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CHAPTER III

PROFILE OF THE STUDY AREA

3.1 INTRODUCTION:

The purpose of this chapter is to study the profile of the study area i.e. Navi Mumbai. It includes evolution of Navi Mumbai, physical features Boundries, ecology, Geology, Climate, Demography, Economic profile, Housing, Commercial and Industrial growth, Transport and also profile of Navi Mumbai Municipal Corporation (NMMC) and Navi Mumbai Municipal Transport (NMMT).

Navi Mumbai, the city of 21st century is being developed as counter magnet to Mumbai, with the basic objective of curbing further growth of megacity of Mumbai. The new city is being developed as series of nodes strung along an efficient Mass Transport System in the form of Commuter Railway Network well connected to Mumbai and Thane.

The well planned transportation network consisting of road, rail and water ways system makes Navi Mumbai easily accessible from all parts of the country. The proposed Domestic cum International Air Port is envisaged to further enhance this accessibility.

To make the city attractive and better place to live in, all the required physical and social infrastructures are being provided to a very high standard. To meet the demand of all sections, related facilities like hotels, International convention center, International exhibition centre, Golf course, Sport complex, International super markets, Hospitals, Amusement park, Special Economic Zone (SEZ) etc. Information Technology (IT) are also being developed.
The profile of study area is divided in three parts which are as follows:

(A) Profile of Navi Mumbai
(B) Profile of NMMC (Navi Mumbai Municipal Corporation)
(C) Profile of NMMT (Navi Mumbai Municipal Transport)

3.2. PROFILE OF NAVI MUMBAI:

Profile of Navi Mumbai includes Evolution, Projects, Physical Features, Climate, Demography, Land use pattern, Industrial and Commercial development etc.

3.2.1 Evolution of Navi Mumbai:

In 1958, the government of Bombay appointed a study group under chairmanship of Shri S.G Barve, Secretary to government, public works department to consider the problems relating to congestion of traffic, deficiency of open spaces and play fields, shortage of housing and over concentration of Industry in the metropolitan and suburban areas of Mumbai and to recommend specific measures to deal with these. In the same year the Mumbai Municipal Corporation decided to prepare the development plan for Greater Mumbai as required by the Bombay Town Planning Act, 1954. The Barve Group submitted its report in February, 1959. One of the major recommendations was that a rail cum road bridge to built across the Thane Creek. The Group felt that bridge would accelerate development across the Creek and relieve pressure on the city’s railways and roadways and draw away industrial and residential concentrations.

The Bombay Municipal Corporation published the development plan in 1964. This densely worked and detailed land use plan (which is all that it effectively was) stopped abruptly at the boundaries of the city. While this might
have seemed natural on the west, south and east, where the sea provides a seemingly incontestable boundary, to the north the boundary was an arbitrary line cutting across land on the Mumbai Peninsula. To stop planning abruptly at that boundary, deliberately ignoring whatever might happen beyond because that lay technically outside one’s jurisdiction, showed extraordinary lack of imagination or a lack of understanding of what planning is all about. Indeed, to the east the project of constructing a bridge across Thane creek was already under way, the major new part at Nhava sheva was being planned and many industries had already started functioning in the Thane-Belapur Belt.¹

The proposal for New Bombay published in 1965 (correa et al. 1965) elaborated this idea.

The government of Maharashtra accepted the Barve group recommendations. This brought out the need to examine metropolitan problems in a regional context and to do this the Government appointed another committee under the chairmanship of Prof. D.R. Gadgil, the director of the Gokhale Institute of Politics and Economics Poona. The committee was asked to formulate broad principles of regional planning for the metropolitan regions of Bombay-Panvel and Poona and to make recommendations for the establishment of Metropolitan Authorities for preparation and execution of such plans.

The Gadgil committee reported in March, 1966 and recommended that a Regional Planning Act be passed by the Government to provide for the creation of Regional Planning Boards for notified regions, and that, to start with such Boards should be set up for the Bombay and Poona Regions.

The Maharashtra Regional and town planning Act was passed in 1966 and brought in to force in January, 1967. The Mumbai Metropolitan Region was notified in June, 1967 and Regional planning Board was constituted under the chairmanship of Shri L.G. Rajwade I.C.S. The Draft Regional plan of the Board was finalized in January, 1970. It proposed the development of twin city across the harbour on the mainland to the east, as a counter magnet to the office
concentration taking place at the southern tip of Mumbai. In making this recommendation, the Board was influenced by various factors such as the existing Industrial sites in the Thane-Belapur area and Taloja, the imminent completion of the Thane Creek Bridge and the proposal of the BombayPort Trust to establish a new port at Nhava-Sheva.

The recommendation to develop twin city across the harbour mode by the ‘Regional planning Board’, for the Bombay metropolitan Region was accepted by the Govt. of Maharashtra. Accordingly, the City and Industrial Development Corporation Ltd; (CIDCO) was incorporated under Indian Companies Act, 1956 in March, 1970, CIDCO was designated the new town development authority for Navi Mumbai Project. In October, 1971, CIDCO undertook to prepare and publish a Development plan as required by the Maharashtra Regional and Town planning Act 1966.  

3.2.2 Navi Mumbai Project:
Navi Mumbai Project, one of the world’s largest New Town Project was taken up and conceived in early 1970’s. The new city on mainland now known as ‘Navi Mumbai’ was planned on 34,400 hectares area to be developed over a period of two decades.
The Navi Mumbai project is shown in table 3.1 which is as follows:

Table 3.1
NAVI MUMBAI PROJECT AT A GLANCE
(Area in Hectares)

<table>
<thead>
<tr>
<th>Description</th>
<th>Area (Hectares)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total project area</td>
<td>34,400</td>
</tr>
<tr>
<td>Government Land</td>
<td>10,137</td>
</tr>
<tr>
<td>Private Land</td>
<td>16,567</td>
</tr>
<tr>
<td>Area under salt pans</td>
<td>2,720</td>
</tr>
<tr>
<td>MIDC Land</td>
<td>4,321</td>
</tr>
<tr>
<td>Municipal Area</td>
<td>596</td>
</tr>
<tr>
<td>Gaothan</td>
<td>59</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>34,400</strong></td>
</tr>
</tbody>
</table>

Total Private Land acquired

(End of July – 1985) 6,200

Total Government Land 5,035

**Total** 11,235

Source – Navi Mumbai, An outline of project

Table 3.1 shows the total project area and its division according to ownership and nature of its use. It also shows that Navi Mumbai project area covered variety of land.
3.2.3 Navi Mumbai Project Objectives:

The following objectives were set forth for CIDCO, for its Navi Mumbai Project.

1. To reduce the growth rate of population in Greater Bombay by creating an attractive urban area on the land across the Bombay harbour which will (a) absorb immigrants who would otherwise come to Bombay; and (b) attract some of Bombay’s present population.

2. To support statewide location policies which will lead eventually to an efficient and rational distribution of industries over the state, and to a balanced development of urban centres in the hinterland.

3. To provide physical and social services which raise living standards and reduce disparities in the amenities available to different sections of the population.

4. To provide an environment which permits citizens of the new city to live fuller and richer lives-free, in so far as possible, of the physical and social tensions which are commonly associated with urban living.

