Maharashtra.

In 1991 out of the over 79 million population of Maharashtra, over 30 million were residing in urban areas. The percentage of urban population was 38.69 percent. Maharashtra maintained 3rd rank according to size of population. So out of total population of India, 3.61 percent were residing in urban area of Maharashtra. The density of population was 257 persons per sq. km. The sex ratio was 934 female per 1000 males and the urban sex ratio was 875 female per 1000 males. The 336 cities and towns were registered in Maharashtra.

In 2001 out of the nearly 97 million population of Maharashtra, over 41 million are residing in urban areas. The level of urbanization is 42.40 percent. Among all the major states of India, state Maharashtra rank 2nd according to size of population with 9.42 percent Indians residing in the state. So out of the total population of India 3.99 percent people residing in urban areas of Maharashtra. The density of population is 314 persons per sq. km. The sex ratio is 922 females per 1000 males and the urban sex ratio is 874 females per 1000 males. The 336 cities and towns are registered in Maharashtra. In these total numbers of towns and cities there are 19 Municipal Corporations, 225 Municipal Councils, 7 Cantonment Board, 127 Census Towns and 15 are Urban Agglomerations. Though the
density of the population in the urban areas has increased, the sex ratio has decreased, and in case of the urban areas it is at the alarming stage.

The urbanization process and the growth pattern of Maharashtra clearly indicate the application of the 'Central Place Theory'. The whole urbanization of Maharashtra is clustered around the growth of its capital city Mumbai. Urbanization is highly concentrated around the places of historic significance. In case of Mumbai, one of the reasons was that it was a natural harbor. Another major reason behind its location was it’s location near Thane which was a major district administrative town during the colonial era. This point is elaborated while studying Thane in its historic perspective in the next chapter.

The decentralization policies have lead to the shift from center-based to region-based urbanization. As pointed out in earlier study (Seeta, 1999), Mcgee’s model (1991) of the ‘extended metropolis’, is applicable in this context. (A) the major centers of Mumbai, Pune and to a lesser extent Nashik; (B) the periphery region within the commuting reach of the city cores, in which large satellite towns such as Kalyan, Thane, Navi Mumbai, Pimpri Chinchawad etc. flourished; (C) the ‘dekota’ region in which the non-agricultural activities along transport corridors are intermixed with agriculture.

1.7 Urbanization in Thane -

The level of urbanization in Maharashtra is much higher than the national average. However it shows the unbalanced trend. The districts not only vary in the level of urbanization but they vary in the speed of urbanization i.e. the annual change in the level of urbanization. In Thane and Raigrah the speed of urbanization was very high as compare to the other districts. The development of Navi Mumbai was instrumental in the increase in the urbanization in these districts. Thane is the only district with six municipal corporations along with other smaller towns and municipal councils. The demographic profile shows continuous growth in the population of the district which mainly attributes to the industrial, commercial, administrative and strategic development of the district by being proximate to Mumbai city. The overall economy is versatile and the district does not have a pre-dominant economic base. The economic indicators show that the secondary sector and the tertiary sectors are the key sectors which contribute to the district economy. The comparisons of the per capita income of the Thane City with that of Mumbai, and Thane District with that of Maharashtra are shown in the table given below:
Table 1.1: Per capita income of Maharashtra, Thane district, Thane City and Mumbai

(Fig in Rs.)

<table>
<thead>
<tr>
<th>Year</th>
<th>Maharashtra</th>
<th>Thane District</th>
<th>Thane City</th>
<th>Mumbai</th>
</tr>
</thead>
<tbody>
<tr>
<td>1993-94</td>
<td>12326</td>
<td>17521</td>
<td>21376</td>
<td>24382</td>
</tr>
<tr>
<td>1998-99</td>
<td>15804</td>
<td>23558</td>
<td>28741</td>
<td>31922</td>
</tr>
<tr>
<td>2003-04</td>
<td>N.A.</td>
<td>38568</td>
<td>47053</td>
<td>N.A.</td>
</tr>
</tbody>
</table>

Source: Thane Municipal Corporation City Development Plan

The GDP of the Thane city as compared to that of district GDP is about 19%. The district comprises of 988 units which contribute to the district economy and hence as compared to the city GDP seems to be substantial.

