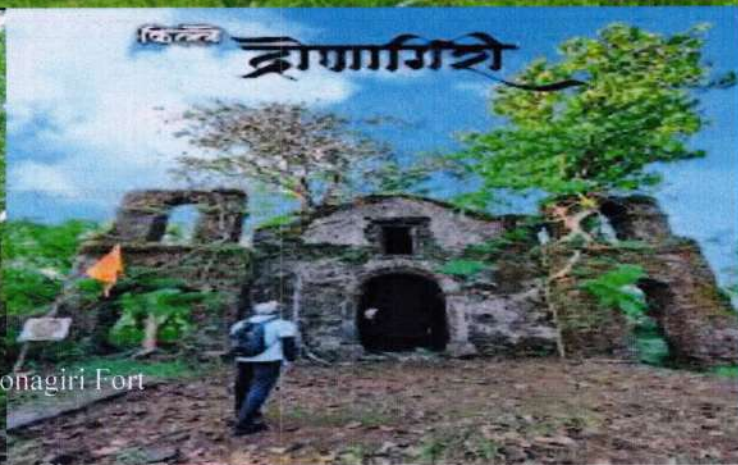




Mogliche Dam, Airoli



avlidev waterfall and bird watching area,
hansoli.



Dronagiri Fort

**REPORT ON DRAFT DEVELOPMENT PLAN (DDP) OF
DENOTIFIED LANDS OF NEW TOWN OF NAVI MUMBAI AS
SPECIAL PLANNING AUTHORITY (SPA)**

(AS PER GOM UDD NOTIFICATION NO. TPS-1217/UOR-1/C.R.-102/17/UD-12, DATED. 31.10.2017)
2024 - 2044

**CITY and INDUSTRIAL DEVELOPMENT CORPORATION OF
MAHARASHTRA LTD.**
(GOVERNMENT OF MAHARASHTRA UNDERTAKING)



PREAMBLE

CIDCO is an acronym of the City and Industrial Development Corporation of Maharashtra Limited (CIDCO) and is completely owned by the State Government and incorporated as a Limited Company on 17th March 1970. It is a public sector undertaking of the Government of Maharashtra. CIDCO was appointed as New Town Development Authority (NTDA) on 20th March 1971 under section 113 (3A) of MR & TP Act 1966. Under section 113A read with Section 125 of MR & TP Act 1966, the Government has powers to acquire land for the New Town, as and when required for the project and vest it with the NTDA.

CIDCO, during the last few decades, has developed Navi Mumbai having a total area of 344 sq. km. spread over the parts of Thane and Raigad districts of Maharashtra, which forms a part of the Northern Konkan Region. The area comprised 95 villages of Thane and Raigad Districts. CIDCO has developed 16 nodes (i.e., townships) of Navi Mumbai, which are divided into North and South parts. The 7 nodes in the North part are Airoli, Kopar Khairane, Ghansoli, Vashi, Sanpada, Nerul and CBD Belapur; in the Southern part, Kharghar, Taloja, Kamothe, Kalamboli, Karanjade, Pushpak, New Panvel, Ulwe and Dronagiri are the 9 nodes. Since Navi Mumbai falls within two districts, two municipal corporations have been established, namely the Navi Mumbai Municipal Corporation (NMMC) in the North (Thane Dist) and the Panvel Municipal Corporation (PCMC) in the South (Raigad Dist) and one Uran Municipal council.

CIDCO has acquired lands in the said area. In the process of development, some portions of Navi Mumbai were undevelopable because of hilly terrain and other natural features. In addition to that, no immediate development had been contemplated on these lands. Most of such lands had been not acquired by CIDCO and as per the sanctioned Navi Mumbai Development Plan (NMDP) said lands fall in the Regional Park Zone (RPZ).

Based on the VC & MD appointed Committee report submitted to GoM, regarding un-acquired undevelopable lands, the GoM UDD vide its Notification dated 31st October 2017, deleted some pockets of Navi Mumbai from the NTDA project area, whereby CIDCO ceases to function as NTDA. CIDCO is appointed as the Special Planning Authority (SPA) for some land parcel of Navi Mumbai project.

Draft Development Plan of Denotified Lands of New Town of Navi Mumbai as SPA

CIDCO being SPA of this area has declared its intention to prepare a Draft Development Plan for part of 16 Villages of CIDCO's jurisdiction. This intention is declared by CIDCO on date 5th August 2021 to prepare Draft development Plan proposal for the SPA Area. The notice of said intention is also published in Maharashtra Govt. Gazette on 21st October 2021. CIDCO has prepared the Existing Land use (ELU) Plan for the SPA area.



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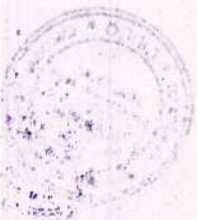
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LIST OF ABBREVIATIONS

CIDCO	– City and Industrial Development Corporation of Maharashtra Limited
DDP	– Draft Development Plan
DEM	– Digital Elevation Model
DFCC	– Dedicated Freight Corridor Corporation of India Ltd.
DP	– Development Plan
ELU	– Existing Land Use
IMD'S	– Indian Meteorology Department
JNPT	– Jawaharlal Nehru Port Trust
MIDC	– Maharashtra Industrial Development Corporation
MLD	– Minimal Liquid Discharge
MMR	– Mumbai Metropolitan Region
MMRDA	– Mumbai Metropolitan Region Development Authority
MR & TP ACT	– Maharashtra Regional and Town Planning Act 1966
MSRDC	– Maharashtra State Road Development Corporation Limited
NAINA	– Navi Mumbai Airport Influence Notified Area
NDZ	– No Development Zone
NH	– National Highway
NHSRCL	– National High Speed Rail Corporation Limited
NMMC	– Navi Mumbai Municipal Corporation
NTDA	– New Town Development Authority
PHC'S	– Public Health Centers
PLU	– Proposed Land Use
PPH	– Persons per Hector
RP	– Regional Plan
RPZ	– Regional Park Zone
SBM	– Swaccha Bharat Mission
SH	– State Highway
SPA	– Special Planning Authority
TBIA's	– Thane Belapur Industry Association's
TMC	– Thane Municipal Corporation



CHAPTER - I: GENERAL

1.1 Navi Mumbai Project:

In March 1966, the Gadgil Committee recommended regional planning legislation and planning standards. In January 1967, the Maharashtra Regional and Town Planning Act 1966 was passed. By that time, Mumbai had become congested due to overcrowding and the need for diverting the ever-growing population arose, which could harbor surplus population.

To avoid possible consequences, under the provision of Maharashtra Regional and Town Planning Act, 1966 a plan for Mumbai Metropolitan Region was prepared with the main objective of developing a new metro city in Trans-Thane creek and Trans harbour area that was coined as 'New Bombay'.

In 1970, City and Industrial Development Corporation (CIDCO), a state public sector undertaking, was established by Government of Maharashtra, with the purpose to plan, develop and maintain the city of Navi Mumbai under 'Companies Act' of 1956. The State Govt. had adopted the following objectives for the Navi Mumbai Project:

- i. To reduce the growth rate of population in Greater Mumbai by creating an attractive urban area on the land across the Mumbai Harbour which could absorb immigrants who would otherwise come to Mumbai, as well as to and attract some of Mumbai's present population.
- ii. To support State wise location policies which could eventually lead to an efficient and rational distribution of industries all over the State and encourage balanced development of urban centres in the hinterland.

CIDCO was appointed as New town Development Authority (NTDA) on 20th March 1971. CIDCO prepared Development Plan (DP) for Navi Mumbai covering 95 villages from Thane and Raigad District. The said DP was sanctioned by Govt. of Maharashtra in August 1979 which came into effect from 22nd October 1979. Navi Mumbai Project is one of the best New Town Project in India as well as in Asia and consist of 16 nodes. The Navi Mumbai DP was showing various Land Use Zones with planning proposals for Navi Mumbai Project.

CIDCO has acquired lands in the Navi Mumbai Project Area and developed in planned manner. Some portion of Navi Mumbai were undevelopable because of hilly terrain and environmentally sensitive natural features.



1.2 Background of Navi Mumbai SPA area:

Navi Mumbai Development Plan comprises of different zones out of which Regional Park zone is a zone in which most of the land is undeveloped as it is mainly hilly area. Navi Mumbai Development Plan (NMDP) envisaged about 6900 ha of land for a Regional Park Zone (RPZ). It constitutes about 20% of the Navi Mumbai project area, as against 50% of developable land under various nodes. Most of the lands in the Regional Park Zone are not acquired and belong to the Forest Department, Private Owners, and the Government.

Owing to the undulated hilly terrain, the general unproductive (agriculture) nature of this Zone, and private ownership of lands, no immediate development was contemplated. The general characteristics of this land is nonagricultural barren lands with vegetation cover. Hence the lands were not acquired in the past. However, of late, after the development and expansion of JNPT, it has been observed that unauthorized Container Yards are mushrooming up along certain stretches of NH – 348A bypass and Panvel – Uran State Highway (SH-54). Many of these developments are being taken place in un-acquired / privately owned lands.

It is, therefore, necessary to take up issues of land acquisition and also suitable remedial measures to regulate mushrooming unauthorized developments and impart balanced and organized development in this area. In the past Government of Maharashtra acquired the lands as notified and vested with CIDCO but, by Government Resolution on the date 12 February 2008, GoM has clarified that henceforth further required lands to be acquired by the CIDCO with their own funds hence, issue of the land acquisition came into limelight.

Also no immediate development was contemplated on these lands. Such lands were not majorly acquired by CIDCO and in Development Plan these are earmarked in Regional Park Zone (RPZ). In due course of time, City has developed and there was tremendous pressure on the authorities to acquire these lands.

I. Obligation for CIDCO being NTDA:

- a) Being a designated New Town, as envisaged under sections 113A and 117 of MR & TP Act 1966, it is mandatory to acquire all lands within New Town and vest with NTDA.
- b) As per section 117, if land within a designated area is not acquired within a period of 10 years from the date of Notification, the owner of the land can serve a purchase Notice to Govt./NTDA, and thereupon provisions of section 127 of MR & TP Act 1966 shall apply.
- c) As per section 127 of MR & TP Act 1966, on lapsing of 10 years, owners of private lands can serve purchase notice to NTDA. If Government/CIDCO fails to acquire or commence to acquire the land in the stipulated period, the designation shall be deemed to have lapsed.

- d) As per section 125 of the MR & TP Act 1966, the land designated for any New Town shall be deemed land needed for Public Purpose.
- e) Development on private un-acquired land cannot be allowed or take place in the Navi Mumbai Project area.

II. De-notification of Lands in Navi Mumbai New Town Project

Under the circumstances mentioned above, in the year 2004, a proposal was sent to GoM, seeking suitable directives for relaxing acquisition norms/ provisions (i.e. obligatory for the State Government or the Development Authority to acquire within 10 years the land in the notified New Town Area) as envisaged under section 113A and 117 of MR & TP Act 1966, wherein the GoM had informed vide letter dated 4.09.2004 about non-availability of provisions relax the condition of compulsory land acquisition for Public Purpose as specified in section 117 of the MR & TP Act to and had suggested to withdraw the lands from acquisition under Land Acquisition Act, 1894 or submit the proposal for modification of Notification of New Town to exclude such lands.

Considering the need for a strategy for land acquisition and development of un-acquired land likely non-feasible lands in Navi Mumbai Development Plan, a committee has been constituted by CIDCO VC&MD under the chairmanship of Shri. S.S. Patil (CCUC) and Report on 'Strategy of land acquisition and development of unacquired lands were prepared with Model-1 (for developable lands) and Model-2 (for undevelopable lands as above) and apprised to the Board.

As per approved Board Resolution No 11753, the board took note of the committee report on the recommendations being set out as Model-1 and Model-2 and resolved to send the same to the GoM for suitable directives. Accordingly, CIDCO has requested UDD, Government of Maharashtra to de-notify some un-acquired lands vide a letter dated 19th December 2016. The government vide its notification dated 31st October 2017 has deleted said lands from the Navi Mumbai Notified area and appointed CIDCO as Special Planning Authority (SPA) for the same.



CHAPTER – II GEOGRAPHICAL SETTINGS:

The chapter presents the existing profile of the project area. It describes the location and regional context and provides details of physiography such as topography, soil conditions, climate and geomorphology.

The SPA area is located in the CIDCO Navi Mumbai Project area and within the Mumbai Metropolitan Region (MMR).