5. To provide training and all possible facilities to the existing local population in the project area, to enable them to adopt to the new urban setting and to participate fully and actively in the economic and social life of the new city.

To accomplish the objectives laid down, CIDCO commenced the developmental activities like the township of Vashi. It was taken up for development in 1970’s. This was followed with setting up township at Belapur, New Panvel, Nerul, Kalambo, Airoli, Kopar Khairane, Sanpada, Kharghar, Dronagiri, Ghansoli, and Jui Kamothe etc.
3.2.4 Boundaries and Areas of Navi Mumbai

Navi Mumbai is a part of south Konkan coast line. This coast line joins the Sahyadri mountain ranges in south and 50-100 m. high hills in coast.

Navi Mumbai area lies between mountain ranges and coast line. Navi Mumbai is located between 19°.5″ and 19°.15″ latitude and 77°.55″ and 73°.5″ longitude. The boundaries of the Navi Mumbai are governed by natural features to some extent and administrative boundaries of the existing villages to a large extent. On the western side is the Thane Creek. In the northern portion the eastern boundaries are governed by the Parsik Hills, and in the middle portion the eastern boundary runs along the administrative boundaries of the villages between Taloja and Panvel along the foot of Adai Hills. On the southern side the boundary coincide inside with the southern limit of village Kalumre and then runs in a south west direction up to village and then change along the Karnala hills on the southern side out side the project area. The south-western corner fronts on the confluences of Thane Creek, Karanja Creek and Dharmtar Creek.

The total area of the designated is 343.70 sq.kms. The area includes the Thane Belapur and Taloja Industrial Estates of MIDC and excludes the already developed areas of urban (entire municipal limits) and Panvel (old Municipal limits).

Most of the areas along the western boundaries from north to south is low laying land covered by high tide.
3.2.5 Physical features of Navi Mumbai:

The Parsik hill range forming the eastern boundary in the northern portion runs north to south up to Panvel Creek, where the designated area enlarges extending eastwards side to a considerable extent, some of the peaks of the Parsik hills which fall in the designated area, rise to a high of 235 metres and above and have steep slopes on the side in between the height to 20 meters and 200 meter. There are a few points from where good views of the city Mumbai and various parts of new Mumbai site are available. In particular Devi saddle point and the Samadhi hill point. The Adai hills to the east of Panvel and Karanja hills near Panvel also offer a beautiful background of hill ranges to the Navi Mumbai site. The middle portion of the Navi Mumbai area of the south of the Panvel Creek, comprises of villages Ulve, Targhar, Bambni, Padegha Kundevahal, Vahal etc.

There are two other steeply rising hills in the south portion in urban Tehsil, one of them is Mora hill which is mostly in the possession of the defence department and further south in Dronagiri hills. The area on both sides of Dronagiri hills offers a view of the water front of Mumbai harbour on the west and north and Karanja Creek on the south east where there is considerable fishing activity.

The islands of Nava sheva, which are separated from the other portion of the project are by low laying land also are scenically beautiful spots. There is a creek between these two islands, which is deep enough for berthing large ships. It is here that the Mumbai port trust has developed new docks.

Most of the areas in southern part of the Thane Belapur belt along the Creek side and area to the east of Sheva and urban up to the firm land of the south east and also to the east at Karanja, along the Karanja Creek are being used for salt production. The Panvel Creek is in the central portion of the project area. It surrounds Waghivali island which is mostly covered at high tide, a number of
small inlets enter further inside towards Taloja on the north Kamothe on the east Panvel on the south east and village Dapoli on the south. The village Kamothe is surrounded on three sides by such small creeks. Large portion of the villages of Kharghar, Kothekhar, Navadekhar, and Pandhar are covered by low areas along the creek.

The river Gadhi originating from Matheran hills meets the Panvel creek where the river Kaleendri also joins. It is on the southern side of Panvel.

### 3.2.6 Geology

Geologically, the entire area is Deccan Lava County. There are a number of rocks out crops through out the area.

Thus from the physiographic point of view there are four major hills within the designated area and some other smaller ones are spread out in the central portion north and south of Panvel creek. The remaining port gradually rules from MSL (main sea level) to an average height of 20 meter. There are large areas along the shore line which are covered by high tides. The high water is spread inside up to Taloja and Panvel through creeks. The coastal area has some island like Jui, Waghivali, Nhava sheva and Panja donagiri, Elephanta island, which is picnic spot for Mumbai residents, it is just west of Nhava sheva, outside the designated site.

### 3.2.7 Climate, Rainfall etc

Navi Mumbai's temperature varies from 22°C to 36°C. In winter temperature is between 17°C to 20°C while summer temperature ranges from 36°C to 41°C. Out of total rainfall, 80% rainfall is experienced during June to August. Average annual rainfall is 2000-2500 mm and humidity is 61-86%.
Indian Meteorological Department (IMD) has station in Thane Belapur Industry Association (TBIA) premises which daily collects meteorological data. Based on IMD observations, predominant wind direction in Navi Mumbai is southwest in monsoon and north east during rest of the year.

Micrometeorological observations were noted by setting up station at CBD Belapur on 03-04-2002. The maximum and minimum wind speed was 8.8 km/hr and 0.9 km/hr respectively. The predominant wind direction was NE. The maximum and minimum temperature was 32°C and 27°C. The maximum and minimum relative humidity values noted were 96% and 17% as per MPCB and 50% and 24% during observation.

3.2.8 Total Housing Stock:

Total number of dwelling units constructed in all nodes to gather by private sector and CIDCO account for 210,773 numbers.
The table No.3.2 shows number of dwelling units constructed by CIDCO and private sector.

**Table 3.2**

NUMBER OF DWELLING UNITS CONSTRUCTED IN NAVI MUMBAI

<table>
<thead>
<tr>
<th>AGENCIES</th>
<th>NO. OF DWELLING UNITS</th>
<th>% SHARE</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIDCO For BUDP</td>
<td>14,538</td>
<td>07</td>
</tr>
<tr>
<td>OTHERS</td>
<td>94,245</td>
<td>46</td>
</tr>
<tr>
<td>TOTAL CIDCO</td>
<td>108,783</td>
<td>53</td>
</tr>
<tr>
<td>PRIVATE SECTOR</td>
<td>101,990</td>
<td>47</td>
</tr>
<tr>
<td>TOTAL</td>
<td>210,773</td>
<td>100</td>
</tr>
</tbody>
</table>


The share of CIDCO, in the total dwelling units constructed is 53% and private builders share is 47%.

Share of dwelling units according to Economic Classes.

The Table no 3.3 shows the dwelling units under LIG MIG-1 MIG-2 and HIG.
TABLE 3.3
Share of Dwelling Units According to Economic Classes.

<table>
<thead>
<tr>
<th>Agency</th>
<th>Break up of DWELLING UNITS FIGURES IN NOS. AND PERCENT</th>
<th>TOTAL No. of Dwelling Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LIG</td>
<td>MIG 1</td>
</tr>
<tr>
<td></td>
<td>Nos</td>
<td>%</td>
</tr>
<tr>
<td>CIDCO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>For Public</td>
<td>42,444</td>
<td>45</td>
</tr>
<tr>
<td>For BUDP</td>
<td>7,108</td>
<td>49</td>
</tr>
<tr>
<td>TOTAL CIDCO</td>
<td>49,552</td>
<td>46</td>
</tr>
<tr>
<td>Pvt. Sector</td>
<td>19,476</td>
<td>19</td>
</tr>
<tr>
<td>Overall</td>
<td>69,028</td>
<td>33</td>
</tr>
</tbody>
</table>

Source: Socio Economic survey 2005 by Kirloskar consultant, Pune.