As the Central Place Theory talks about multiple employment centers, including suburban employment centers - outward commuting as well as suburb to suburb commuting; this can be closely linked with respect to Thane city. With respect to Thane city it is observed that, the development of Navi Mumbai, Thane Belapur Industrial Belt, Dombivali (MIDC area), Kalyan and even Badlapur, has resulted into more stress on the commuting modes. Suburban to suburban transport has become very complex and the number commuters have increased at the exponential rate. This has resulted into a mismatch between the number of commuters and the available modes of transport.

The above model states that the replacement of urban residential capital, through redevelopment, will generally occur centrally, and at substantially higher densities than the land they are replacing. In case of Thane city it is observed that though the redevelopment of the central city is taking place it is not at the higher density. In case of the Thane city, the central location is less dense as compare to the outskirts because high raised building and bigger complexes are coming up at the outskirts. This is because replacement of urban capital can happen only when the passage of time has rendered existing uses substantially "out of touch" with the current market. Thus the centrally crowded areas like Naupada, Ram Maruti Road, Jambhali Naka which were a major market and retailing places has lost their significance because of the ‘mall culture’.

When population growth is more rapid the density gradient becomes steeper with perfect foresight - central areas are more densely developed relative to myopic development. This finding of the durable capital model is not applicable in the context of Thane city because in case of Thane the higher density trend is from outside in. The development of the Thane city
is observed to be with a perfect foresight as against the myopic development as with the falling transportation costs the center is less dense as compare to the outskirt. Thus the population density increases with distance from the center rather than decrease as is implied by the traditional model of malleable capital.

With reference to Thane city, it can be observed that people definitely have preference for the open space. That is one of the reasons of the development of the peripheral areas like Ghodbunder Road, and the villages of the roadside like Waghbill, Owala, Patlipada etc. this preference is observed mainly into the elite class and the higher income groups who have migrated from the center to periphery. However the lack of the development in terms of infrastructure, road and connectivity is causing bottlenecks in terms of the development of these areas.

As far as the urbanization and the growth of the population is concern, as per the projection of Thane Municipal Corporation the population of the city upto the year 2041 is assumed to be 41,73,305 But as per projections of the development plan, if the present development plan and development control regulations, remains same with no major change, the population upto projected year 2031 in the vision i.e. 33,66,556 may be accommodated in the city, which could be called as the "Carrying capacity " of the city\textsuperscript{18}.

While studying the urbanization process and urban development of Thane, the role of the major stake-holders become essential.

1.7 Major stake-holders in the urbanization process of Thane

ONE OF THE OBJECTIVES OF THE PRESENT RESEARCH IS TO FIND OUT THE MAJOR STAKEHOLDERS OF URBANIZATION PROCESS AND TO EVALUATE THEIR COMPARATIVE ROLE. THE RESEARCHER HAS MADE AN ATTEMPT TO STUDY THIS OBJECTIVE IN BRIEF IN THIS SECTION WHILE THE DETAILED ANALYSIS IS FOLLOWED IN CHAPTER FOUR WHERE THE PRIMARY DATA AND FIELD OBSERVATIONS INDICATE THE MAJOR STAKEHOLDERS AND THEIR COMPARATIVE ROLE IN THE URBAN DEVELOPMENT OF THANE CITY.

A. Existence of metropolitan city i.e Mumbai

The two national highways that connect the Mumbai with the rest of the world pass through Thane. They are Mumbai-Agra National Highway and Mumbai-Ahmadabad National Highway which are the main commuting corridors which connect Mumbai with the
rest of the world. Apart from this, the two major railway lines pass through Thane railway station. They are Mumbai-Chennai Railway line and Mumbai-Kolkata. Thus the existence of Mumbai and its close connectivity with it is a major factor responsible for the urban development of Thane. The city’s locational advantage has facilitated fast and easy access, both internally and externally. The geographical location of Mumbai and Thane can be observed from the Map 1.1.