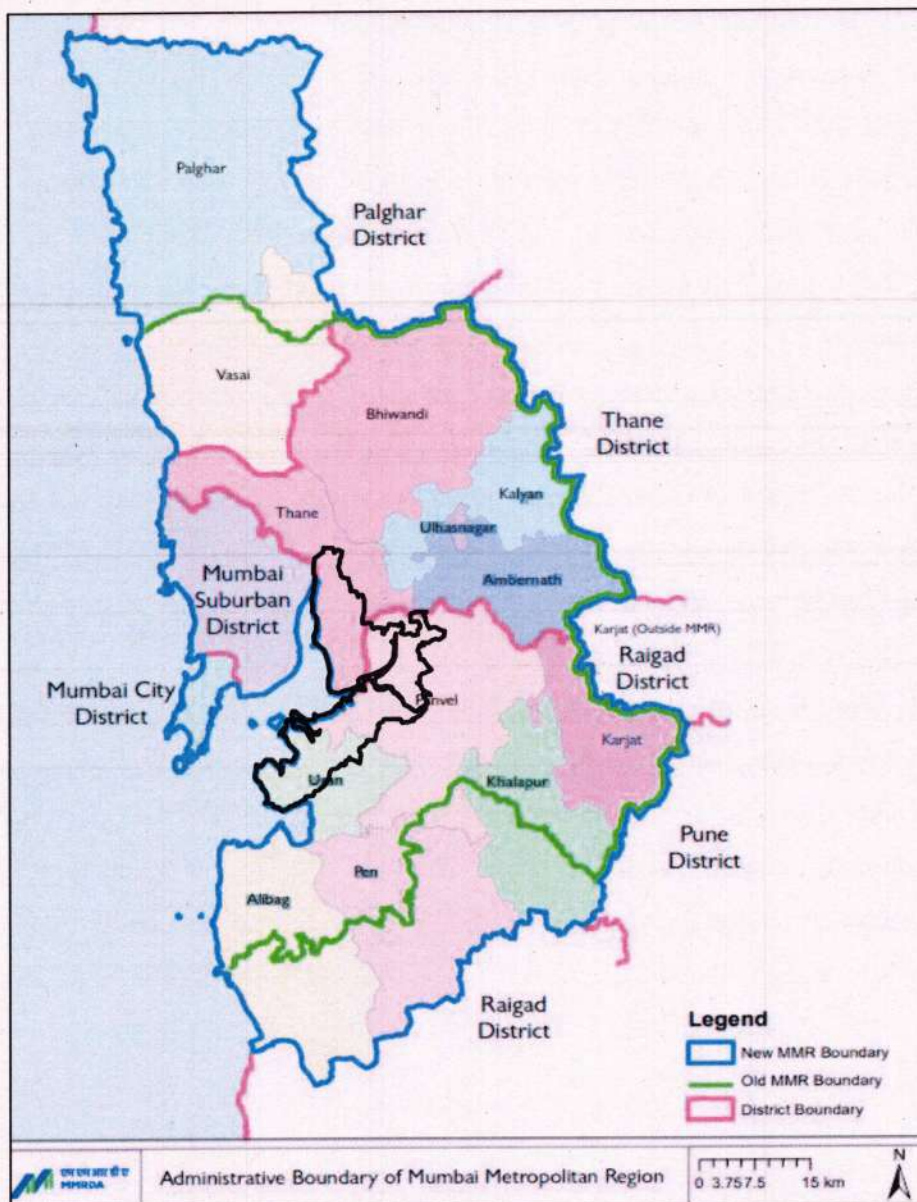


Figure 1 - Adminstrative Boundary of MMR Region and Navi Mumbai

Special Planning Authority area of approximately 1781.67 Ha. comprises 4 Pockets namely A, B, C, and D which further comprise 16 villages namely Dighe, Ilthan, Tetavali, Rabale, Ghansoli, Mahape and Borivali in Pocket A, Padeghar, Manghar, Chirle, Jasai and Vahal in Pocket B, Nagaon, Chanje and Mhativali in Pocket C and Karave in Pocket D respectively. SPA area located on the north with Dighe village followed by west with Karave Island, east with Manghar village, south with Chanje village of Navi Mumbai.

2.2 Regional Linkages:

Navi Mumbai is one of the vibrant sub-regions in MMR in terms of population and employment growth. MMRDA, CIDCO, and MSRDC have planned the number of transportation projects to provide regional connectivity to Navi Mumbai which is also passing through some parts of the SPA area. Part of the SPA area is connected with NMMC, MIDC and CIDCO areas by existing roads and hilly terrain connected by pathways

2.3 Topography and Landscape:

2.3.1 Topography:

The project area has hilly terrain and an undulating geography. Around 91 % of the project area is falling under Forest Authority jurisdiction, featuring prominently Parsik Hills in the east, Thane Creek in the west and Dronagiri Fort along Karanja Creek in the south.

2.3.2 Soil Condition:

Soils in the SPA area are formed from the Deccan trap. Depending on the topographical location, various types of soils are grouped as khar or salt, coastal alluvial and laterite soils. The soil quality here is favorable for the yield of valuable forest products such as teak wood, Hirda (Myrobalan), Beheda, etc. However, these soils are heavily eroded due to grazing and cutting of the forest trees. A major part of the SPA area is formed from the trap rock from the Sahayadri ranges under heavy rainfall and humid climatic conditions. The sub-soil water level is around 3 to 5 m deep. The salt content of the well water is high due to the proximity of the sea, but due to the excellent drainage, its use has not produced any deleterious effects.

2.3.3 Hydrology:

The Navi Mumbai SPA area has Mogliche Dam which is also known as Railway Dam is having an area of 3-4 Ha approximately. It is located in Dighe village of Thane District Jurisdiction. Also, there are waterfalls such as the Gavali Devi waterfall in Ghansoli and other small waterfalls has been observed during the monsoon season in the SPA area.

2.4 Climatology:

The climate of Navi Mumbai is hot and humid. It has a high humidity throughout the year. It lies in the tropical climatic zone. The annual temperature varies from 22°C to 36°C while in summers the maximum temperature ranges between 36°C to 41°C. The minimum temperature in winter ranges between 17°C to 20°C. The average annual rainfall is 2000-2500 mm and humidity is 61-86 %. Based on IMD's (Indian Meteorology Department) observations, the predominant wind direction is southwest in monsoon and northeast during the rest of the year.

2.5 Environment:

From an environmental point of view, some part of the land has dense forest as well as sparse forest observed and hilly terrain. Part of the Karave area is adjacent to the creek.

2.6 Forest:

SPA forest and hilly pockets fall under the Sahyadri range foothills at Village Dighe, Ilthan, Rabale Tetavli, Ghansoli, Mahape and Borivali. The region has important reserved forest areas. Hills are also seen at Village Mhativali, Nagaon and Chanje. Gavlidevi waterfall and Bird Watching area is located at Village Ghansoli. Dronagiri Fort is located on the hills of Village Chanje.



CHAPTER – III DEMOGRAPHIC CHARACTERISTICS

The chapter covers both quantitative and qualitative aspects of the human population. Quantitative aspects include composition, density, growth and qualitative aspects include sociological factors such as education, religion and health. The chapter contains the demographic profile of the same.

In the project area of SPA, there is no revenue gaothan settlement observed in sixteen villages. The residential settlement (slums) is approximately 5.03 Ha (0.28%) of the total area located at Dighe & Tetavali village in Thane District.

3.1 Distribution of Population and its Growth

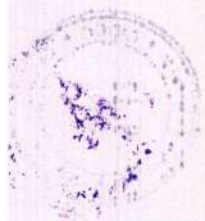
Lidar survey carried out for the SPA project by CIDCO and household observed in the images adjacent to MIDC, SPA area has a population of approximately 3500. Warehousing activities are observed in some land parcels of Padeghar, Vahal and Jasai villages. Therefore, considering the loading-unloading and parking factor in the above-mentioned areas there is a continuous floating population. Thus, there are approximately 4000 containers parked are observed. Considering the number of parked vehicles in the area the approximate floating population of 8000 is derived.

3.2 Population Density

Slums has been observed in SPA area which are located in Dighe and Tetavali villages, namely Vijay Nagar, Ramji Ambedkar Nagar, Ilthanpada and Vishu Nagar. Total Slum area is approximately 5.03 Ha and has a population density of approximately 700 persons per Ha (PPH).

3.3 Sex Ratio

As per data from the NMMC report, the sex ratio for the SPA area is worked out to be 950 females per 1000 males as against the respective sex ratio figures of 929 for Maharashtra State. Out of a total population of 3500 souls, the number of males and females is 1705 and 1795 respectively.



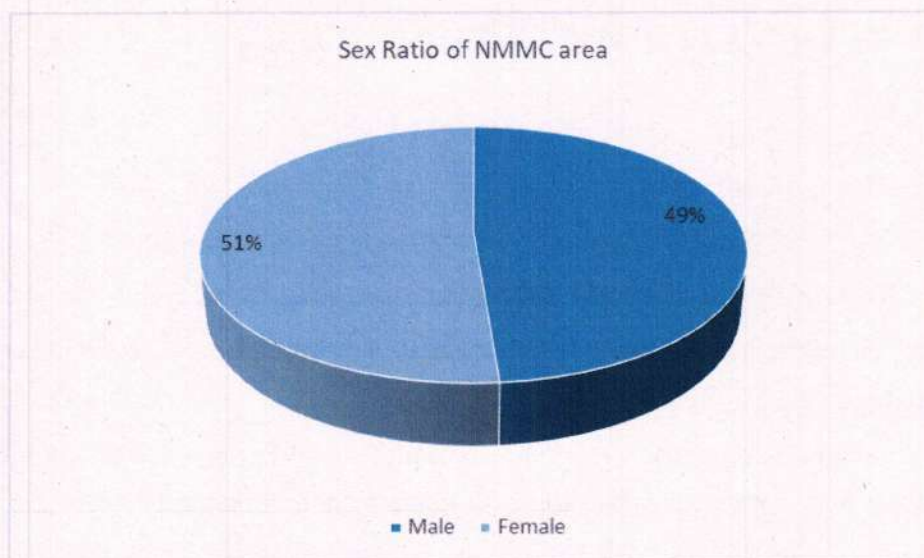


Figure 3- Sex Ratio of NMMC Area.

3.4 Occupational Structure and Employment Pattern

The SPA area of Thane tehsil is near the existing MIDC area. Most of the population of Pocket A of SPA area works in service sector industries of MIDC in Thane tehsil and in southern part of SPA area which is pocket B and D pocket has floating population who works in warehousing related activities in the surrounding area. Jawaharlal Nehru Port Trust, the highest container handling port in India, is in proximity of the SPA area. This port and the major transportation networks NH-348A passing through SPA have created opportunities for the development of non-agricultural economic activities. The major non-agricultural economic activities in the area are logistic hubs, warehousing, industries, service industries and commercial activities.



CHAPTER-IV DEVELOPMENT PLAN PROCESS, VISION AND OBJECTIVES

4.1 Planning efforts in the past:

CIDCO being as NTDA, has acquired most of the lands for the development of a new town i.e. Navi Mumbai. CIDCO's sanctioned DP modified up to June 2021 is a Structural Plan showing the zoning of lands i.e. Residential, Commercial, Industrial, Regional Park, SEZ, NDZ, etc. In the present NMDP whole SPA area is in the Regional Park Zone.

Navi Mumbai Municipal Corporation (NMMC) recently, on 09th August 2022, published the Draft Development Plan (DDP) for their area under section 26(1) of MR&TP 1966 Act, wherein villages from the Thane district of CIDCO SPA boundary are shown under Forest Land use.

4.2 Need for Preparation of Development Plan:

Development Plan indicates the manner in which the use of land shall be regulated and indicates the manner in which the development of land shall be carried out. It defines the use of land in terms of activities such as residential, commercial, industrial, agricultural, recreational, public utilities, physical and social infrastructure.

Preparing an Existing Land Use Survey (ELU) is the first mandatory step in formulating a Development Plan. ELU has been prepared by CIDCO for the SPA area.

4.3 Legal Formalities:

- CIDCO was appointed, as Special Planning Authority vide Government Notification dated 31st October 2017.
- CIDCO being SPA of this area, has declared its intention to prepare a Draft Development Plan for part of 16 Villages in CIDCO's jurisdiction vide Board resolution no. 12443 dated 05.08.2021 under section 23 (1) of the MR&TP Act 1966. The notice of said intention was published in Maharashtra Govt. Gazette on October 21-27, 2021.
- Joint Director, Town Planning Department, Konkan Division has approved the appointment of Senior Planner (DP) as Town Planning Officer(TPO), under section 24 of the "MR&TP Act 1966" for the SPA area in CIDCO's Jurisdiction vide letter dated 23rd December 2021.
- It is mandatory to prepare a Development Plan (DP) within 3 years from the date of its appointment under Section 21 of the MR & TP Act, 1966. With due approvals, the

declaration of Intention for the Preparation of DP for this area was published in the Government Gazette on 21st October 2021.

- As per section 25 of the MR & TP Act 1966, the Existing Land Use map shall be prepared within six months after the declaration of the intention. CIDCO vide letter dated 01st July 2022 requested the Government for an extension of six months i.e. up to 21st October 2022 for preparation of the Existing Land Use (ELU) map for the SPA area.
- The Government has granted permission for the extension time limit for preparation of ELU till 21st October 2022 vide letter JDTP/KD/DP Thane/extension/1309 dated 18th July 2022.
- After carrying out an Existing Land Use Survey, CIDCO has prepared an Existing Land Use (ELU) map under section 25 of the MR & TP Act 1966. After completion of ELU, CIDCO has been informed to the State Government vide letter dated 19th October 2022.
- CIDCO has prepared a Proposed Land Use for the SPA area and the same has been approved by the Board of Directors of the CIDCO for publication of Draft Development Plan (DDP) u/s 26 (1) of MRTP Act 1966 on dated 07th February 2024.
- CIDCO has prepared a Draft Development Plan (DDP) u/s 26(1) of MR & TP Act 1966 for inviting suggestions/objections from the public.