The above division of households into various social classes of LIG, MIG-1, MIG-2 and HIG is dependent of the size of the household currently occupied (As per HUDCO norms) and not as per income of the household.6

3.2.9 Demography:

The knowledge of basic demographic trend is very essential to sort out problem and exact needs of the area to be planned. It provides the ideas regarding habitation of the people and the basic requirements and facilities which authority should took over while preparing the development plan.
Growth of Population:
As per census 2001 the population of Navi Mumbai is 1103296. Table no. 3.4 a shows the population of Non-NMMC area

<table>
<thead>
<tr>
<th>NODES</th>
<th>CENSUS 2001</th>
<th>CENSUS 1991</th>
</tr>
</thead>
<tbody>
<tr>
<td>KALAMBOLI</td>
<td>38,611</td>
<td>16,382</td>
</tr>
<tr>
<td>NEW PANVEL</td>
<td>81,855</td>
<td>42,133</td>
</tr>
<tr>
<td>KHARGHAR</td>
<td>5,993</td>
<td>2,890</td>
</tr>
<tr>
<td>KALUNDRE</td>
<td>7,581</td>
<td>6,279</td>
</tr>
<tr>
<td>TALOJA(PANCHNAD)</td>
<td>10,839</td>
<td>7,462</td>
</tr>
<tr>
<td>KEGAON</td>
<td>7,923</td>
<td>6,403</td>
</tr>
<tr>
<td>TOTAL</td>
<td>152,802</td>
<td>81,549</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TOTAL OF THANE AND RAIGADH</th>
<th>856,804</th>
<th>4,68,755</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>RAIGADH</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>RURAL</td>
<td>*161,914</td>
<td>1,12,512</td>
</tr>
<tr>
<td>MUNICIPAL COUNCILS</td>
<td>*84,578</td>
<td>59,908</td>
</tr>
<tr>
<td>GRAND TOTAL</td>
<td>1103,296</td>
<td>6,41,175</td>
</tr>
</tbody>
</table>

Panvel and Uran municipal councils as per Navi Mumbai development plan.

Source: Census Report.

Table no. 3.4 b shows the population under NMMC area
Table 3.4 b
NODE WISE POPULATION UNDER NMMC AREA

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>AIROLI</td>
<td>76,895</td>
<td>83,756</td>
</tr>
<tr>
<td>GHANSOLI</td>
<td>51,644</td>
<td>23,691</td>
</tr>
<tr>
<td>KOPARKHAIRANE</td>
<td>121,750</td>
<td>49,863</td>
</tr>
<tr>
<td>VASHI</td>
<td>111,617</td>
<td>74,564</td>
</tr>
<tr>
<td>TURBHE</td>
<td>85,140</td>
<td>40,700</td>
</tr>
<tr>
<td>NERUL</td>
<td>116,857</td>
<td>52,767</td>
</tr>
<tr>
<td>CBD BELAPUR</td>
<td>73,073</td>
<td>38,343</td>
</tr>
<tr>
<td>OTHER AREA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DIGHA</td>
<td>54,296</td>
<td>13,295</td>
</tr>
<tr>
<td>DAHISAR</td>
<td>12,730</td>
<td>10,227</td>
</tr>
<tr>
<td>TOTAL</td>
<td><strong>7,04,002</strong></td>
<td><strong>3,87,206</strong></td>
</tr>
</tbody>
</table>

Source: Census Report.
### Table 3.5
**Estimated Population of the Navi Mumbai up to 2005**

<table>
<thead>
<tr>
<th>Sr.No</th>
<th>Census Group</th>
<th>As per 2001 census</th>
<th>Estimate 2005</th>
<th>Annual Growth Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Navi Mumbai Municipal Corporation</td>
<td>704,002</td>
<td>934,396</td>
<td>+8.2%</td>
</tr>
<tr>
<td>2.</td>
<td>Non-NMMC area in planned nodes</td>
<td>152,802</td>
<td>206,206</td>
<td>+8.7%</td>
</tr>
<tr>
<td>3.</td>
<td>Villages</td>
<td>161,914</td>
<td>190,351</td>
<td>+4.4%</td>
</tr>
<tr>
<td>4.</td>
<td>Municipal Councils</td>
<td>84,578</td>
<td>98,510</td>
<td>+4.1%</td>
</tr>
<tr>
<td>5.</td>
<td>Total Navi Mumbai</td>
<td>1,103,296</td>
<td>1,429,463</td>
<td>+7.4%</td>
</tr>
</tbody>
</table>


The population figures are estimated based on the growth rate. Municipal Council area belonging to only Navi Mumbai is considered.

The decadal growth rate of the population in Navi Mumbai is 74%. The comparison of growth rate with other places is as under:

<table>
<thead>
<tr>
<th>Category</th>
<th>Decadal Growth Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Navi Mumbai</td>
<td>74%</td>
</tr>
<tr>
<td>2) Greater Mumbai</td>
<td>18.4%</td>
</tr>
<tr>
<td>3) Maharashtra</td>
<td>29%</td>
</tr>
<tr>
<td>4) India</td>
<td>27%</td>
</tr>
</tbody>
</table>
Migration of the population into Navi Mumbai

One of the aims of Navi Mumbai development is to reduce the pressure on Mumbai city, 48% of households have shifted from Greater Mumbai to Navi Mumbai which is shown in table 3.6

Table 3.6
PREVIOUS PLACE OF RESIDENCE IN DECREASING ORDER OF IMPORTANCE

<table>
<thead>
<tr>
<th>Sr.No</th>
<th>Previous Residence</th>
<th>% of the Households</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Main Mumbai</td>
<td>48.2</td>
<td>48</td>
</tr>
<tr>
<td>2</td>
<td>Within navi Mumbai</td>
<td>30.2</td>
<td>78</td>
</tr>
<tr>
<td>3</td>
<td>Other villages in Navi Mumbai</td>
<td>9.4</td>
<td>88</td>
</tr>
<tr>
<td>4</td>
<td>Other Districts of Maharashtra</td>
<td>7.4</td>
<td>95</td>
</tr>
<tr>
<td>5</td>
<td>Outside Maharashtra</td>
<td>4.3</td>
<td>100</td>
</tr>
<tr>
<td>total</td>
<td></td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>


Religion wise distribution of population:

Navi Mumbai population consists of 90% of Hindus, 4% Muslims, 3% Christians, 2% Neo Buddhist and 1% of other minorities such as Sikhs, Jains and others.
Caste Wise distribution of population:

Navi Mumbai has 70% of total belonging to general caste or non backward classes. 17% other backward classes. 7% scheduled caste and 2% scheduled Tribe, 2% Neo Buddhist and 2% others.

Mother Tongue wise distribution of population:

Marathi is the mother tongue for 62% of households while 13% are Hindi speaking 9% are from south Indian languages, 7% have North Indian languages, 4% are Gujarathis, 2% have Eastern Indian languages, and 1% of English speaking.

