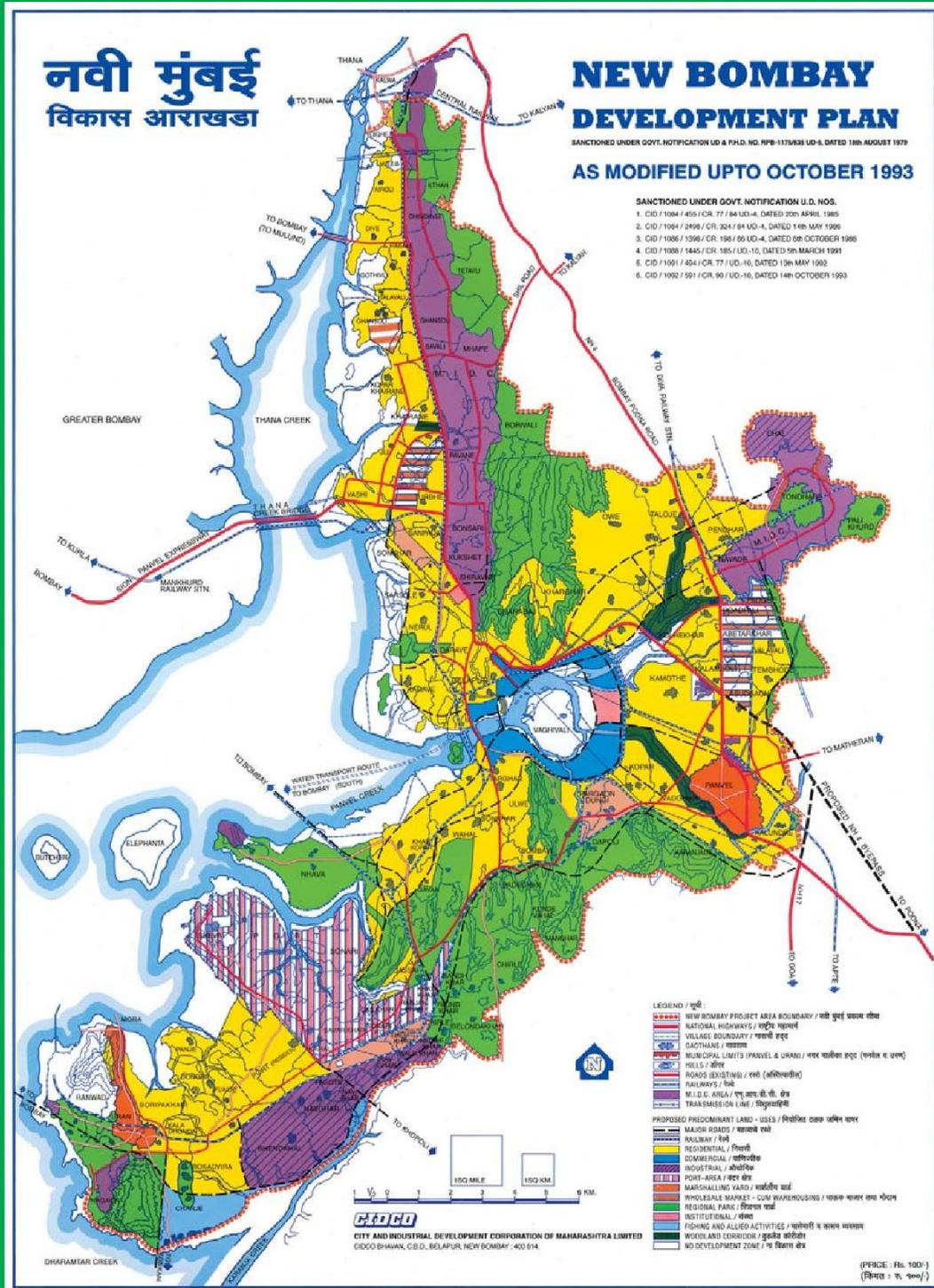


Report on GREENS in Navi Mumbai

for
PARYAVARAN PURASKAR



City & Industrial Development Corporation of Maharashtra Ltd.

CIDCO Bhavan, CBD Belapur, Navi Mumbai 400 614.