4.4 Consultation with stakeholders:

Under the provisions of MR & TP Act 1966, it is not mandatory to consult the stakeholders or nothing is mentioned about public consultation before publication of DP in the MR & TP Act 1966. Major lands fall in the hilly region and belong to the Forest Department, Govt. of Maharashtra.

4.5 Main Stages of Preparation of Development Plan:

4.5.1 Preparation of Base Map

Survey numbers and their areas falling in the SPA project are certified by the Lands Department of CIDCO. The georeferenced combined village plans are procured from a survey agency. For the Development Plan, a base map showing the boundaries of the project area within the jurisdiction of CIDCO is prepared. The village-wise combined map with Existing Land Use to a scale of 1:10,000 is prepared.



4.5.2 Survey – Analysis and Findings

The Existing Land Use Map (ELU) is the basis for preparation of development plan, which is mandatory as per section 25 of MR & TP Act, 1966. This chapter presents making of the ELU of the SPA area and its survey methodology.

For the SPA area, Lidar Survey was carried out for all land pockets from Dighe of Thane district to Nagaon of Uran Taluka, Raigad District. The Drone survey has been carried out in 2022 and the same data has been analyzed.

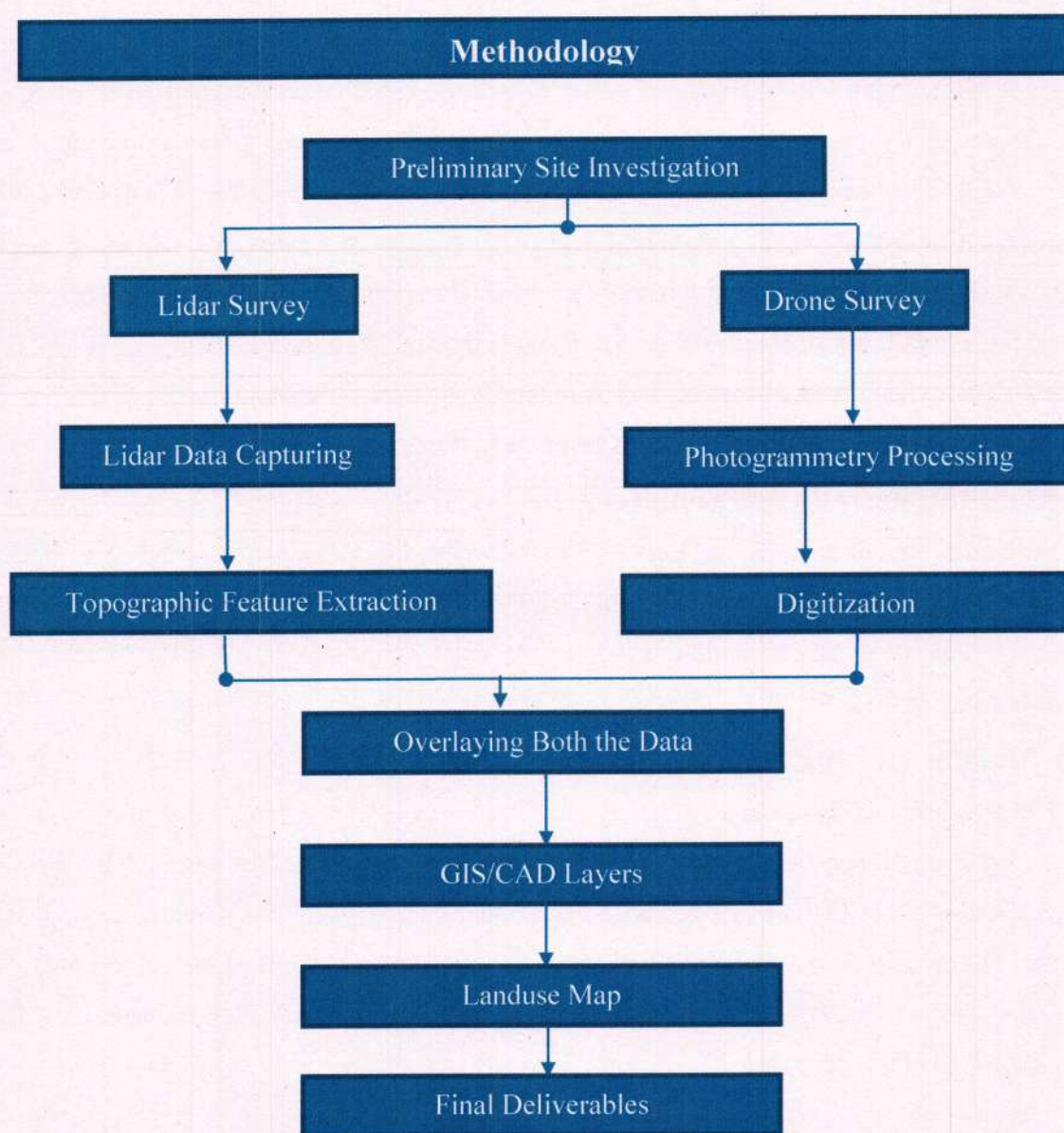


Figure 4-Methodology of Topographic and Existing land Use Survey for SPA area

4.5.3 Data Collection

For the purpose of preparation of Development Plan, CIDCO had procured Google images / satellite imagery. Forest land information is collected from Lands Department of CIDCO. The information regarding Government land, Forest Land and Private Land is downloaded from the website of Government of Maharashtra and same is verified with the Lands Department of CIDCO.

4.5.4 Primary Survey

The survey team from Planning Department conducted the physical survey and took the photographs to understand the geography of the existing conditions of the SPA area.

4.5.5 LiDAR Data Processing

Contour lines are the most common method of showing relief and elevation on a standard topographic map. A contour line represents an imaginary line on the ground, above or below mean sea level. All points on the contour line are at the same elevation. The elevation represented by contour lines is the vertical distance above or below mean sea level. Digital Elevation Model (DEM) has been generated based on the filtered and edited LiDAR data / (bare earth) incorporating streams and break lines and points. The contours at 1-meter and 5-meter intervals have been derived from the DEM.

Cartographically, the intermediate contours and every fifth contour have been drawn with different thicknesses and contour values to enhance contour readability and indicate the index contour. Starting at zero elevation or mean sea level, every fifth contour line is a heavier line. Each index contour line is numbered at its centroid indicating the elevation of that line. This number is the elevation of that contour line.

4.5.5 Existing Land Use

SPA (Special Planning Authority) has a total area of approximately 178.67 Ha. comprises 4 Pockets namely A, B, C, and D which further comprise 16 villages namely Dighe, Ilthan, Tetavali, Rabale, Ghansoli, Mahape and Borivali in Pocket A, Padeghar, Manghar, Chirle, Jasai and Vahal in Pocket B, Nagaon, Chanje and Mhativali in Pocket C and Karave in Pocket D. The area is predominantly Forest with few residential settlements seen in Pocket A. The major land use is Forest (91.34%) followed by Warehousing (3.19%) and Agriculture (1.53%).

I. Agriculture

Agricultural land use is limited to the Karave pocket, area aggregates to about 27.31Ha (1.53%).



II. Forest

SPA forest and hilly pockets fall under the Sahyadri range foothills at Village Dighe, Ilthan, Rabale Tetavli, Ghansoli, Mahape and Borivali. The region has important reserved forest areas. Hills are also seen at Village Mhativali, Nagaon and Chanje. Gavlidevi waterfall and Bird Watching area is located at Village Ghansoli. Dronagiri Fort is located on the hills of Village Chanje. The forest area is approximately 1627.46 Ha which is 91.34% of the total SPA area.

III. Marshy Lands

Pocket Karave in Thane of SPA area are CRZ affected. Marshy / waterlogged areas with shrubs are observed at the time of survey. The total area under this land use is approximately 9.25 Ha, which is 0.52% of the total area.



Figure 5- Village Karave Marshy Land

IV. Quarry

Quarries are seen at Village Dighe, Ilthan, and Borivali in Thane District and at Padeghar, Vahal, and Jasai Villages in Raigad District. Presently, quarries from the Thane district are not in working condition. Ongoing quarry activities are seen at Village Padeghar, Vahal, Jasai. The area under quarries is approximately 36.61 Ha, which is about 2.05% of the SPA area.





Figure 6- Quarries at village Padeghar, Vahal and Jasai

V. Residential

Residential areas are seen at the bottom of hill at Village Dighe & Tetavali. The developments are mostly located adjacent to MIDC area. These slums have substandard housing, poor services and are overcrowded. The access to each house is from 2.0 meter wide pathways. There is lack of services in this area with no physical and social infrastructure.

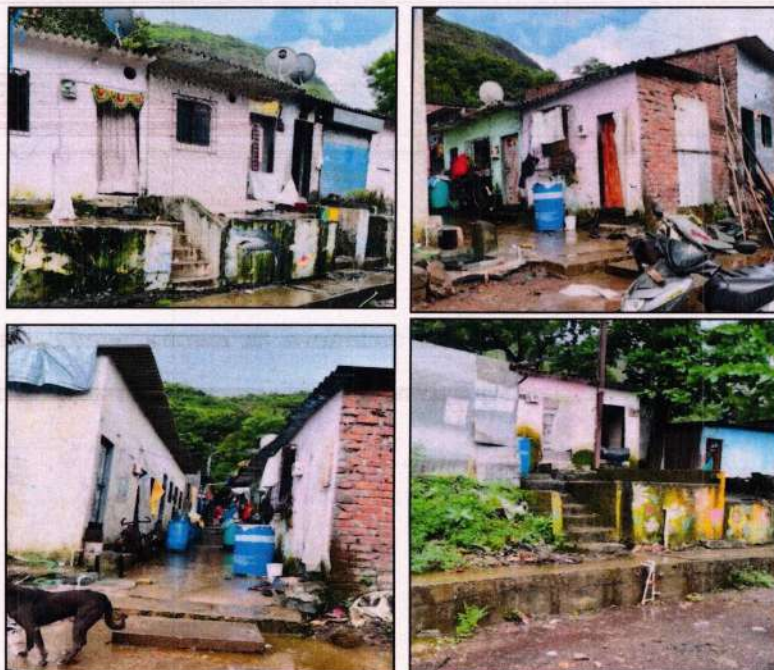


Figure 7- Condition of Houses in Slums

VI. Transportation

The transportation network in the area includes the road network. The total area under transportation land use is approximately 15.57 Ha, which is 0.87% of the total area.

VII. Warehousing

Jawaharlal Nehru Port Trust, which is the highest container handling port in India, is in the proximity of the SPA area at Village Vahal and Jasai.



This proximity of JNPT has led to the development of warehousing and logistics activities in this area. Most of these activities are observed along transport corridors i.e. mainly along JNPT road (NH-348) and Gavhanphata-Chirner Road (SH-104) at villages Padeghar, Vahal and Jasai. The warehousing area comprises of approximately 56.77 Ha, which is 3.19 % of the total SPA area.



Figure 8 - Logistics Activities at Village Padeghar

VIII. Water Bodies

A prominent dam is seen at Village Dighe known as Mogliche Dam also known as Khandicha Lake which is a reservoir built in the early days to provide water to the Thane station area. Having a Capacity of 135 MLD and a Length of approximately 180 M, the Dam has a pipeline serving Thane railway station. There are slums located at the base. The dam has an 18-acre catchment area and 18 m height constructed in 1912 for the supply of water to steam engines located at Thane. This lake is near Dighe and is a beautiful place among the hills. The area of water body is approximately 3 Ha.