Population Density:

Population density of Navi Mumbai and the main Mumbai is as follows:

I) Navi Mumbai 4167/sq.km.
II) Greater Mumbai 26722/sq.km.
III) Eastern suburbs 20410/sq.km.
IV) Western suburbs 24605/sq.km.
V) Mumbai island 49163/sq.km.

Age wise Break Up of the population:

83% of the population belongs to 0 - 45 years of age, 14% belongs to 45-59 years of age and 3% are senior citizen (60+).
The median age for the whole population is 28.55 years with modal class of 25 to 44 age group.
Economic Profile of Study Area

It covers work participation, occupation, place of work, location of work place and pattern commercial development industrial development special Economic zone etc. 

Work participation:

The working population in Navi Mumbai is 32%. Amongst the working population, 89.2% are males and 10.8% are females with an average age of 38 and 33 respectively.

Table 3.7
WORKING POPULATION OF NAVI MUMBAI

<table>
<thead>
<tr>
<th>Sr.no</th>
<th>Age Group</th>
<th>% of Total Male Population</th>
<th>% of Total Female Population</th>
<th>% of Total Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10-15 years</td>
<td>0.05</td>
<td>0.07</td>
<td>0.1</td>
</tr>
<tr>
<td>2</td>
<td>16-21 years</td>
<td>1.8</td>
<td>5.5</td>
<td>2.2</td>
</tr>
<tr>
<td>3</td>
<td>22-24 years</td>
<td>5.2</td>
<td>13.9</td>
<td>6.2</td>
</tr>
<tr>
<td>4</td>
<td>25-44 years</td>
<td>65.1</td>
<td>65.0</td>
<td>65.1</td>
</tr>
<tr>
<td>5</td>
<td>45-59 years</td>
<td>26.5</td>
<td>14.9</td>
<td>25.3</td>
</tr>
<tr>
<td>6</td>
<td>60 and above years</td>
<td>1.3</td>
<td>0.6</td>
<td>1.2</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>Sex wise Break Up of Navi Mumbai</td>
<td>89.2%</td>
<td>10.8%</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>Maharashtra % of workers</td>
<td>65.2%</td>
<td>34.8%</td>
<td>100</td>
</tr>
</tbody>
</table>

Occupation

Nearly 40% of the people are professionals, 18% are in business or industry owners, 21% of work force is skilled workers, 9% unskilled workers and 12% work forces are clerks and typists.

Place of Work:

45% of the work force works in private offices, 10% in industries and workshops and another 10% in commercial units, 6% in bank/public sector 2% in construction, 2% in educational institutes and rest 2% work at other places.

Location of work place:

Nearly 36% of the working population goes to Mumbai for work, 1% in other BMR, 3% in Thane- Kalyan and 60% work force working in Navi Mumbai. Regarding students’ population, 4% goes to Greater Mumbai and 96% study in Navi Mumbai.

Monthly Income:

The average monthly income of Navi Mumbai is 12691 Vashi has the highest monthly income of Rs.15709.

3.2.10. The land use pattern:

The movement of people and goods in a city, referred to as traffic flow, is the joint consequence of land activity (demand) and capability of transportation system to handle this traffic flow (supply). Naturally there is a direct interaction between the
type and intensity of land use and the supply of transportation facilities provided. One of the primary objectives of planning any land use and transportation system is to ensure that there is an efficient balance between land use activity and transportation capability.

Navi Mumbai is naturally a departure as planners started with virtually a clean slate. There is no doubt that the planning of a new city is an opportunity for useful creativity.

However, it must be borne in mind that there is a chance for error in its translation into a land use plan. "Error in these options can have disastrous results reaching far into the future" (CIDCO 1973). In Navi Mumbai, the land itself was the major resource for financing development. This is a departure from the basic concept of land as being governed by the land Revenue Code, with agriculture being the predominant use.

The area designated for the Navi Mumbai project was 343.7 sq.km located on the main land across the Thane Creek from Mumbai. The original area included privately owned land in 95 villages (188.2 sq.km) while the rest was forest or Government land.

<table>
<thead>
<tr>
<th>Land use</th>
<th>Area (sq.km)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gaothans</td>
<td>2.91</td>
<td>0.80</td>
</tr>
<tr>
<td>Industrial areas</td>
<td>28.70</td>
<td>8.50</td>
</tr>
<tr>
<td>Low-lying areas</td>
<td>66.94</td>
<td>19.20</td>
</tr>
</tbody>
</table>

Contd…
<table>
<thead>
<tr>
<th>Land Use</th>
<th>Area (sq.km)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Not Available for Urban Development</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) Low-lying areas</td>
<td>34.20</td>
<td>9.94</td>
</tr>
<tr>
<td>(b) MIDC industrial areas</td>
<td>28.10</td>
<td>8.18</td>
</tr>
<tr>
<td>(c) Defence area</td>
<td>4.56</td>
<td>1.33</td>
</tr>
<tr>
<td>(d) Port</td>
<td>12.00</td>
<td>3.49</td>
</tr>
<tr>
<td>Sub Total</td>
<td>78.86</td>
<td>22.94</td>
</tr>
<tr>
<td>2. Special Uses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) Regional parks</td>
<td>72.25</td>
<td>21.02</td>
</tr>
<tr>
<td>(b) Sewage farming</td>
<td>9.00</td>
<td>2.62</td>
</tr>
</tbody>
</table>

Source: CIDCO (1973), Draft Development Plan of Navi Mumbai
3. Proposed Land Use

   (a) Residential  60.76  17.67
   (b) Commercial    13.85   4.03
   (c) Service industry and warehousing  11.06   3.22
   (d) Public and semi-public institutions  35.75  10.40
   (e) Transportation  36.05  10.50
   (f) Parks and playgrounds    17.12   4.98

   Sub Total              174.59  50.80

   Total                   343.70  100.00

Table 3.10

Land Use Allocation as per Development Plan Sanctioned in 1979

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Area (sq.km)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>101.15</td>
<td>29.33</td>
</tr>
<tr>
<td>Commercial</td>
<td>6.51</td>
<td>1.88</td>
</tr>
<tr>
<td>Industrial</td>
<td>43.21</td>
<td>12.53</td>
</tr>
<tr>
<td>Port area</td>
<td>12.00</td>
<td>3.48</td>
</tr>
<tr>
<td>Wholesale markets and warehousing</td>
<td>6.08</td>
<td>1.73</td>
</tr>
<tr>
<td>Regional parks (including woodland corridors)</td>
<td>90.26</td>
<td>26.17</td>
</tr>
</tbody>
</table>

Contd...
<table>
<thead>
<tr>
<th>Land Use</th>
<th>Area (sq km)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>132.68</td>
<td>38.64</td>
</tr>
<tr>
<td>Commercial</td>
<td>5.75</td>
<td>1.67</td>
</tr>
<tr>
<td>Industrial</td>
<td>43.14</td>
<td>12.55</td>
</tr>
<tr>
<td>Port area</td>
<td>22.70</td>
<td>6.60</td>
</tr>
<tr>
<td>Wholesale markets and warehousing</td>
<td>4.60</td>
<td>1.33</td>
</tr>
<tr>
<td>Regional parks (including woodland corridors)</td>
<td>66.54</td>
<td>19.35</td>
</tr>
<tr>
<td>Institutional (including university)</td>
<td>1.09</td>
<td>0.31</td>
</tr>
<tr>
<td>Fishing and allied</td>
<td>3.44</td>
<td>1.00</td>
</tr>
<tr>
<td>Transportation</td>
<td>29.73</td>
<td>8.65</td>
</tr>
<tr>
<td>No development zone (including defence lands)</td>
<td>34.03</td>
<td>9.90</td>
</tr>
<tr>
<td>Total</td>
<td>343.70</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Source: CIDCO (1989), Statement showing the Comparative Land Use Pattern in New Mumbai, mimeo.