From the Map 1.1 it can be observed that Thane is a major connecting point for the Mumbai island by road and railway. The impact of the existence of Mumbai on the urbanization process of Thane is studied separately in chapter four.
Urban Local Body (Thane Municipal Corporation)

Rural-urban classification constitutes an important framework for the collection and compilation of population data in many countries. While "urban" is often specifically defined, "rural" is treated simply as a residual category. One should understand that these rural and urban statistical categories are also highly significant for local governance, increasingly so in recent years given the emphasis on local governance and its restructuring.
In India, constitutional amendments have given constitutional status to local bodies in the federal structure of the country. Local bodies are thus now expected to draw up their own plans and initiate development works, which requires them to generate their own resources and lessen their dependence on central government funding. It is thus necessary to reorganize urban space into viable spatial units in terms of their revenue base. While rural-urban classification is the task of the Census of India, state governments are responsible for granting municipal status to urban centers. While urban local bodies are entrusted with the additional responsibilities, the grants and funds on the other hand are shrinking. Thus there is urgent need to innovate newer ways of fund raising apart from the traditional sources.

ONE OF THE OBJECTIVES OF THE PRESENT RESEARCH IS TO CRITICALLY ANALYZE THE ROLE OF THANÉ MUNICIPAL CORPORATION IN THE DEVELOPMENT OF THE THANÉ CITY. THE RESEARCHER HAS MADE AN ATTEMPT TO STUDY THIS OBJECTIVE IN BRIEF IN THIS SECTION WHILE THE DETAILED ANALYSIS IS FOLLOWED IN CHAPTER FOUR WHERE THE PRIMARY DATA AND FIELD OBSERVATIONS INDICATE THE ROLE OF THANÉ MUNICIPAL CORPORATION IN DETAILS.

Thané Municipal Corporation has played a major role in the urban development of the city. Since its inception, through various Urban Development Plans it has set a clear goal and the vision for the balanced development of the city. In City Development Plan, the VISION - 2031 indicates the planning with the future perspective. The adage of the plan 'Imagine ahead- plan backward' points out the VISION to make Thane a global metropolis and a world class city, where the people of Thane can experience growth in their standard of living and improved qualities of life in a sustainable environment.

With the Government of India launching the Jawaharlal Nehru National Urban Renewal Mission (JNNURM), the Corporation has translated the action plan into business plan while formulating the city development plan. The overall process of formation of CDP for the city of Thane has been a comprehensive consultative program. TMC has adopted an analytical approach while formulating the CDP. The overall process has involved conceptualization, thorough consultation with the citizens and all the stake holders, implementation, monitoring and documentation.

The CDP focuses on identification of thrust areas, effective exploitation of growth engines, efficient development in an equitable and sustainable manner, enhancement in
Governance, initiation of financial reforms and promoting means of livelihood for urban poor.

Thane Municipal Corporation has fairly good financial condition, which can lead the authorities to raise the funds through various innovative methods like issuing of Municipal Bonds and even the private borrowings from banks and NBFIs.

The investments in the following infrastructure have been prioritized as Underground Sewerage System, Integrated Nalla Development Project, Station Areas Transport Improvement Scheme, Additional 100 MLD Water Supply Scheme, Road Connectivity & Linkages, Area Level Improvement Schemes (Subways, Flyovers), Road Concretization, Slum Redevelopment, Slum Improvement Schemes, Lake and Creek Conservation Programme, Development of Recreational Places. The prioritization has helped the Corporation to prepare a schedule for each activity and finally to execute the CDP in a time bound and disciplined manner.