Figure 9 - Water body (Mogliche Dam/Railway Dam at village Dighe)

Table 1-Existing Land Use Area Statement of SPA Area of Navi Mumbai

Sr. No.	Land Use	Area in Hectares	% to Total Developed Area	% to Total Area
1	2	3	4	5
1	Residential (Slum)	5.03	6.50	0.28
2	Industrial	56.77	73.37	3.19
3	Transportation	15.57	20.12	0.87
4	Total Developed Area	77.37	100.00	4.34
5	Forest	1627.46	--	91.34
6	Agricultural	27.31	--	1.53
7	Waterbody	3.66	--	0.21
8	Marshy land	9.25	--	0.52
9	Quarry	36.61	--	2.05
10	Total Un-developed Area	1704.29	--	95.66
11	Total Area	1781.67	--	100

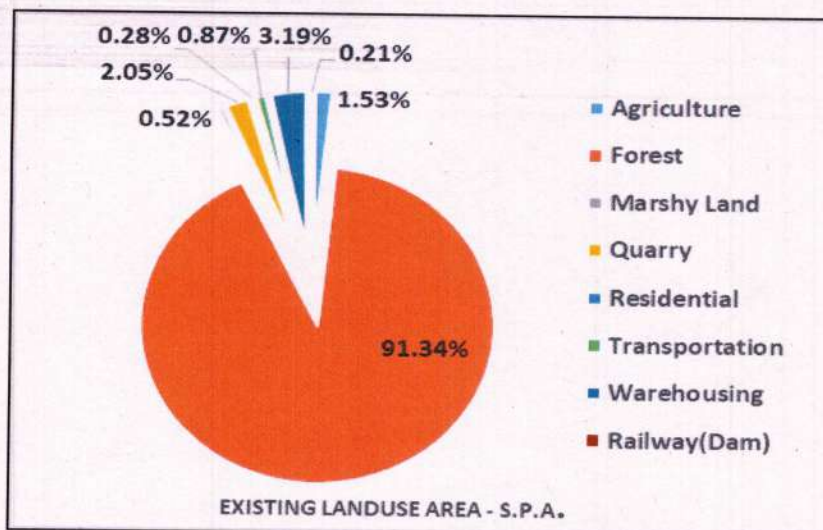


Figure 10 - ELU Distribution in SPA Area



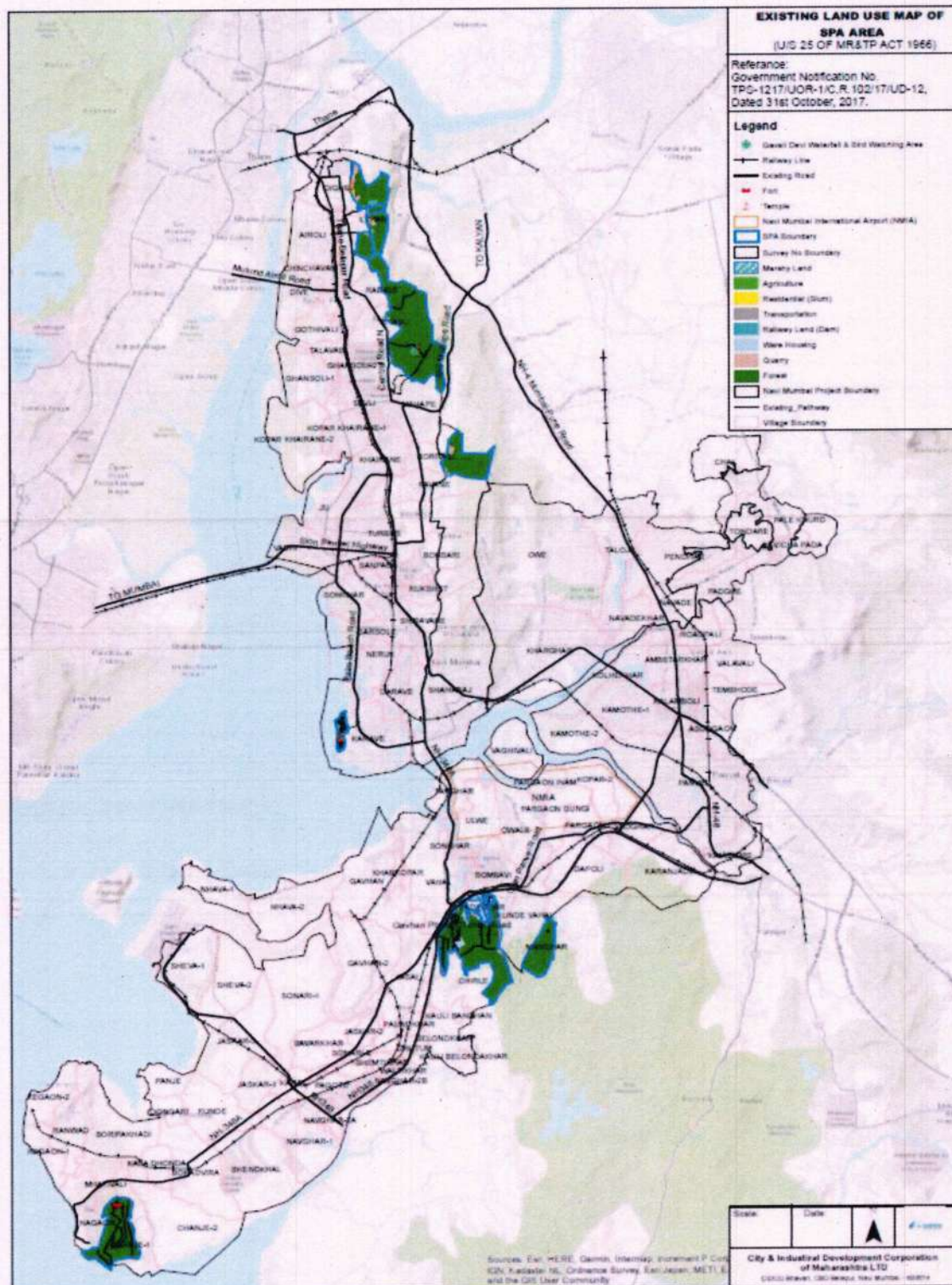


Figure 11- Existing Land Use Map of SPA Area

CHAPETER – V SOCIAL INFRASTRUCTURE

5.1 General:

The sustainability and quality of life in any urban area are closely linked to the quantity and quality of basic infrastructure facilities that support it. This chapter gives a brief assessment of the existing social and physical infrastructure in the Navi Mumbai SPA area. SPA area mostly hill terrain and slums observed in Thane tehsil. These slums are developed in Forest lands towards the hill base and adjacent to the NMMC area. There is a lack of services in this area with no physical and social infrastructure available due to illegal development.

5.2 Education Facilities:

In the NMMC area, there are existing educational facilities which include balwadi/ crèche, primary and secondary schools, colleges providing higher educational facilities in various faculties like Science, Arts, Commerce, Engineering, Pharmacy, Law, Medicine, Management etc. and other institutes which are adjoining to SPA area therefore same may be considered.

5.3 Health and Medical Facilities:

Site visits have revealed that, in SPA pockets there are no Health facilities such as dispensaries or primary health centers (PHCs) due to illegal settlements and floating populations.

In the NMMC area, the Health of an individual depends on the surrounding environmental conditions. Cities, towns and villages must have well-equipped medical facilities which can provide proper and effective medical treatment to the people. Many private and government hospitals in Navi Mumbai are equipped with the latest technologies, specialist doctors, and experienced staff that can handle any emergency cases. Day and night chemists are also available in the city. Besides the Government and Navi Mumbai Municipal Corporation's Hospitals, private hospitals and dispensaries also cater to the needs of the people to a great extent. As far as the health infrastructure is concerned, there are existing General hospitals and Primary Health Centers, which cater to the needs of the population. This would facilitate the city-level medical needs. Dispensaries (PHC) each would cater to the local health facility requirement at the city level. These all are adjoining to the SPA area therefore same may be considered.

5.4 Commercial facilities:

Neighborhood shopping is available at Village Dighe and Ilthan. Small-scale neighborhood shopping for daily needs like grocery shops, medical shops, vegetable shops,



ATMs, etc. is observed in almost all settlements on the primary access road. In Jasai, Vahal, Padeghar and Chirle major commercial activities like hotels, and restaurants are seen along the National Highway 348 JNPT Road and State Highway 104 Gavhanphata-Chirner Road.



Figure 12 - Commercial Facilities in and around the village.

Commercial facilities such as the Agricultural Produce Market Committee Yard, wholesale/ retail grain markets, vegetable markets, mutton markets, and masala markets exist in the developed part of the Navi Mumbai Corporation area. There are other commercial establishments like shopping malls, departmental stores, company showrooms, etc. and so many retail shops. There are some vegetable markets. However, in many places, it is seen that vegetable vendors are doing business along roadsides. Moreover, there is no organized space for hawkers. Market / Daily Bazaar/ market complexes include Fish/Meat Market, Small Grocery Shops, Flour mills, Milk Booths, Personal Service Establishments, Post Offices, etc. are existing in adjacent developed areas.

5.5 Recreational and entertainment facilities:

One Shiv Temple is seen within the Dighe slum settlement in the SPA area, Baman dev Mandir is located at Karave pocket, and Chirle has Kanhoba Temple located just outside the SPA pocket. Apart from these, residential settlements of Village Dighe are dependent on nearby developed nodes of Navi Mumbai for socio-cultural activities.



Figure 13 - Socio-Cultural Activities in the Villages

Some of the multiplexes in adjacent developed areas are constructed by private landowners for entertainment and recreational purposes. All above are adjacent to the SPA area these serve the needs of the SPA area in addition to this there is Gavalidev Waterfall and Bird Watching Centre is available in Ghansoli Village of Pocket A which is functioning as a recreation facility and is considered to be developed by MTDC for tourism point of view. This Gavalidev i.e. Shila is situated at the hilltop Parsik hillock near the Ghansoli MIDC area. This temple i.e. Shila is very old and attracts devotees. There is a lake near this area. NMMC has already allotted a grant to the Forest Department for the development of this spot as a tourist attraction as during rainy season with the hilly areas and dense forests surrounding it, this place attracts tourists.

5.6 Cremation and Burial Grounds:

One Crematorium is existing in Ilthan Village near Ilthanpada. Existing cremation grounds are located along the bank of Creek or Nallas as these are adjacent to the SPA area same may be served to the SPA area.

5.7 Ancient and Historical Monuments and Sites:

Ancient and historical Dronagiri Fort is situated in Village Change of Pocket C which is considered for preservation by the Archaeology Department.



Figure 14 - Gavalidevi Waterfall and Bird Watching Area at Ghansoli

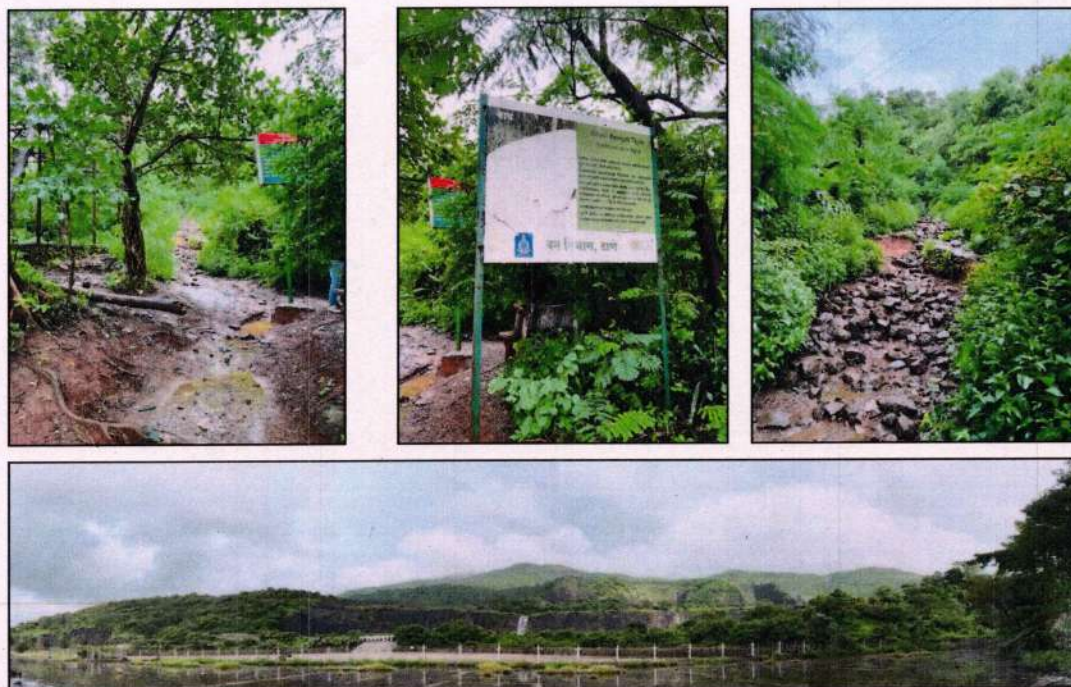


Figure 15 - Dronagiri Fort



CHAPETER – VI TRANSPORT AND COMMUNICATION

6.1 General:

The SPA area is divided into various parts, starting from Dighe in the North and up to Dronagiri Fort in the south. The SPA area is well connected to neighboring NMMC and CIDCO areas both by roads and railways network. The proposed Navi Mumbai International Airport is located near the SPA area and JNPT (Jawaharlal Nehru Port Trust), one of the largest container ports in India is located south of Navi Mumbai.

6.2 External communication:

Three major transportation alignments, namely Mumbai Trans Harbour Link (MTHL), Multi-Modal Corridor (MMC) and National Highway NH- 348 traverse through Part of Pocket B of the SPA area. Other Pockets such as A, C and D are connected through arterial and sub-arterial roads to the neighborhood of the precinct.