Table 3.11
Modified Land Use Pattern, 1992

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Area (sq km)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>132.68</td>
<td>38.64</td>
</tr>
<tr>
<td>Commercial</td>
<td>5.75</td>
<td>1.67</td>
</tr>
<tr>
<td>Institutional (including university)</td>
<td>0.76</td>
<td>0.22</td>
</tr>
<tr>
<td>Fishing and allied</td>
<td>6.14</td>
<td>1.78</td>
</tr>
<tr>
<td>Transportation</td>
<td>30.86</td>
<td>8.94</td>
</tr>
<tr>
<td>No development zone (including defence lands)</td>
<td>46.73</td>
<td>13.91</td>
</tr>
<tr>
<td>Total</td>
<td>343.70</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Source: CIDCO, Statement showing the Comparative Land Use Pattern in New Mumbai, mimeo, updated to 1992.
The land which was privately owned was notified for acquisition in February 1970 and August 1973. The initial land use characteristics indicate that the area was primarily an agricultural region.

The significant proportion of the area was not available for urban development either since it was low-lying or was occupied by industry, defence, or the Port (Table 3.9). Out of the total area designated for the project, only 50 per cent was available for planning urban development. The allocation of land was such that the residential component was given a large share while public utilities and institutions also occupied an important place.

The land use allocation originally envisaged was modified when the development plan for Navi Mumbai was prepared by CIDCO and submitted to the State Government in October 1975. This was sanctioned in August 1979.

A comparison of allocation of land for different uses was proposed in the development plan (Table 3.10). With that originally envisaged (Table 3.9) shows a substantial increase in area for residential use, while there was a steep decrease in area meant for institutional purposes. Areas for Fishing and Transportation also decreased slightly. In the subsequent years, there was some minor modification in development plan. While some of the modifications did not affect land use in the case of others, fairly significant changes were affected. As a consequence of these modifications there was an increase in land for residential uses as well as for the port while there was a substantial reduction in areas set apart for regional parks and the no development zone (Table 3.11)

The general pattern of land use envisaged for the area is represented by figure 3.1. Around Vaghivali island was to be the central area with a dominance of commercial and institutional land use. Industrial land use was in the already existing, Thane-Belapur and Taloja estates as well as in Donagiri. Port based activities were naturally localized near Nhava Sheva. Residential land use, which occupies a high proportion of the land, was along the four transport corridors. Whole sale market and warehousing were concentrated in eastern Vashi and
Kalamboli. Extensive green belts were to be associated with the Parsik hills as well as the hilly area in the south. 

*Figure 3.1
Pattern of Land Use*
3.2.11 Commercial Development:

Navi Mumbai is also developed very well commercially due to industrial and residential developments. Commercial development has also attained pace. Shops, commercial establishments, eating houses, hotels and commercial institutions are spread all over the area and serve day-to-day needs of the population.

The Mumbai Agricultural Produce market complex has been developed, and is being enlarged by CIDCO with necessary infrastructural facilities including the construction and provision of shop-cum godowns and office blocks to enable the trade and market functionaries to carry on their trades in the new market complex.

The wholesale markets which have since come to be shifted from Greater Mumbai to Navi Mumbai are as under.

(I) Onion and Potato wholesale markets to Phase I market I (about 240 shops-cum-godowns) in 1980.

(II) Iron and Steel markets as also major steel producers stock yard, from Carnac Bunder and Bhandup Vidyavihar to Kalamboli in Navi Mumbai, under the Mumbai metropolitan specified commodities. Market (Regulations of Location ) Act 1983.

(III) Wholesale Processed Agricultural Produce Markets in sugar, Gur, condiments, spices, oils, coconut, dryfruits, flour, etc to phase II market I (660 shops-cum godowns) in February 1991.

(IV) Wholesale Grain markets in Grains Rice, Oilseeds to Phase II, Market II (420 shops-cum Godowns) in May 1993.
(V) Wholesale fruits and vegetables market to Phase I market II 1029 and 936 shop-cum godowns respectively in February and March 1996 respectively.

In addition to whole sale markets different departmental stores or malls are already functioning in different node of Navi Mumbai. All these establishments provide fairly good number of employment.

3.2.12 Industrial Development:

In 1972 MIDC had undertaken development of 33 industrial areas in the state; of these, 10 were located in the Mumbai Metropolitan Region including two in Navi Mumbai i.e. Trans-Thane Industrial Belt and Taloja located in the northern part of Navi Mumbai at a distance of 4 km south west of Thane railway station, and covering an area of 2546 hectares, the belt stretches for over 16 km along the Thane-Belapur road. It was specially constructed by MIDC and come to be known as the Thane Belapur Industrial Belt (TBIB).

The Trans-Thane Industrial Belt, developed by MIDC in the mid-sixties witnessed a sharp growth of industries in terms of number of units, capital deployed, employment and turnover. Most of the industrial units continue to be high capital intensive industries. The basic petrochemical units like NOCIL and Herdillia Chemicals were set up in the late 1960. This was followed by setting up of a large number of chemical industries. The TBIB had 72 industrial units in 1974. This increased to 533 in 1984 and 1931 in 1990. Now, there are about 3000 industrial units with an employment of over a lakh and an annual turnover of more than Rs. 7000 crores. It is the largest industrial complex in Asia. In addition, the Industrial belt at Taloja, Jawahar, Panvel, Patalganga and the Jawaharlal Nehru Port Trust at the southern tip of Mumbai adds to the strength of urban economy of Navi Mumbai. For the systematic development of different type of industries, the
Industrial Area is divided in different zones such as Engineering Zone, Chemical Zone, Textile Zone, Food Processing Zone, Electronic Zone Park, Infotech, APMC, Technology Centre, MAFCO, Millennium Park, IT Hardware Park, Airoli Knowledge Park, ITC Park(CBD Belapur), International Infotech Park(IIP) Vashi.

3.2.13 Special Economic Zone:

Special Economic Zone (SEZ) is a special duty free enclave designed to promote foreign investments in a comprehensive range of economic activities from manufacturing at one end to trading and financial services on the other in an unfettered business environment.

One of the largest SEZs in India is being set-up in Navi Mumbai, Maharashtra. The Navi Mumbai SEZ (NMSEZ) is spread over an area of approximately 4,377 hectares (around 44 square kilometers), and comprises of four zones, Dronagiri, Kalamboli, Ulwe and the regional park zone (RPZ) of 1,850 ha. In addition, 300 hectares of land adjacent to the port is proposed to be contributed by JNPT. CIDCO has already acquired the land in the zones of Dronagiri, Kalamboli, and Ulwe. Land in the RPZ area has not been acquired. NMSEZ has inherent locational advantages on account of its proximity to Mumbai-India's financial and commercial capital. On account of demand generated due to the SEZ Project as well as fiscal incentives offered by the State Government, the development in various areas of Navi Mumbai would increase.