Report on GREENS in Navi Mumbai

for

INDIRA GANDHI PARYAVARAN PURASKAR

(Prescribed format for Nomination)

1. Name and address of the nominee / organisation	:	City and Industrial Development Corporation of Maharashtra CIDCO Bhavan, CBD Belapur, Navi Mumbai - 400 614.
2. Name of the proposer	:	–
3. Age of the nominee (in case of individual)	:	–
4. Present employment of the nominee (in case of individual)	:	–
5. Type of organisation (in case of organisation)	:	State Government Undertaking
6. Details of previous award received (if any)	:	Around 700 awards from 'Friends of Trees' - NGO actively involved in creating awareness about environemnt.
7. Details of significant contributions made by nominee / organisation proposed	:	Enclose at page no. 5 to 9
8. Details of funds received during the last 3 years prior to the year of nomination	:	175 lacs – 2001-2002, 83 lacs – 2002-2003 52 lacs – 2003-2004 175 lacs – 2004-2005

The nominations may kindly be sent in hard copy or through e-mail to:

Shri Sudhir Mital
Joint Secretary

Ministry of Environment and Forests
Room No. 414, Paryavaran Bhavan,
CGO Complex, Lodi Road,
New Delhi - 110 003.
E-mail: metal_sudhir@nic.in

PROJECT REPORT ON GREENS IN NAVI MUMBAI

A. Name and address of the nominee

City and Industrial Development Corporation of Maharashtra Ltd.
CIDCO Bhavan, CBD Belapur, Navi Mumbai - 400 614

B. Area of work

1. About CIDCO

On 17th March 1970, The City and Industrial Development Corporation of Maharashtra Ltd. was formed under company act, with a vision to develop new urban habitats in the state of Maharashtra.



CIDCO being the organisation primarily engaged in the field of urban development, works in two capacities depending upon the project. First is New Town Development Authority and second is Special Planning Authority. As a New Town Development Authority, CIDCO has planned & successfully implemented for the new town of Navi Mumbai which is the largest new township spread over 344 sq.km. Apart from Navi Mumbai, CIDCO is new town development authority for various new towns in Maharashtra. As a Special Planning Authority, CIDCO has successfully completed the work of preparing a master plan for Vasai Virar Sub Region as one of the largest projects.

Since CIDCO is dealing with new towns or extension of existing towns, the scale of work is comparatively very high to any other organisation. CIDCO is also vested with implementation powers, the plans prepared for future do not remain only on paper but also get implemented effectively on site. In these aspects, the magnitude of work of CIDCO and its effect on general public is immense. Though care for environment is followed in all the departments of CIDCO, two departments are actively working for it.

2. Planning Department

Planning department takes care to earmark environmentally sensitive areas and decide the future plans for the same. It also earmarks greens for active as well as passive recreational purposes within the developable /residential areas.



CIDCO had been a step ahead earmark two ecologically important areas namely hill slopes and creeks are already earmarked as Regional Park Zone (RPZ) and No Development Zone (NDZ) in the Development Plan prepared in 1973, much before 1986, when Environment Protection Act came in force. These zones are unchanged irrespective of several modifications carried out till date.

The 'Green' areas are then realised on ground by Horticulture Department.

3. Horticulture Department

Apart from developing the greens and maintaining the same effectively for years, the Horticulture Department has been involved in various greening drives and activities to make people aware about the importance of preserving ecology.

The Horticulture Department has a strength of 45 people, who love their greens. They are knowledgeable about the details. Preserving existing vegetation and development of new gardens are primary tasks of the department. Shifting of trees instead of cutting (as per the law), ceremonial plantations, with public participation, plantation before every monsoon, distribution of saplings to public, care taking of gardens are ancillary works. To contribute to the greening on a sustained basis, CIDCO has developed three big nurseries at Khanda, Panvel & CBD Belapur in Navi Mumbai.

The horticulture Department has won around 700 prizes in various competitions in different categories. The awards at Friends of Trees' events (The leading NGO) was a significant achievement. Awards for garden beautification also justify the qualitative achievements.

4. Green Team

A team of Officers from Planning and Horticulture Departments was created to work dedicatedly for conserving and developing greens. In case of Navi Mumbai, more than half of the area of the project is for open to sky users. The Green team prepares plans for these areas and ensures qualitative execution of the same on site. Master plan for Greens for entire Navi Mumbai is prepared by the Green team apart from preparing details plans for other hierarchy of open spaces.