6.3 Airways:

The nearest one of the existing Airports is Chhatrapati Shivaji Maharaj International Airport (Domestic and International facilities) which is located about 30-40 km from the SPA area. The proposed Navi Mumbai International Airport is also under construction, which is close to the SPA area. It is hardly located around 5 km from pocket B of SPA. This airport is likely to be completed in 2024 and may be functional in 2025. Navi Mumbai International Airport (NMIA), is the second airport for Mumbai Metropolitan Region (MMR) to be located in Navi Mumbai.

6.4 Railways:

Harbour Railway from CSMT, Mumbai to Panvel and Trans-harbour from Thane to Panvel via CBD Belapur and Thane to Vashi via Sanpada are already passing through Navi Mumbai area and serve as Suburban Railway Services for the benefit of citizens of Navi Mumbai area. In addition to this, a new suburban railway network from Belapur to Uran and Nerul to Uran is also beneficial to the Ulwe and Dronagiri areas of Navi Mumbai.

Pocket A - Dighe, Ilthan, Rabale, Tetavli, Ghansoli, Mahape and Borivali.

Existing Suburban Rail i.e. Trans Harbor link (Thane-Panvel) is around 1 Km from this pocket.

Pocket B - Manghar, Padeghar, Vahal, Jasai and Chirle.

The dedicated Freight Corridor (DFC) being developed by DFCC passes adjacent to the above pockets eventually connecting to JNPT.



Pocket C - Chanje, Nagaon and Mhativali.

Uran Railway station is located approximately 2 Km from this pocket. There is no direct connectivity via the railway network to this pocket.

CIDCO has also started a Metro rail from CBD Belapur to Pendhar (Near Taloja) which is part of Navi Mumbai

6.5 Roadways (External):

The SPA areas area is near external roadways such as Thane – Belapur State Highway, MTHL, NH-48 (Mumbai- Bangalore), Mumbai – Pune Expressway via Vashi and NH 348 (Palaspe to JNPT) which connects to parts of other cities.

6.6 Waterways:

Integration with Regional Transport Network: The airport and the Sea Port (JNPT) are the two traffic-generating centers with national significance. The regional connectivity therefore becomes a major consideration in planning transport infrastructure predominantly at Pocket C. Accordingly the regional, interstate and national level of roads have been considered and incorporated in the proposed transport network.

6.7 Roads (Internal):

Pocket A Dighe, Ilthan, Rabale, Tetavli, Ghansoli, Mahape and Borivali. Thane-Belapur road is around 1 km from these pockets of the SPA area. Mulund Airoli Road is around 1.5 Km from Rabale Pocket of the SPA area. Pocket Ghansoli has direct access to MIDC-Mahape Road. MIDC-Mahape Road and Shil Phata Mahape Road is approx. 800 mt from Mahape Pocket.

Existing Roads

- ❖ Thane-Belapur road
- ❖ Mulund Airoli Road
- ❖ MIDC-Mahape Road
- ❖ Shil Phata Mahape Road

Figure 16 - Roads at Pocket Dighe, Ilthan, Rabale, Tetavli, Ghansoli, Mahape



Pocket B Manghar, Padeghar, Vahal, Jasai and Chirle.

The existing JNPT road (NH-348) is passing through Pocket Padeghar and SH-54 is around 0.5 Km distance from Pocket Padeghar. There is a cloverleaf interchange (Gavhanphata) at Pocket B Vahal between Amra Marg and JNPT Road (SH-348). SH-104 is passing through Pocket Vahal and Chirle. Pocket Jasai has direct access from NH-348.

Existing Roads

- ❖ NH-348 – JNPT Road
- ❖ NH-348A – Amra Marg
- ❖ SH-104 – Gavhanphata-Chirner Road
- ❖ SH-54 - Uran Panvel Road

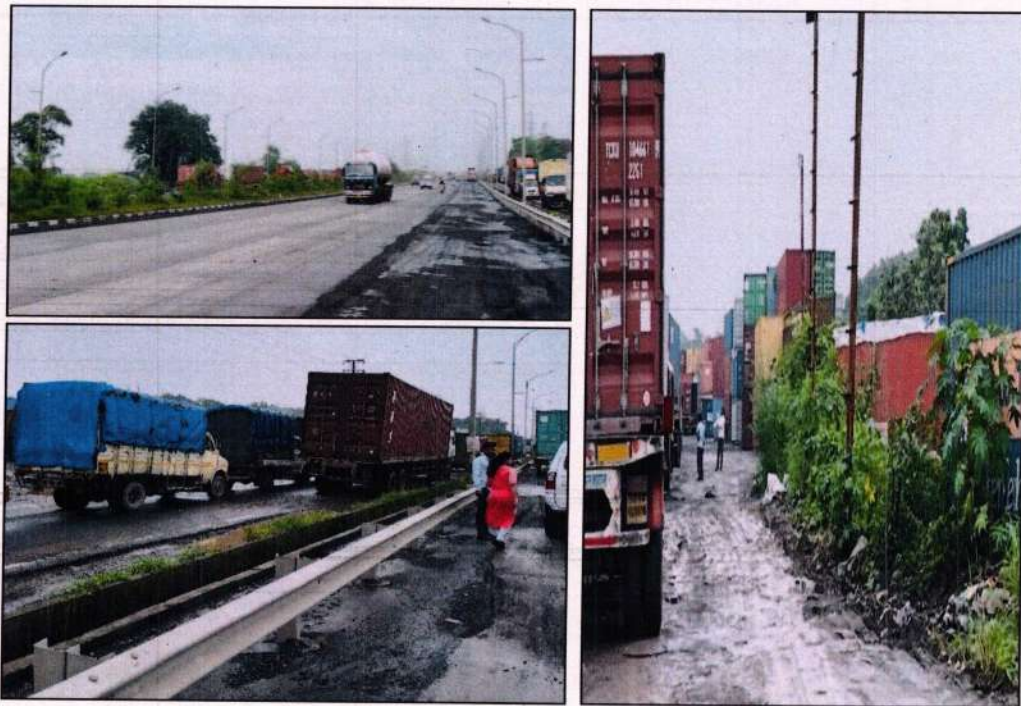


Figure 17-Roads at Pocket Manghar, Padeghar, Vahal, Jasai and Chirle

6.8 Existing Road:

Pocket C - Uran Panvel Road (SH-54) is around 1 Km from this pocket. No direct road connectivity to this pocket because of hilly terrain. Hill observed on site is known as Dronagiri Hill.

Pocket D - which is Karave island has an access of existing bund connected with palm beach road.



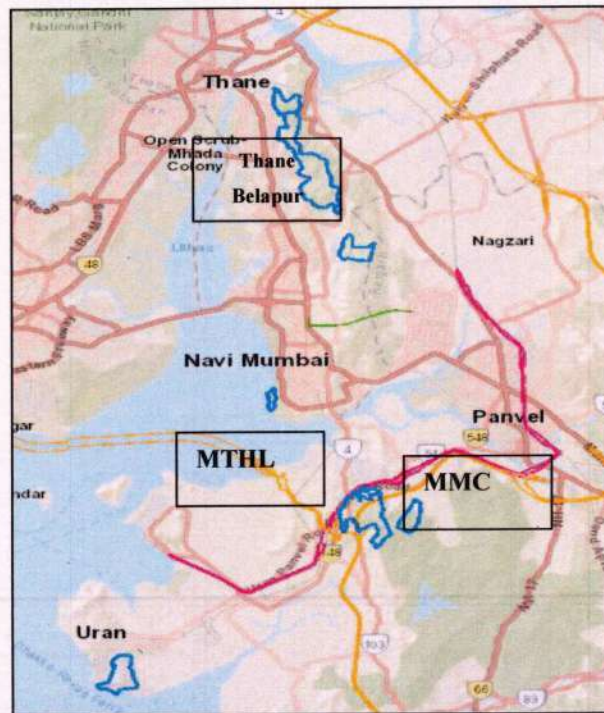


Figure 18- Existing Road Network in Navi Mumbai Region

6.9 Bus and passenger traffic:

City bus service, at present, is run by NMMT in some portions of SPA areas. The State Transport (ST) buses are also passing through the SPA area and its bus stops (pickup and drop-up services) are located in various locations. However, ST buses originate from Dadar, Thane, Uran and Panvel.

6.10 Parking Facility:

There are no formal public parking spaces in the SPA area. Privately owned/maintained Container/truck parking facilities are available in Padeghar and Vahal villages.

Figure 19 - Truck Parking Facility at Village Padeghar



CHAPTER-VII ECONOMIC BASE AND GROWTH POTENTIAL

7.1 Introduction:

The SPA area, at present, is predominantly dispersed over the Navi Mumbai region over forest land and partly private land pockets. It is rich in terms of natural resources such as water sources like dams and waterfalls, a dense forest in some parts and the hilly terrain. In addition, it is conducive for industrial/warehousing growth at pocket B and for residential at pocket D.

7.2 Employment Pattern:

As mentioned in previous chapters the maximum land parcels are under forest ownership and followed by private plots at Pocket B and D. NMMC DDP has shown some encroachment at villages Dighe and Tetavali. The population in this illegal settlement is engaged in secondary and tertiary sectors respectively. Industrial workers and laborers are engaged in services like warehousing. At pocket B most of the population is a floating population and this population is employed by warehousing and allied logistics activities.

In the northern area of SPA population provided service to the adjacent industries of the existing MIDC. Southern areas of SPA are majorly involved in logistics and container yard services.

7.3 Industrial Activities:

There are no industrial activities observed during the site visit of the SPA area but adjacent to the Northern area of SPA, the TTD MIDC estate has developed by MIDC.

7.4 Trade and Commerce:

No major trade and commerce activity was observed in the SPA area. Agricultural Produce Market Committee (APMC) is a statutory market committee constituted by a State Government in respect of trade in certain notified agricultural/horticultural/livestock products and located within the Navi Mumbai area. Mumbai Agricultural Produce Market Committee was established on 15th January 1977 under the provisions of the Maharashtra Agricultural Produce Marketing (Regulation and Development) Act, 1963.



CHAPTER – VIII UTILITIES AND SERVICES

8.1 Water Supply:

In the SPA area, it was observed on site that almost all the houses have tap water connections outside of the house or within the group of houses.



Figure 20-Showing Tap Water Connection in the Settlement

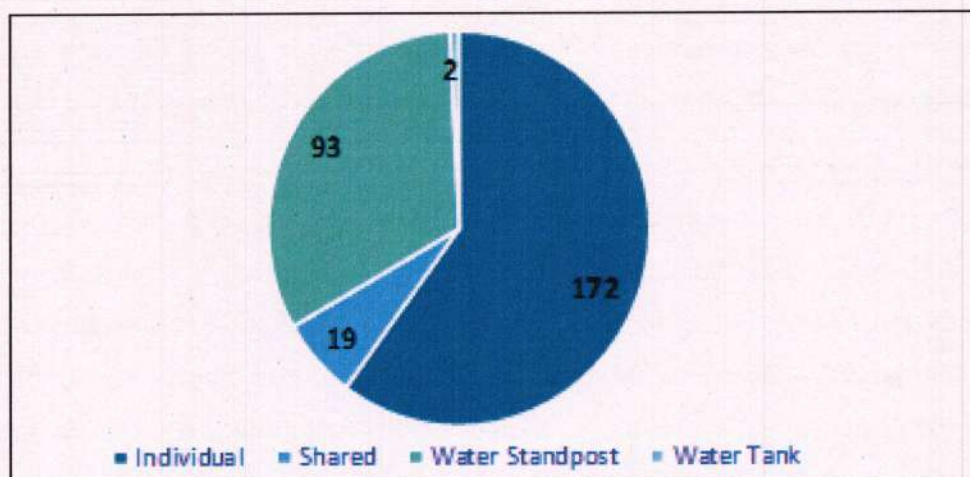


Figure 21 - Showing Types of Water Connection in the houses





Ramji Ambedkar Nagar



Vijay Nagar

Figure 22 - Showing Types of Water Connection in the houses on Plan

8.1.1 Water Source, Filtration and storage

In the Northern areas of SPA water supplied by NMMC as local body for this area. NMMC have its own water source for NMMC area through dams. Same is filtered by water filtration plant and stored by NMMC by their own water supply and distribution system. In other areas water source is bore wells and wells.

8.2 Drainage and Sewerage

8.2.1 Community Toilet Block

Slum of pocket A has community toilet block and urinal provided by NMMC. Few houses has their own toilet, some of them uses community toilet and some uses shared toilets in these slums.



Figure 23 - Showing Community Toilets in the Settlement.





Vijay Nagar



Ramji Ambedkar Nagar

-Figure 24 - Showing in the plan the Community Toilets in the Settlement

8.2.2 Storm Water Drainage

Slums area of pocket A has open gutter as well as well-equipped storm water drainage system with chambers.



Figure 25 – Showing Storm Water Drainage System in Vijay Nagar Slum

8.3 Solid Waste Management

Almost every households of pocket A has garbage bins for waste disposal. At some locations garbage is openly dumped by public.