3.2.14 NEW MEGA PROJECTS OF CIDCO IN NAVI MUMBAI

Information Technology Park:

Navi Mumbai is strategically located on the Mumbai Pune ‘Knowledge Corridor’. CIDCO has already set up an High Tech IT park at Vashi. CIDCO has
also planned 2nd IT park at CBD Belapur. MIDC has also developed Millennium Park at Mahape. About 100,000 computer professionals are expected to be stationed in Navi Mumbai in a period of next 3-5 years from now. CIDCO is also planning to lay optic fiber cable in entire Navi Mumbai.

**Golf course:**

As golfing requires large track of open land and Mumbai offering no scope for providing new golfing sites, CIDCO has selected two alternative sites for setting up a Golf Course of international class at Nerul and Kharghar, development of which is offered for the private sector’s participation. A renowned architect will design the international class 18 hole and 27 hole course respectively at Nerul and Kharghar, with the aim of making it a venue for prestigious competitive events on the national and international golfing calendar.

**Amusement Park:**

Navi Mumbai is expected to have a population of two million by 2005. The amusement park and other holiday resorts facilities of Dapoli will cater to their needs as well as those residing in Mumbai and the vast catchment area on the mainland.

**International Convention Center:**

A picturesque site is selected at Nerul for the proposed international convention center. It will be the first of its kind with highly sophisticated, ultra modern facilities, luxury hotels and entertainments venues. It is aimed at making Navi Mumbai a preferred international and national destination in Asia.
City center:

CIDCO intends to develop city center along Palm Beach Marg connecting Vashi Railway Station, IT Parks and Belapur Railway Station. City center comprises of Palm Marg that is a state of Art expressway along the coast. All the plots along the Palm Beach Marg shall be used for residential and commercial purpose with urban guidelines to bring unifying character to the stretch. The commercial city center would consist of the Vashi railway station, IT parks and the proposed commercial center at Sanpada. The administrative city center would be located at sector 50, 52, Nerul and sector 15A of CBD Belapur. The recreational center would mainly consist of golf course and recreational areas and open spaces around holding pond of Nerul.

International sports complex, Ghansoli:

CIDCO has proposed to develop a sports complex with the state of art technology and amenities that would enable the flowering of the younger generation’s dreams on the sporting front. The location of one such complex has been identified in the Ghansoli node. The area of the proposed site is approximately 27 hectares. The proposed site is well connected to most of the areas of Navi Mumbai.

Social Development and Entertainment.

Navi Mumbai is also known as an Education hub. Quite a number of educational institutes, good level schools and colleges, technical institutes etc are located in Navi Mumbai. This development can be attributed to cool and calm atmosphere, large open spaces, low density of population and good infrastructure.
Also, there are gardens and green areas, for recreation and entrainment. However, there is much scope in improving entertainment and recreation facilities. The town has beautiful hills and long sea coast which provides good scope for development of recreational facilities of higher standards. People have been going to different malls for shopping as well as outgoing. A six-screen multiplex is being planned at Raghuleela shopping mall.

3.2.15. Infrastructure and Connectivity

Navi Mumbai is well connected to Mumbai both by wide roads and mass rapid rail systems. Travel time from Mumbai’s central business district at south Mumbai varies from 45 minutes (water transport) to 60 minutes (road/rail transport). India’s busiest domestic and international airport Chatrapati Shivaji International Airport – is just 90 minute drive from Navi Mumbai. It is connected to Mumbai through Sion Panvel Highway connecting Mankhurd of Mumbai and Vashi of Navi Mumbai. On a still northern front, Mulund in Mumbai is connected with Airoli of Navi Mumbai through road (extended Goregaon-Mulund Link road and Eastern Express Highway). Soon, the southern part of Navi Mumbai shall be connected with Southern part of Mumbai through Trans Harbour Sea Link (waterways) between Nhava Sheva in Navi Mumbai and Sewri in Mumbai. This will be a unique project and shall affect the development of both the towns greatly. Also, the town is connected with Chhatrapati Shivaji Terminus in Mumbai through Harbour line connecting CST with Panvel. The Palm Beach Marg running parallel to the coast, between Vashi and Belapur is a beautiful road giving picturesque view of the surroundings.

The town is connected to Thane and other parts through Thane-Belapur Highway as well as Thane Belapur Rail link. The town is also well connected to other parts of the state through railway and road networks. National Highway
(NH-4) passes through Dahisar (Navi Mumbai) and Kharghar, connecting the town to Pune and other parts of Maharashtra. From Panvel, the well-known Mumbai-Pune Express way leads us to Pune.

Jawaharlal Nehru Port Trust (JNPT), a landmark project of Maharashtra Maritime Board, being developed through private sector participation in various aspects, is located south to Navi Mumbai, approx. 10 km form Belapur. An International Airport shall shortly come up in Nhava-Sheva, between Belapur and JNPT. These locations are connected with Navi Mumbai through JNPT road.

CIDCO has developed excellent road connectivity in Navi Mumbai through a number of fly-overs criss-crossing the town thus reducing congestion on the road providing smooth transport.

The town has adequate power and water facilities. The total installed power generation capacity in Navi Mumbai is around 960 MVA with a planned capacity of over 1500 MVA by 2010. There is adequate water supply for the region as well. CIDCO has developed its own dams in the area-with an existing capacity of 150 MLD and a planned capacity of around 465 MLD.

In terms of living standards, Navi Mumbai scores over Mumbai on account of the low level pollution, de congested residential areas and high proportion of open spaces and green belts. In comparison to Mumbai, the town has significantly lower living costs, owing mainly to the optimal land infrastructure costs.\(^\text{10}\)

3.2.16. Transport:

The development plan of Navi Mumbai provides for an integrated transporter system consisting of roads, railway, waterways and airways. All the
nodes are to be well connected by a mass transportation system in the form of the commuter railway with is economical and cost-effective city level high capacity expressways with controlled access are planned and are being constructed at the periphery of the development nodes, to facilitate uninterrupted flow of inter city and intracity vehicular traffic. Considering the overall requirement of Navi Mumbai residents as well as industrial and business people, feeder road system has also been provided for safe and economical internal movement of nodal traffic. Other complementary transport system namely, water and air transport are also contemplated in the Navi Mumbai transport development plan to provide faster modes of intercity transport. Hence various modes of transport such as buses including electric trolley buses, trains hovercrafts catamarans/ hydrofoils and aircrafts are considered to meet the travel demand of Navi Mumbai

The principal modes of transport in Navi Mumbai are as follows:

1. Railway
2. NMMT- Buses
3. Walk
4. Motor Cycle /Scooter-Rider
5. BEST-Buses
6. Auto rickshaw
7. Car -self Driven
8. MSR8TC-Buses
9. Office – Buses
10. School - Buses
11. Bicycle
12. Taxi
13. Other

The principal modes of transport in the decreasing order of importance.
Railway System:

The railway system of Navi Mumbai consists of commuter rail network, railway station cum commercial complexes, intercity railway terminal and railway lines for goods traffic.