ONE OF THE OBJECTIVES OF THIS RESEARCH STUDY IS THAT WHETHER LOCAL SELF GOVERNMENT IS A KEY FACTOR IN THE DEVELOPMENT OF THANE. THE RESEARCHER HAS TESTED THIS HYPOTHESIS IN THIS SECTION AND IS FOUND TO BE TRUE. Thus Thane Municipal Corporation is one of the major stake holders in the urban development of the micropolitan city like Thane. It is going to remain a key factor in the determination of the growth pattern and the pace of the urban development as it acts as the major facilitator for the balanced urbanization of the city.

B. NGOs

NGOs act as a key instrument in the socialization process and social integration. Thane has around 36 NGOs which are active in the social, cultural and educational field. However these NGOs have strong communal and religious base. They are more of a caste or community based groups for the upliftment and social protection of a particular group.

Some of the NGOs like Hariyali, Innerwheel, Bapu Trust, Rotary Club are active in the environmental movement through spreading education and awareness. Some other NGOs like IPH, Darmavir Anand Dighe Special School, Jidda, Divya Prabha are active in Psychological Health related issues. However by and large it is observed that the caste and religion based organizations is dominant in the social and educational aspect.
As far as the peoples' participation in these organizations is concern, it is analyzed and studied separately in chapter four which gives more insight into the working of NGOs as one of the stakeholders in the urbanization process.

1.9 Conclusion

Urbanization is a complex process where the economic forces like industrialization, development of infrastructure are only one of the few factors. A part from these economic factors, every city has a strong historic perspective for its location and subsequent development. This is explained through cumulative causation principle under the economic geography approach. Apart from the historic perspective the other major factor to which the urbanization process can be attributed to, is the existence of durable capital and economies of scale. In all these aspects the micropolitan city like Thane definitely enjoys the advantage of being in proximity with the metropolitan city like Mumbai.

However some of the theories also lay emphasis on the social factors like homogenous communities, peer-group effects and even the psychological factors like the need for open space, need for social security behind selecting a particular urban location at the time of migration. These factors are also observed to be important in case of the urbanization process of the micropolitan city like Thane.

The present trend in the urbanization of Thane brings one more point to focus that earlier it was said that the urbanization without industrialization leads to what is commonly called “pseudo urbanization” or “over urbanization”. However in the present world apart from the industrialization, the other drivers of the urbanization can be locational advantage in terms of proximity to the market, economies of scale, connectivity etc. Some of the potential growth engines for industrialization have identified so far include the manufacturing sector, construction sector, the services sector (IT and BPO) and the retail sector which have ample scope in case of Thane city. A strong foundation of any one of the above factors is the prerequisite for sustainable urban growth. In case of Thane, it offers a tremendous opportunity for the ITES-BPO sector, due to its affordable pricing, fresh air and open, green spaces. Once multinationals start taking up office space, this will also lead to a demand for quality residential space, so the construction sector has potential to become one of the major growth-drivers for Thane in the future. The three major thrust areas over here are; the first - physical infrastructure, transport and power - will include regional linkages, missing links
and additional link roads, flyovers, bridges, sub-ways, the ring route or MRTS, augmentation of existing roads, public transport, power sector and conservation programme. The next thrust area - environmental infrastructure - will cover water supply and sanitation, solid waste management, development of parks, botanical or zoological gardens, conservation of lakes and creeks. The final thrust area - social infrastructure - will focus on education and health, housing, slum redevelopment programmes, the development of playgrounds, stadiums and sports complexes and the development of tourism attracting areas.
Reference:
1. Mishra, Puri; Indian Economy; Himalaya Publication, Mumbai; 1996
2. Reissman L.; The urban process: Cities in the industrial society; Collier MacMillan Free Press; 1964
4. 5 Masahisa Fujita; Urban Economic Theory: Land use and city size; Cambridge University Press, Cambridge; 1989
8. Gravin Jones and Pravin Visaria; Urbanization in large developing countries (China, Indonesia, Brazil & India); Clarendon Press, Oxford; 1997