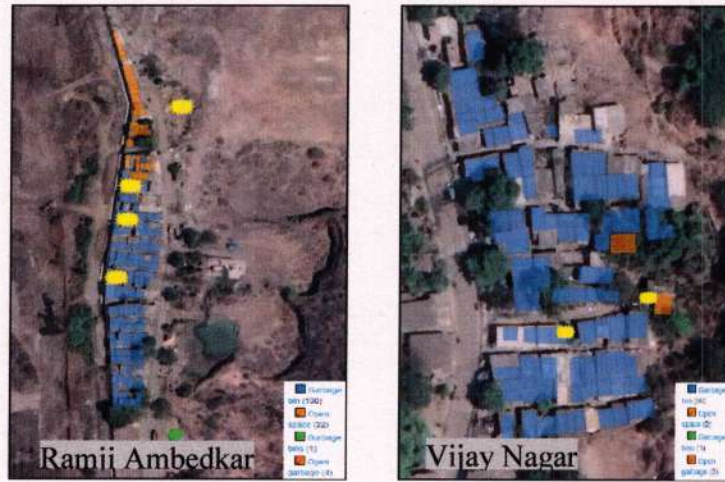


Figure 26 - Showing Types of Solid Waste Collection in the houses on Plan

8.4 Power Supply

The area is well served in terms of electric connection where households have an electric connection through Maharashtra State Electricity Distribution Company Limited (MSEDCL), a wholly owned corporate entity under the Maharashtra Government, which was incorporated under the Companies Act on 31st May 2005 after restructuring the erstwhile Maharashtra State Electricity Board to distribute electricity from the endpoint of transmission to the end consumers.

8.5 Fire Brigade

There is no individual Fire Brigade in the SPA area. There are several Fire Brigade services provided by NMMC, MIDC, CIDCO, PCMC, and other bodies like ONGC, JNPA, etc. near to SPA area.



CHAPETER – IX CONCLUSION AND OBSERVATIONS

9.1 Level of Implementation of Development Plan

The existing Development Plan (DP) was sanctioned by Govt. on 18th August 1979 and 18th January 1980 and came into force on 01st March 1980. DP was prepared by CIDCO and sanctioned by Govt. as well as modified up to June 2021. As the initial development was slow, a large number of land pockets were not developed to reduce land appropriation costs and to avoid environmental impacts through land engineering. Most of the unacquired and undeveloped land parcels in Navi Mumbai New Town fall in the 'Regional Park Zone' having an area of about 62 sq. km. out of 344 Sq km. Inevitably, the development of RPZ can no longer be fastened. Hence, it is necessary to evolve a suitable mechanism to regulate the development in a systematic and balanced manner, with due regard to the characteristics of various locations in this zone. By imparting orderly development, it would invite value-added facilities. Moreover, it would help to protect the area from indiscrete exploitation of natural resources and revitalize the overall living environment.

9.2 Identification of problems

- i. Most of the land is above 30 m contours in hilly terrain, it is not feasible to develop in the Regional Park Zone and owned by the Forest Department, Govt. of Maharashtra.
- ii. Environmentally significant areas such as forest areas are excluded from developable lands.
- iii. Physically undevelopable areas such as hills with steep slopes (greater than 1:5) are also excluded from developable areas
- iv. Old and historical fort located in the SPA area required to be preserved.
- v. Encroachment rises in forest lands in the hilly terrain.
- vi. Due to the increase in demand for warehousing/ container yards due to JNPT port activity, unauthorized container yards are developed on the Southern side.



Priyadarshan T. Waghmare
Associate Planner (DP)
CIDCO Ltd. Navi Mumbai



Jagdish B. Patil
Senior Planner (DP) &
Town Planning Officer (SPA)
CIDCO Ltd. Navi Mumbai

CHAPTER – X FRAMING OF PROPOSAL

10.1 General

This chapter briefly explains the vision for the development of the SPA area and the strategy to attain the same. The chapter also discusses the identified focal areas to bring strategy into action. The Development Plan does not only aim at solving the problems identified but also should aim at incorporating some new concepts/ideas so that the Development Plan becomes a pro-development vision document and drives the city's development in a planned manner. Accordingly, following vision and objectives have been set to frame the planning proposals.

10.2 Vision of Development Plan

To achieve planned, comprehensive, participative, stakeholder and environment-friendly, rational, sustainable and growth-driven development of the SPA area.

The land use proposals for the Navi Mumbai SPA area have been framed keeping in mind the spirit of Forest land is to be protected and conserved as around 91.34% of land in the Existing Land use (ELU) map is under forestland use. The area is environmentally sensitive as it has a waterfall and bird-watching area in Pocket A and surrounding areas. Karave island which is Pocket D, is partly surrounded by marshy land and comes under CRZ and the rest of the land is table land. Pocket B is majorly affected by economic infrastructure such as MMC, MTHL, Ware Housing and logistics, thus it has good development potential.

Pocket C has Dronagiri Fort and forest lands. Thus by understanding of SPA area and surrounding conditions or influencing factors, the proposal is framed in such a way that the development has to be economically progressive and environment friendly. While proposing land use to the SPA area, the surrounding land use in the NMDP is also considered to attain integrated and holistic planning. Lands with hilly terrain and forests are proposed under RPZ to have an integrated planning approach.

10.3 The Main Objectives of the Development Plan

- i. To maintain Forest areas to balance the environment and greenery of the area.
- ii. To make provisions in the DP to create a balanced housing stock as per population growth in table/plain land
- iii. To maintain an Environment and Ecology of the area.
- iv. To ensure proper utilization of the land and to guide future development in a disciplined and orderly manner.



- v. To make provisions for logistics activity along the transport corridor.
- vi. To maintain ancient monuments like Fort and attract tourists contribute to economic activity.

10.4 Demographic Projection:

There are various population projection methods are described in the DP manual of Govt. of Maharashtra for calculation. Such as the Arithmetical Increase Method, Geometrical Increase Method, Incremental Increase Method and Graphical Method. The SPA area is the part of Navi Mumbai Project area, which is mainly hilly terrain, and forest area earmarked by CIDCO. There was no human settlement in the SPA area as per revenue village maps and also it was not observed in the Sanctioned Navi Mumbai Development Plan prepared by CIDCO. But in Thane tehsil, some slum pockets/ illegal settlements are observed in the Forest area.

Various methods mentioned below have been adopted for demographic projection:-

i. Arithmetical Increase Method.

$$P_f = P_p + (I_a \times N)$$

Where, P_f = Future population.

P_p = Population of previous decade.

I_a = Average increase in population per decade. N = No of decade

ii. Geometrical Increase Method.

$$P_f = P_p (1 + R_a)^N$$

Where, P_f = Future population.

P_p = Population of previous

decade. N = No. of decade.

R_a = Average rate of increase in population per decade.

iii. Incremental Increase Method

$$P_f = P_p + N \left\{ I_a + \left[\frac{(N+1)}{2} \times I_{ai} \right] \right\}$$

Where, P_f = Future population.

P_p = Population of previous decade.

I_a = Average increase in population per decade.

I_{ai} = Average incremental increase in population per decade. N = No. of decades.

SPA area mainly includes Forestland owned by Govt. of Maharashtra and some pockets are privately owned. The SPA area is scattered across the Navi Mumbai project and there is no revenue gaathan or any revenue settlement within the SPA area. Hence, there is no previous census record of the population available for the SPA area. In the northern area slum/ illegal settlement in a very small portion of forest land in SPA boundary is observed. As per NMMC report population of Dighe slum (in the SPA area) in 2015 was approximately 2290 and it increased by approximately 3500. This encroached settlement in Forestland cannot be considered for future projection. NMMC is the urban local body for land parcels of the SPA area in Thane Tehsil. Therefore, urban local body took care of the resettlement of slums through various government programs in their area. Hence as described in the manual such population projections are not fit for the SPA area.

Therefore, the proposed population will be analyzed in the tabled potential land and adjacent to the developed node of Navi Mumbai have the potential and cater to the future population of Navi Mumbai. A major portion of Karave Island will be suitable for proposed development due to terrain conditions and the decongesting population of Navi Mumbai in this area due to connectivity with NMMC. As per URDPFI guidelines (2015) published by the Ministry of Urban Development, the density of Metropolitan cities is 125 to 175 per person per Ha. (PPH). Accordingly, the total developable area is approx. 21 Ha. Hence, the population may be accommodated approximately 2625 to 3675 persons. Hence maxi. The projected population is approx. 4,000 persons may be considered.

10.5 Proposed Land Use Zoning

Important considerations for the proposed land use zones in the SPA area are as below:

- Major land in the SPA area is under forestland with hilly terrain.
- Some of the private lands at village Jasai, Padeghar and Chanje are also under hilly terrain.
- Private lands at Village Karave are affected by CRZ. The affected portion is proposed under no development zone and the rest of the lands are under the Residential zone.
- Logistics/Warehousing activities at Village Padeghar and Vahal.
- Navi Mumbai International Airport.



- Jawaharlal Nehru Port Trust (JNPT)
- Growth Centres are proposed in the adjoining NAINA SPA area adjoining to Pocket B.
- MIDC (IIA) project adjoining to Pocket B.
- Major Transportation networks passing through the SPA area.

The table below gives the breakup of the proposed land use distribution in the SPA area:

10.5.1 Regional Park Zone (RPZ)

This zone constitutes a major portion i.e. 91.87% of the total SPA area. Navi Mumbai Development plan comprises different zones out of which the Regional Park Zone is a zone in which most of the lands are undeveloped because of hilly terrain and Forest. Regional Park Zone (RPZ) pockets within SPA areas beneficial to preserve dense tree cover and hill tracts. This extensive forest cover in the Thane District of the SPA area around the urban agglomeration shall be conserved according to strict laws, regulations and guidelines. To explore the flora and fauna, inhabiting the forests and urban forest parks, in the Navi Mumbai, Urban forest parks shall be created to provide a thriving habitat for many species of animals while promoting green cover. The myriad attractions of nature in the form of national parks, urban forest parts and exotic ecotourism destinations beckons visitors to spend time in nature and truly rejuvenate, breathing fresh air and witnessing the verdant greenery.

10.5.2 Industrial (Warehousing) Zone

This zone constitutes 1.76% of the total SPA area. Industrial and warehousing activities are observed in villages Padeghar and Vahal. Proposed under Industrial (Warehousing) land use. The SPA area at village Padeghar and Vahal has having locational advantage as it is along JNPT road and MTHL is landing at Village Chirle. The Integrated Logistic Park project is adjacent to Village Padheghar, Jasai, Vahal and Chirle. MMC is also passing through these villages. Once Navi Mumbai International Airport is developed, it is going to trigger the growth of this area.

10.5.3 Residential Zone

This zone constitutes a portion of 1.18% total SPA area. Part of Karave village has plain/tableland. Hence pockets outside the CRZ boundary are considered for development. The residential zone is generally proposed to accommodate the projected population. Also, social amenities and utilities are proposed in it.

10.5.4 No Development Zone

This zone constitutes a portion of 0.87% total SPA area. This portion of the Karave area comes under the CRZ area. As approved by CZMP 2019, the 50 m belt from HTL is considered a "No Development Zone" to protect the environment.

10.5.5 Transportation

The transportation network in the area includes the land that is under reservation for transport-related proposals only. The total area proposed under transportation land use is 2.57% of the total SPA area. The land is under reservation of Multi Modal Corridor (MMC) Virar to Alibaug and part of MTHL road. Alignment of the proposed bullet train and proposed Airoli – Katai road passes through pocket A. Also road widening of existing National Highway in pocket B.

10.5.6 Water Body

One waterbody is seen at the hill of Village Dighe which is known as Mogliche Dam. Mogliche Dam is also known as Khandicha Lake. This is the only water body existing in the SPA area. The area of the water body is approximately 3.66 Ha., which is 0.21% of the total SPA area.

10.5.7 MIDC – IIA Area at Padeghar

MIDC vide its notification no. MIDC/IIA/A21886/2022 dated 19th January 2022 has notified an industrial area at village Padeghar as the Integrated Industrial area (IIA) and MIDC has become the Special Planning Authority for that Integrated Industrial area (IIA). As per Govt. the notification dates 26th November 2023 published in the Gazette in which some survey numbers of Padeghar have been included in IIA. Area of survey no. 130/3 (13D/3 new) is changed and ceases the power of CIDCO as SPA as mentioned in this notification.

10.6 Social Amenities

One of the main functions of the Development Plan (DP) is to designate land for public purposes. Transport, education, healthcare and recreational open spaces are the principal components of public purpose for which land has to be designated in DP. Traditionally planning norms/standards in terms of area required per thousand or per lac of populations have been used for this purpose.

10.6.1 Planning Norms:

For assessing the requirement of social and physical infrastructure for the proposed population, the spatial norms have been laid down in various documents by different agencies. To adopt the most appropriate norms for the SPA area, the requirement of facilities in the form of norms, standards and guidelines were referred from various sources i.e. Government Resolution 1979 of Government of Maharashtra, UDPFI guidelines -1996 and revised URDPFI -2014 (final version of URDPFI Guidelines).