Figure 3.2
Rail Corridors
Commuter Railway System:

The commuter railway system proposed for Navi Mumbai consists of six railway corridors covering west, east, south and central areas of the city (Fig3.2) direct access from residential areas to job centers by walk, convenient interchange facility from one corridor to another, easy to follow route as well as comfortable and pleasant journey are the main features of commuter railway system. It is planned in such a way that about 80 per cent of the people living in Navi Mumbai are within walking distance of the nearest railway station. Each railway corridor is designated by different colour code for convenience of commuters.

The total length of six corridors in Navi Mumbai is about 157 km. The following Table 3.12 shows number of corridor and length in km.

<table>
<thead>
<tr>
<th>Corridor no</th>
<th>From &amp; To</th>
<th>Length (in km)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mankhurd-Belapur-Panvel</td>
<td>29</td>
</tr>
<tr>
<td>2</td>
<td>Thane-Vashi-Juinagar-Uran</td>
<td>50</td>
</tr>
<tr>
<td>3</td>
<td>Ring Railway around CBD</td>
<td>15</td>
</tr>
<tr>
<td>4</td>
<td>Mansarover Taloja</td>
<td>11</td>
</tr>
<tr>
<td>5</td>
<td>Thane-Juinagar-Nerul</td>
<td>20</td>
</tr>
<tr>
<td>6</td>
<td>Panvel-Ulwe-Uran</td>
<td>32</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>157</td>
</tr>
</tbody>
</table>

Source: CIDCO, Development Plan.
Road System:

The proposed road system of Navi Mumbai consists of expressways, arterial roads and local roads (fig3.3). City expressways are planned at the periphery of the development while arterial roads are planned to connect expressways at suitable intervals and to give access to the local road system of the various nodes. The total length of expressway in Navi Mumbai will be about 200km. Local road system is basically planned to meet the transport requirement in each node for various land uses. To avoid traffic congestion / jams at important junctions, flyover and grade-separated intersections are being planned and constructed.

Bus Transport System:

The bus transport in Navi Mumbai and to Mumbai, Thane, Kalyan, Panvel and Uran, is operated by MSRTC, NMMT, KDMT, and BEST. These four undertakings have together put in about 350 buses catering over 3.5 lakh intercity and intra city passengers per day.

Well planned bus terminals have been provided in various nodes of Navi Mumbai for the operation of intra city and intercity buses. Bus stands have also been provided at all railway stations for the commuters. Bus shelters have been constructed on major bus routes to provide safety and convenience to the bus commuters.
Auto-Taxi Services:

Well planned taxi/auto stands with parking and other required facilities have been provided in various nodes and at the railway stations in Navi Mumbai.

Water Transport:

The presence of a vast water body around Mumbai and Navi Mumbai provides an opportunity to use water Transport system between Mumbai and Navi Mumbai as well as surroundings areas.

The development plan of Navi Mumbai envisages ferry service from south Mumbai to various locations in Navi Mumbai. As approved by the state Govt. CIDCO has initiated inland water transport service between Mumbai and Navi Mumbai.

Air Transport:

Navi Mumbai airport has planned close to its Central Business District (CBD) near Kopar, to meet domestic air travel demand of the city residents, industrial and business group.

The proposed airport will have a runway for wide body aircraft. The plan provides for facilities such as terminal, buildings, taxiways, parking apron, aircraft repair, hanger, shopping plaza, hotels and restaurants, parking, bus terminal etc. The terminal building is well integrated with city roads and commuter rail system. The terminal building and other allied facilities are planned on a modular basis to accommodate growing demands of public and private airlines.
This airport is so planned that it can be further developed as an international airport. The airport would make the CBD of Navi Mumbai a better place to locate offices and business establishments in Navi Mumbai and it will act as a counter magnet to Mumbai. Navi Mumbai airport is also expected to relieve congestion at Mumbai airport and both can function complementary to each other.\(^{(12)}\)

### 3.3.[B] PROFILE OF NAVI MUMBAI MUNICIPAL CORPORATION [NMMC]

We have seen profile of Navi Mumbai; now let us study the profile of NMMC because it is related to our study. Navi Mumbai Municipal Corporation (NMMC) is the local authority. For catering to the requirements of 29 villages in CIDCO project and 15 villages notified area, NMMC was formed vide Government order dated December 17, 1991. NMMC was established under the Mumbai Provincial Municipal Corporation (BPMC) Act 1949. NMMC came into existence on Jan 1, 1992. There are 8 administrative wards and 88 electoral wards. The jurisdiction of Navi Mumbai Municipal Corporation (NMMC) starts at Dighe in north and ends at Belapur in south.

The Navi Mumbai Municipal Corporation has an area of 162 sq km. The population residing within NMMC area has increased from 3.18 lakhs in 1991 to 7.04 lakhs in 2001. The overall increase in population during 1991-2001 was 82 percent.

The NMMC for the purpose of administration has been divided into nodes. There are 8 nodes in the city. Each of the nodes is divided into groups or blocks of one or more sector in each of the node. Each group is further sub divided into bits. The administration work is then controlled on a bit basis. Each bit has a supervisor who is required to ensure that all the facilities provided by the NMMC are in order.
The General body is headed by the Mayor. There are various Committees such as:

1) Standing Committee  
2) Health Committee  
3) Women's and Child welfare Committee  
4) Law Committee  
5) Social welfare and slums improvement Committee  
6) Water supply and Sewerage Committee  
7) Sports and Cultural Events Committee  
8) Transport Committee  
9) Education committee

Most of the financial powers are vested with standing committee.

The Municipal Commissioner is appointed by the State Government and is assisted by the Deputy Municipal Commissioner and the various heads of the department such as.

1) Administration, public relation and stores Department  
2) Town planning Department  
3) Garden Department  
4) Cess Department  
5) Property, Tax Department  
6) Education Department  
7) Engineering Department  
8) Health Department  
9) Transport Department  
10) Public Health Engineering department  
11) Fire-fighting Department
3.3.1. Responsibility of Municipal Governance:

The Functional devolution, planning for economic development and social justice have been identified as the major responsibilities of the Municipal Governance in the 74th amendment under its article 248W. It also refers to the newly inserted schedule to the constitution which lists the following functions.

1) Urban planning including town planning
2) Regulation of land use and construction of building
3) Planning for economic and social development
4) Roads and bridges
5) Water supply for domestic, industrial and commercial purposes
6) Public health, sanitation, conservancy and solid waste management
7) Fire services
8) Urban forestry, protection of the environment and promotion of ecological aspects
9) Safeguarding the interests of weaker sections of society, including the handicapped and mentally retarded.
10) Slum improvement and up gradation
11) Urban poverty, alleviation
12) Provision of urban amenities and facilities such as parks, gardens play grounds
13) Promotion of cultural, educational and athletics aspects
14) Burials and burials grounds, crematoriums, cremation grounds and electric crematoriums
15) Cattle ponds, prevention of animals
16) Vital statistics including registration of births and deaths
17) Public amenities including street lighting, parking lots, bus stops and public conveniences

18) Regulation of slaughter houses and tanneries

However, the provisions of article 243w are not mandatory, but it is left to the state government to decide as to which functions it may devolute on a municipality. This is because, unlike the functioned jurisdiction of states, which are prescribed in the constitution, the functions of local bodies are derived from the responsibilities, which are delegated by the state through legislation or executive decisions.