Type of Facility	Facility	Standards	
		1 for Population	Area(Ha)
Educational Facilities	Balwadi/ Creche	12000	0.05
	Primary & Secondary School building (S)	10000	0.40
	School Play Grounds (SPG)	10000	0.60
	Colleges (C)	125000	1.00
	Professional Colleges/ Technical College	125000	2.00
Health Facilities	Clinic	10000	0.06
	Dispensary/Primary Health Centre (PHC)	25000	0.15
	General Hospital (GH)	100000	0.50
	Super Speciality Hospital	250000	2.00
Social And Cultural Facilities	Library	10000	0.05
	Multipurpose Hall	10000	0.20
	Health Club & Gymnasium	10000	0.10
	Community Centre (CC)	100000	0.20
	Religious	10000	0.15
	Working Women's Hostel	100000	0.30
Market / Daily Bazaar	Market / Daily Bazaar (DB) It includes: Vegetable/Fish/Meat Market Rationing / Kirana/ Retail Shops/Flour mills Milk Booths, Personal Service Establishments, Post Office etc.	10000	0.10
Public Facilities	Fire Brigade and Allied services (FS)	200000	1.00
	Burial/Cremation Ground (BG/C)	500000	4.00
	Police Station (PS)	100000	1.00
Open Spaces/Park	Parks (P)	10000	3.00
	Playgrounds (PG)	10000	4.00
	City Park (CP)	500000	50.00

Table 2 - Planning norms adopted for SPA area

10.7 Development Control and Promotion Regulations:

The Unified Development Control and Promotion Regulations give the zoning as well as building regulations for all developments falling in the area under SPA jurisdiction. UDCPR will be applicable to the whole SPA area. The proposal will be sent to the Urban Development Department GoM to incorporate the applicability of the CIDCO SPA area in Unified Development Control and Promotion Regulations (UDCPR-2020)

10.8 Environmental conservation, projection of Ancient monuments and Heritage structures:

Dronagiri Fort is located in the Raigad District of Maharashtra on the top of a hill, which is close to Uran Town.

10.8.1 Proposal for conservation of the fort:

The fort should be easily accessible from the proposed halts. The spaces should be easily accessible by foot to save time. This would help to explore the place without any difficulty. The following activities are proposed:

- a. Conservation of Fort
- b. Entrance Avenue: At the base of the hill, the space should be reserved for administrative purposes and an archaic gallery.
- c. Trekking routes can be explored and promoted by providing connectivity to the base.
- d. Camping site at the top of the hill.
- e. Information Kiosks: The Forest Department should create kiosks at nearby railway stations, and bus stations to provide information to tourists on an interactive basis with a link to the Dronagiri Fort tourism portal.

Provision for night stay, camping, food and other activities during the trek can be the main selling features. The local villagers may be employed as trekking guides and in setting up wayside amenities and homestays.

The above-mentioned attractions can be clubbed together holistic manner to work as a 'lifetime experience' for any tourist. One of the most important things in the process would be to monitor waste generated by people, its collection and transportation. Protection of natural vegetation, resources and water bodies will be on priority. Fort may be preserved with respect to parameters and guidelines of the Archeological Department of INDIA (ADI) and Maharashtra Tourism Development Corporation (MTDC)

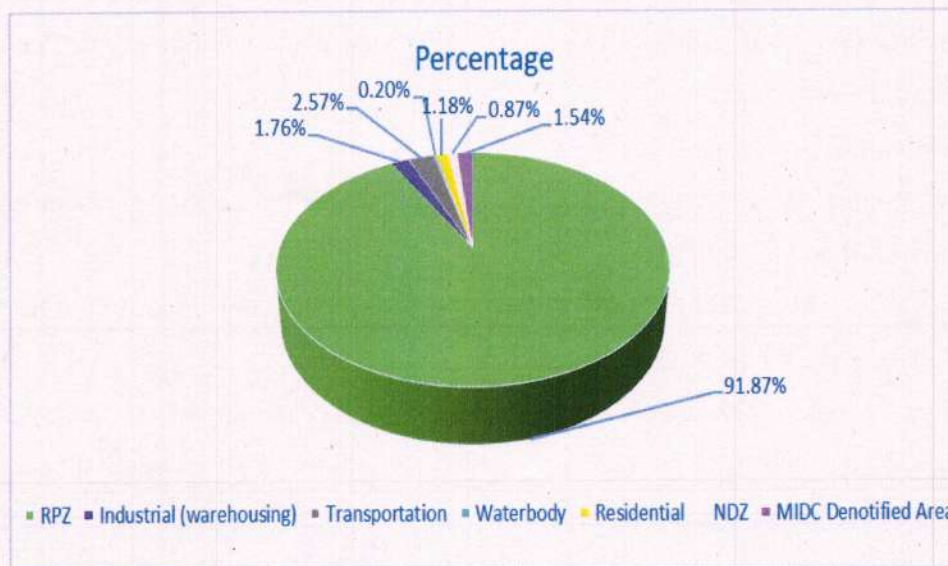
Table 2 - Land Use Classification of DDP

Sr.No	Land Use	Area in Ha.	% with develop area	% with gross area
	1	2	3	4
1	Residential	21.03	21%	1.18
2	Industrial	31.34	32%	1.76
4	Transportation	45.85	47%	2.57
	Sub Total	98.2	100%	5.5%
5	Waterbody	3.66		0.21
6	No Development Zone	15.42		0.87
7	MIDC IIA SPA Area (Denotified Area)	27.5		1.54
3	Regional Park Zone	1636.87		91.87



Sub Total	1683.45	94.49
Gross Total	1781.67	100

Figure 28 - Proposed Land use Distribution in Development Plan



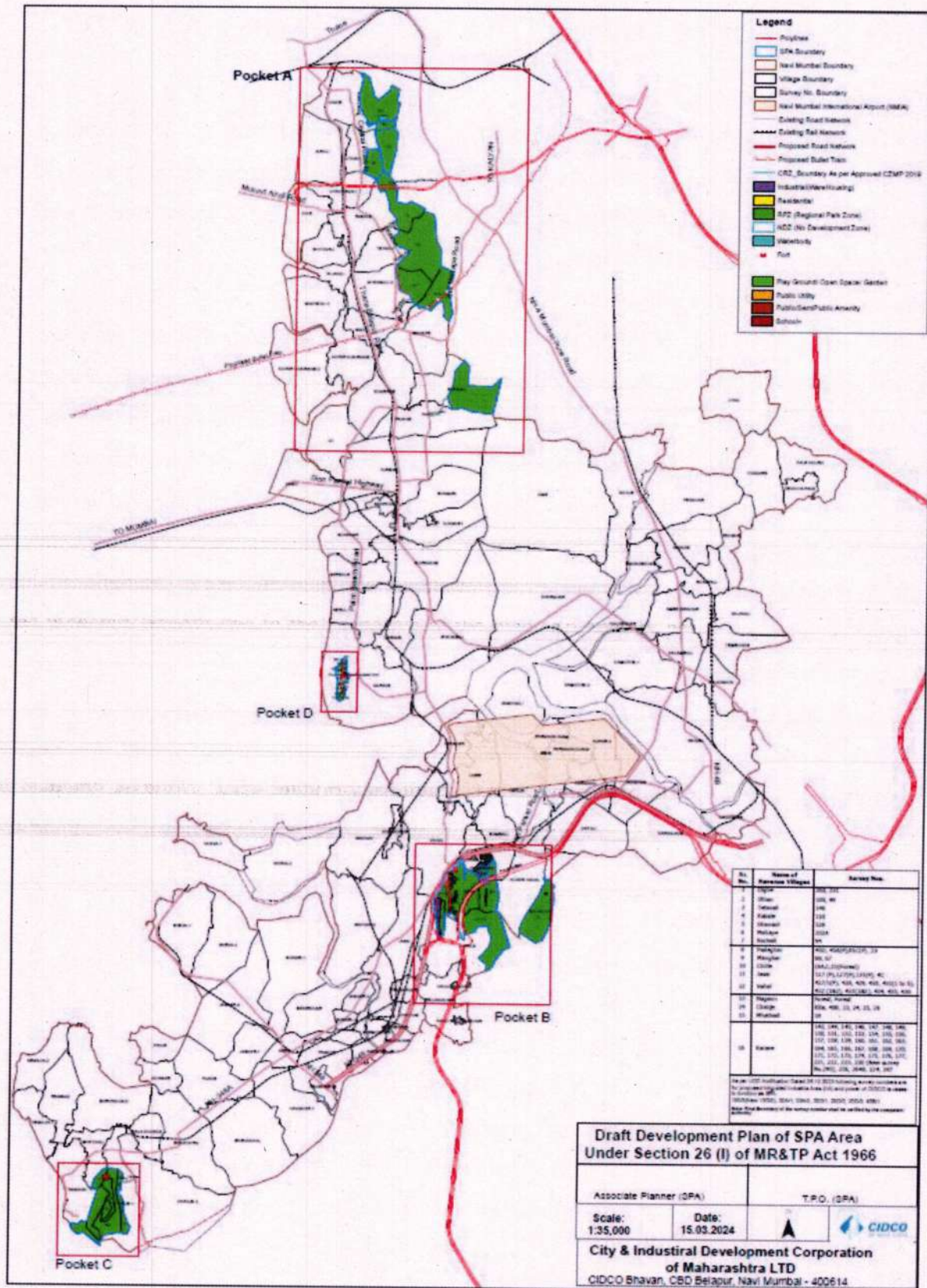


Figure 29 - Proposed Land use Map of SPA Area



CHAPTER – XI DEVELOPMENT PLAN COST AND FINANCING

11.1 Introduction

This Chapter deals with the block cost estimates for various components of the Development Plan, the Phasing plan and also likely sources of revenue. The block estimates include the block costs of development for Social Facilities and Reservations, Transportation Infrastructure, Water supply Infrastructure, Sewerage Infrastructure, Storm Water drains and Solid waste management.

The Draft Development Plan of SPA area indicates broad land use zoning along with the development plan roads and reservations for essential social and utility plots. The said zoning proposals will only be used as guidelines for regulating development within the framework of the development control regulations prepared for the region. The success of the plan depends on the manners in which it is to be implemented. It is found to be very difficult for any planning authority to finance and implement the Development Plan. Hence there is a need to encourage the developer to participate in the development process through various incentives at the same time share the expenditure and the monetary benefit due to the proposals of the plan. An attempt has been made in this direction to enhance the project viability.

The road widening for existing roads, proposed new road linkages and the reservations, sites earmarked for providing amenities and services etc do impose a specific responsibility over the planning authority/ special planning authority, local authority/institutes/ Trusts concerned. The land under the reservation is subject to the acquisition by the concerned bodies or the trust and institutes.

11.2 Development Plan Cost

10.2.1 Assumptions for calculation of land cost

The Annual Schedule of Rates (ASR) of lands for the year 2023-24 have been considered for arriving at the average cost of acquisition for various calculations. The Ready Reckoner rate for Karave village for the Project Area for the year 2023-24 is considered as Rs.3500 per sq.m. and accordingly the cost of acquisition for development of infrastructure comes to 4 times Rs.14,000 per sq.m (as per LARR 2013). The Cost of acquisition for 1 hectare of land is assumed as Rs.14.00 crores per hectare. Total land approx. 11 Ha. area required for infrastructure, amenities and facilities. Hence total acquisition cost of land approx. Rs. 154 Cr.

10.2.2 Construction costs for buildings

The average construction cost for various buildings required to house the physical and social infrastructure are based on the ASR rates published by Departments of Registration stamps for year 2022-23 is 26,620 and for year 2023-2024 escalated by 7% year on year for current rate. The average building costs are considered as 28,483/- per sq.m. Accordingly construction cost of public utilities and amenities comes for areas of 2.4 Ha is Rs. 68.35 Cr.

10.2.3 Construction cost for infrastructure

In the Draft Development Plan of SPA, there are existing State Highway / National Highway. The proposal of widening of these roads is expected to be implemented by concerned State/Centre Govt. Authority. Also, proposed MMC corridor, Proposed Katai – Airoli Road and proposed bullet train shall be developed by concerned authorities. The rest of the DP roads proposed in the Development Plan will have to be developed by Planning Authority. The SPA area is adjacent to NMMC area and NMMC has already developed their own water supply network. Hence, water is taken from NMMC and CIDCO will developed water supply network in proposed developed area. The area under DP Road is approx. 2.0 Ha. The average construction cost for infrastructure are based on the basis of Engineering analysis is comes approx. Rs.1,56,115 per running meter including road, water supply and drainage line in proposed development area. Hence the development cost of infrastructure comes 31.22 Cr.

10.2.4 Summary of block costs

The total cost of Development comes to Rs. 253.57 crores and includes the Infrastructure Development costs for the horizon year of 2041 and reservations (Social facilities) Development costs for the horizon year 2031.

11.3 FINANCING THE DEVELOPMENT PLAN

11.3.1 Revenue generation

Since the planning authority has decided to acquire only the land under the essential reservations and not any other land for commercial exploitation the revenue generation to meet the project cost has become difficult. It is a known fact that to implement the proposals of development plan there is always a scarcity of funds and one has to be depend upon finance from governments and financial institutes to meet the viable gap between revenue generation and the expenditure to be incurred. Efforts have been made to meet both the ends by various mean to raise the resources.

Sources of revenue for SPA shall be from the following:

- I. **Land Linked Premium:** The prevailing base FSI for SPA Area were entitled to base FSI of 0.2 which could be enhanced to 0.5 on payment of premium while on the other hand



other developed were having a base FSI of 1.1. In order to normalize a basic permissible FSI to 1.1 across adjacent developed area of Karave village, it is proposed to levy a land linked premium @ 5% of ASR on the entire land area while granting the development permissions. This will compensate for the sources for generating revenue for Infrastructure development. For 21.0 ha. Developed land, get a revenue around Rs. 3.67 Cr.

- II. **FSI Linked Premium:** The DCPR proposes a basic permissible FSI with payment of Land Linked Premium as 1.1. This FSI can be enhanced to the permissible Maximum Building potential on plot as per UDCPR for 20.0 m road comes 3.0. This Maximum Building potential on the plot could be achieved with a combination of additional FSI on payment of Premium as also through TDR loading. The premium for the Residential land uses is proposed as 40 % of the ASR and for Commercial land use the same is proposed as 50% of the ASR rate. This will generate around Rs. 36.01 Cr.
- III. **Development charges:** As per Section 124A of the MRandTP Act 1966 a Planning Authority is empowered to levy, assess and recover the Development charges that arise due to development of physical and social infrastructure. This development charge is levied on the institution of use or change of use of any land or building, or development of any land or building, for which permission is required under this Act at the rates specified. The development funds generated through the above charges shall be utilised for off- site infrastructure development. This will generate around Rs. 4.04 Cr.
- IV. **Disposal of Social Facility plots:** Around 5% of the land coming for development is available to the Planning Authority as Social Facility plot. In order to encourage and catalyse development of social facilities and amenities, these plots shall be disposed to the concerned institution/ organization on long term lease as per the Land Disposal Policy of CIDCO and considering CIDCO's reserved price for node. This will generate around Rs. 27.04 Cr.

The total estimated revenue is Rs. 70.77 crores. The summary of the Estimated Revenues is shown below

Table 3 - Summary of estimated revenues

Sr.No.	Source of Revenue	Estimated Revenue in Rs.Cr.
1	Land Linked Premium	3.67
2	FSI Linked Premium	36.01

3	Development Charges	4.04
4	Sale of Amenity Plot	27.04
Total Estimated Revenues		70.77

11.3.2 Infrastructure development charge

It can be seen from the above table that it is not possible to recover the entire expenditure on the development of infrastructure in the planning area by way of the measures explained above. There is a gap of about Rs. 182.79 Crores. This gap can be bridged by way of levying the IDC @ Rs. 8,700.00/m² on developed land. This cess can be worked out telescopically depending upon the investment in infrastructure development.



CHAPTER XII IMPLEMENTATION OF THE DEVELOPMENT PLAN

12.1 General

This draft Development Plan is prepared for the horizon year of 2044 and contains land use zoning proposals for a projected population of 4,000 for the said year. This aspect is well taken care of in this Development Plan and provisions made in this regard will lead to better, satisfactory and remarkable implementation of the Development Plan. The analysis in this regard, is enumerated in the following paragraphs.

There are mainly three components that constitute the implementation of the Development Plan.

1. Zoning.
2. Road Network.
3. Sites for social amenities and public utilities.

The land use zoning is provided in the plan. As development progresses, it is guided by these proposals and no financial aspect is involved in this implementation. The land under proposed roads is to be acquired but much of the land can be obtained through approval of layouts in residential zone. Some road lands will need to be acquired independently. However, the problem is more serious with the acquisition of land under sites reserved for social amenities and public utilities. There are four ways to acquire such land i.e.

1. Through Town Planning schemes (TPS),
2. Acquisition through monetary compensation,
3. Development of reservation through accommodation reservation principle (AR).
4. In lieu of transferable development rights (TDR).

12.2 Cost of development plan proposals

The total cost of Development works out approximately to Rs. 253.57 crores. These development costs can only be met by adopting the correct land development methods for the implementation of the Development Plan proposals. Some of the tools that could be adopted by the CIDCO SPA for land development are outlined below along with their relevance to the proposed Development Plan.

12.3 Town planning scheme

The basic concept of the T. P. Scheme is pooling together all the land under different ownerships for unified planning and thereafter subdividing and redistributing it to original landowners in a properly reconstituted form after deducting the land required for the open spaces,

social infrastructure, services, housing for the economically weaker section and road network. The reconstituted developed plots are allotted to the land owners in proportion to the value of their undeveloped land. CIDCO envisages implementing the proposals of the Development Plan by enabling the provision of Town Planning Schemes which will considerably reduce the liability towards the cost of acquisition of land required for social and physical infrastructure.

12.4 Transferable development right

Transferable Development Right means a development right to transfer the potential of a plot designated for a public purpose in a Development plan. It is expressed in terms of total permissible built space and is calculated based on the Floor Space Index or Floor Area Ratio allowable for that plot which can be utilized by the owner himself or by way of transfer by him to someone else from the present location to a specified area in the plan. This can be used as additional built space over and above the permissible limit in lieu of monetary compensation for the surrender of the concerned plot to the Planning Authority.

By providing incentive TDR through DCPRs provision, CIDCO SPA will be able to acquire the land under the reservations for spine roads and service roads at ease.

12.5 Accommodation reservation

This tool enables the development of Public reservations without land acquisition. In this concept, the Owner whose land is under reservation has to develop a certain percentage of land under reservation and surrender it to the Planning Authority. In lieu of this surrendered land, the owner shall be entitled to develop the remaining land under reservation for the uses permissible in the adjoining zone with full permissible FSI of the entire plot and permissible TDR potential of the entire plot.

12.6 Implementation through monetary compensation

Any land required or reserved for any of the public purposes specified in the draft Development Plan may be acquired by agreement that is by paying an amount agreed to the land owner (by way of private negotiations) or such land may be acquired compulsorily by the Planning Authority under the provisions of LARR Act 2013 by paying monetary compensation.

12.7 Implementation by public participation:

It is possible that instead of shouldering the entire burden of creation and maintenance of amenities by the CIDCO, this work may be entrusted to willing private and government institutions that are engaged in similar activities. The modalities can be worked out for such a



venture. Amenities like gardens, road street furniture, etc. may also be developed under this concept.

12.8 Need for monitoring:

At present implementation of the Development Plan is not monitored by separate cell though, it is of utmost importance. The creation of better amenities through the Development Plan enhances the quality of life of the citizens. Therefore, this aspect needs to be taken seriously. The aspects like types of amenities to be created immediately, course of action to be adopted for acquisition and development of reserved land, selection of the new road linkages to be taken on priority, augmentation of resources, etc. need to be monitored frequently and for that purpose, a devoted cell is required on a permanent basis.

12.9 Programming

In order to implement the Development Plan proposals in an orderly and systematic manner it is essential to adopt tools of Project Management during the construction and delivery of Infrastructure projects so that cost overruns and wasteful expenditure are avoided to conserve and properly utilize scarce financial resources. As a matter of rule, no project should be taken up for implementation on an ad-hoc basis but be based on programming utilizing Project Management tools and techniques. In other words, the successes of the implementation of the Development Plan proposals depend on Programming and Project Monitoring.

12.10 Conclusion

The development potential of the Draft Revised Development Plan 2024-2044 SPA area is certainly high from an environmental point of view. This Development Plan has many new provisions, which will give impetus to the development and steer the development in a proper way. Most of the area in CIDCO SPA covers hilly terrain and forest lands. The said pockets are proposed as Regional Park Zone and maintain an environment in the SPA area as well as for the adjoining Navi Mumbai project. Many provisions are introduced in this plan first time in the State and will be known for pioneering such provisions. Not only the provisions but also the implementation of the plan is of utmost importance. This Development Plan gives ways and means to implement it in a realistic way. This plan is simpler and understandable to the general public. There is no doubt that this plan will set an example in the State because of its uniqueness.



ANNEXURES

Annexures-1

Planning Norms.

Sl.No	Facilities	Comparison										Wajaj Nagar Project Draft Development plan			
		UDFPI					New UDFPI (2013)					1979 GR Norms			
		Popn	Area (sqm)	PCPP (sqm)	Area (sqm)	PCPP (sqm)	Popn	Area (sqm)	PCPP (sqm)	Area (sqm)	PCPP (sqm)	Popn	Area (sqm)	PCPP (sqm)	Area (sqm)
A	Social Amenities	2,500	800	0.32	5,000	200	0.04								
		100,000	2,000	0.02	100,000	2,000	0.02								
2	Facility center	15,000	2,000	0.13	15,000	2,000	0.13								
		Nil			Nil										
3	School	100,000	5,000	0.05	100,000	5,000	0.05								
		5,000	2,000	0.40	5,000	2,000	0.40								
4	Higher Education	125,000	40,000	0.32	100,000	50,000	0.50								
		1,000,000	40,000	0.04	1,000,000	60,000	0.06								
5	Health Facilities	15,000	800	0.05	15,000	800	0.05								
		250,000	80,000	0.34	500,000	60,000	0.12								
6	Community hall	100,000	37,000	0.37	100,000	37,000	0.37								
		Nil			Nil										
7	Hostels	Nil			1,000,000	1,000	0.00								
		Nil			1,000,000	40,000	0.04								
8	Social Cultural centers	Nil			Nil										
		Nil			Nil										
9	Daily Bazaar/ Market Complex	Nil			5,000	150	0.03								
		Nil			500,000	1,500	0.00								
10	Weekly Markets/ Merchant's Markets	Nil			100,000	4,000	0.04								
		Nil			Nil										
B	Public Utilities	90,000	15,000	0.17	50,000	3,200	0.06								
		200,000	10,000	0.05	100,000	10,000	0.10								
11	Fire station/ Police station	500,000	5,000	0.01	500,000	40,000	0.08								
		Nil			Nil										
C	Parks and Play Grounds	Play fields mentioned along schools			5,000	15,000	3.00								
		10,000	100,000	10.00	10,000	100,000	10.00								
16	Parks and open spaces	City level open space/Park			1,000,000	1,000,000	1.00								
		Sub Total			16.00										
D	Per Capita Space Required	Social Amenities			2.35										
		Public Utilities			0.23										
	Parks and Play Grounds				10.00										
		Total			12.50										



Annexure-2 –


Statement showing list of Reservations for amenities and their cost of Acquisition and Development


Sr.No.	Reservation. No.	Purpose of Reservation	Village	S.No./ G.No./C.T.S. No./F.P.No. (part or whole)	Area (Ha)	Land Ownership (Govt. /MC/ Private)	Cost of Acquisition (Cr.)	Cost of Development (Cr.)	Total Cost (Cr.)	Acquiring Authority
1	1	Garden	Karave	143, 144, 168	2.61	Private	154.00	99.57	253.57	CIDCO
2	2	Public Utility		145, 146, 166, 167, 168, 169	1.0	Private				
3	3	Public Semi Public Amenity		146, 147, 165, 166	1.0	Private				
4	4	School		152, 153, 162, 221	0.47	Private				
5	5	Playground		152, 153, 221, 161	0.54	Private				
6	6	Openspace		153, 154, 155, 156, 158, 157, 222, 161	4.14	Private				
7		Road		153, 161, 152, 162, 150, 222, 151, 163, 149, 164, 147, 165, 146, 166, 167, 168, 169, 172, 173, 174, 221, 223.	2.0	Private				



**LIST OF MEMBERS WORKED ON THE DRAFT DEVELOPMENT
PLAN (DDP)**

Sr No.	Name	Designation
1	Shri. Ravindra Kumar Mankar	Chief Planner
2.	Shri. K. V. R. K. Ravikumar	Ex-Chief Planner (DP)
3.	Shri. Jagdish Patil	TPO and Senior Planner (DP)- I/c
4.	Dr. P. T. Gedam	Senior Planner
5.	Shri. Ashitosh Nikhade	Senior Planner
6.	Shri Priyadarshan Waghmare	Associate Planner (DP/SPA)
7.	Smt. Swati Pohekar	Associate Planner
8.	Smt. Ashwini Shinde Kadam	Associate Planner
9.	Smt. Deepti Naik Nimbalkar	Associate Planner
10.	Smt. Vibhavari Turkane	Associate Planner
11.	Shri. Prakash Sanap	Deputy Planner
12.	Shri Rohit Hivarkar	Deputy Planner (C)
13.	Smt. Sonali Salunkhe	Deputy Planner (C)
14.	Shri. Sunil Patil	Draughtsman
15.	Shri. Fulchand Hambir	Low Grade Steno
16.	Shri Dhiraj Madhvi	Clerk Cum Typist(C)
17.	Shri. Ganesh Koli	Peon (C)


Priyadarshan T. Waghmare
 Associate Planner (DP)
 CIDCO Ltd. Navi Mumbai


Jagdish B. Patil
 Senior Planner (DP) &
 Town Planning Officer (SPA)
 CIDCO Ltd. Navi Mumbai



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