3.3.2. General Information of Navi Mumbai Municipal Corporation. (NMMC)

The general information of NMMC is as follows

1) Area under the jurisdiction of NMMC : 162 sq.kms
2) Total population : 750000
3) No. of Households : 163738
4) Total No. of administrative wards : 8
5) Total No. of Corporators : 88
6) Literacy Percentage
   a) Male : 98%
   b) Female : 96%
7) Total No. of Corporation employees
   a) Staff : 1703
   b) NMMT employees : 1346

Contd…
8) Annual Budget
   Annual Revenue (2007-2008) : 72706.67(lacs)
9) No. of small scale industries : 1800
10) Number of slum pockets : 49
11) Number of slum Holders : 41956
12) Population in slum area : 209755
13) No. of Municipal hospitals : 06
14) Municipal Dispensaries : 14
15) No. of Government hospitals : 2
16) No. of Private hospitals
   a) Registered : 42
   b) Unregistered : 27
   c) Private Dispensaries : 552
   d) Private Nursing homes : 37
17) No. of municipal Schools : 57
18) No. of private primary and secondary
    Schools : 230
19) No. of colleges (Jr. Sr. and other colleges) : 21
20) Public gardens : 95
21) Total tree plantation : 60971
22) Sewerage treatment plant capacity : 180.75 MLD
23) Water supply
   a) Morbe Dam : 50 MLD
   B) Hetavane Dam : 80 MLD
24) No. of hotels/eating places : 400
25) No. of Star hotels : 03
26) No. of Swimming pools : 04
27) No. of Cinema theatres : 05

Contd…
3.3.3. Sources of Income:

Following are the sources of income of NMMC

**The Property Tax:**

As Octroi is not charged in Navi Mumbai Municipal Corporation area, property Tax is only important source of income. Out of its total revenue, the corporation receives 36% income from the property tax. For the year 2005-2006, the total demand of property tax was Rs 173.04 crore, (including the arrears and present demand). Out of this Rs.106.01 crore has been collected up to March 2006.

According to Mumbai Provincial Municipal Corporation Act, 1949, section 127 and 129 property tax is charged on the property as per its taxable value. (Taxable value is determined on the basis of annual rent of the property). For the purpose of charging property tax, Navi Mumbai Corporation area has been divided into following sections.

(A) CIDCO Plots
(B) CIDCO Nodes
(C) 46 towns

Source: NMMC Records
The taxable value of any property is fixed on the basis of its approximate yearly rent. The Navi Mumbai Municipal Corporation has fixed rate of Rent per sq.mtr for various nodes by considering the location of property (on main road and on inside roads), quality of construction, the standard of living of residents, etc. Properties in Gaonthan area are rated low as compared to properties in different nodes developed by CIDCO. The taxation system is computerized and no official of any stage has right to reduce taxable value of the property.

Cess:

Octroi is the main source of Revenue of all local governing bodies in India. But because of its inherent defects, a big group of traders has been demanding complete elevation of the Octroi. That is why the government of Maharashtra decided to adopt the cess as substitute to octroi on the basis of accounts. Governments of Maharashtra selected Navi Mumbai Municipal Corporation on experimental basis for adopting the Cess system in its area. Navi Mumbai Municipal Corporation is the first corporation in Maharashtra, which has adopted cess system instead of octroi. The present system was started on experimental basis and after its evaluation the future course of action was to be determined. But the experiences over last ten years of cess collection show that this has been a very successful method. The goods entered in municipal area for consumption use or sales are liable for cess.

According to clause 152(F) of Mumbai Provincial Municipal Corporation Act,
1949, any eligible person for changing cess is not allowed to start his business without registration certificate. If any trader crosses certain limit of sales/purchase turnover during any financial year is liable for charging cess and registration.

**Other Sources of Income:**

The following are the other sources of income of NMMC.

- Fire Tax
- Water benefit Tax
- Sewerage Tax
- Sewerage benefit Tax
- Street cess
- Tree cess
- Municipal Education Tax
- Town planning
- License Fees
- Encroachment Fees
- Pay and park
- Art and social welfare centre.

3.4. **PROFILE OF NAVI MUMBAI MUNICIPAL TRANSPORT (NMMT):**

Here, we study here profile of NMMT. For the convenience of public of Navi, Navi Mumbai Municipal Transport was started on 23rd Jan, 1996 with 25 buses. Now it has 226 buses catering services to 1,70,508 passengers per day on 30 routes initially there was only one Depot at Turbhe. Another depot at Aasudgaon has been functioning from 11-05-2005. There are 150 buses in Turbhe Depot, and out of these 101 buses are run on road where as there are 76 buses in Aasudgaon depot and total 49 buses are run on road. NMMT offers transport
service on over all 30 routes in area of Navi Mumbai, Greater Mumbai (Mulund) Thane, Dombivali, Badlapur, Kharghar, Kalyan, Kalamboli, Panvel and Uran.
There are following control units for the buses on these routes.

1) **Turbhe Depot:**
   Following 12 control unit are under Turbhe Depot.
   1) Turbhe Depot
   2) Vashi railway station
   3) Vashi sector 6
   4) Kopar khairne Bus Station
   5) Airoli bus station sector 3
   6) Diva nagar sector 10
   7) Thane Chendani Koliwada
   8) Mahape bus station
   9) Karave sector 46/48
   10)Uran pensioner park
   11)Dombivali bus station
   12)Mulund Gavhanpada

2) **Aasudgaon Depot:**
   Following a control unit are under Aasudgaon Bus Depot
   1) Aasudgaon Depot
   2) Belapur Railway station
   3) CBD bus station
   4) Kharghar (Tata Hospital)
   5) Kharghar (Jalvyu Vihar)
   6) Kharghar (Gharkul)
   7) Kalamboli bus station
8) New Panvel bus station
9) Panvel Railway station

In 2006-2007, the Navi Mumbai Municipal Transport undertaking owned 226 buses, operated 148 buses per day on road, on 30 routes. It carried 622.35 lacs passengers, had an average daily collection of Rs. 1123068, and the NMMT had total staff strength of 1343 persons. In future NMMT proposes to run the buses on various routes in Mumbai city.

At present NMMT has two depots and soon it proposes to start Rabale Depot which will facilitate Navi Mumbai residents NMMT’s whole system is computerized and it provides bus concession passes to students, free passes for freedom fighters and reporters monthly and daily passes for general public. These passes are available at Turbhe depot, Vashi, Belapur, Koparkhairne, Airoli and Mahape.

The officers and workers at all levels celebrate religious and national festivals such as Ganesh festival, Shiv Jayanti or Babasaheb Ambedkar Jayanti etc. by organizing health, eye check up camps, Road safety week blood donation camp. Anti addiction campaign and fuel saving scheme. As well as NMMT organizes various competitions to motivate the wards of the employee and the meritorious wards are felicitated. On the occasion of its Foundation Day i.e. 23rd January, the best employees are selected for awards and they are felicitated with a certificate of appreciation.

In this chapter researcher has seen profile of the study area which is divided into three parts i.e. profile of Navi Mumbai, profile of the Navi Mumbai Municipal Corporation and profile of the Navi Mumbai Municipal Transport. It will facilitate the further research study. (Details of NMMT Undertaking are given in Chapter Five)
Figure 3.4
New Bombay Development Plan
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