C. Creating awareness for the environment conservation

Apart from core activities, CIDCO has been organizing various activities for environment upgradation and spreading the knowledge to the society regarding the environmental issues. CIDCO has always been taking a proactive role the cause of environment. Some of the major events organised by CIDCO are as under:

1. Vriksha Dindi (Tree Procession)

CIDCO had organised a massive tree procession called Vriksha Dindi in 1998. Total 20 number of schools, 50 NGOs and some Corporates also participated in event. Around 10 Km long human chain was formed on this occasion. Total of 21,000 students and other people gathered to show their solidarity to the cause of environment protection. The event was a great success with a overwhelming participation from the public.



2. First flower Show

CIDCO organised first fruits, Vegetable & flower show in Navi Mumbai in 1999. Around 120 organisations and nurseries apart from number of individuals participated under 25 categories. Needless to mention that the show inspite of the first in Navi Mumbai was a huge success. This was the first of its kind show in Navi Mumbai inaugurated by the then Miss India Ms. Yukta Mukhi. The prizes were distributed by the hands of then Chief Minister of Maharashtra Mr. Narayan Rane. Around 44 trophies were distributed in the name of Chief Minister of Maharashtra, Governor, and Chairman of CIDCO etc.

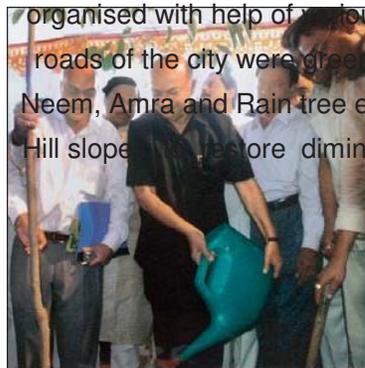
3. Mass Tree Plantation Programme

A mass plantation drive was organised in year 2002 by the hand of then Chief Minister of Maharashtra Shri. Vilasrao Deshmukh. Various NGOs, Corporations and local organizations participated in this event. Around 10,000 trees were planted. A large stretch of road (8 Km) was greened under this drive.



4. One Lac Trees Plantation Drive

During last monsoon, CIDCO launched a huge plantation drive in Navi Mumbai. Hon. Chief Minister of Maharashtra Shri. Sushilkumar Shinde inaugurated the drive by plantation of a 'Bakul' tree. This drive was

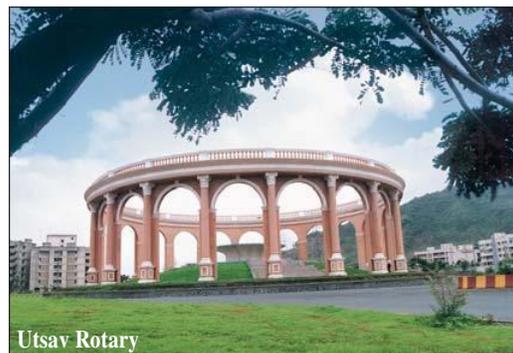


organised with help of various social and educational organisations. Major roads of the city were greened with their name specific species like Palm, Neem, Amra and Rain tree etc. The major thrust was also on plantation on Hill slopes to restore diminishing tree cover on the hills. Special kind of medicinal herbs

were also planted at Dronagiri hills.

5. Kharghar Node

Kharghar is one of the most beautiful and green node of Navi Mumbai. Broad avenues and well planned residential zones are silent feature of this node. We are going to develop a Central Park of 80 hectares based on the theme of Hyde Park, London. To add some fizz, two magnificent fountains have been constructed on rotary junctions of Kharghar,



named 'Utsav' and 'Shilpa'. Kharghar is surrounded by hills. We have specially planted lots of trees on these hills to convert them into green areas. Main road is developed with Rain Tree. The node is covered with different types of vegetation, depending upon the contact.



D. Significant contribution made by the nominee

It is difficult to single out a specific contribution as there are number of successful attempts to improve the environment, at a city scale. However, the most prominent efforts have been enlisted in the following paras.

(1) Caring for the environment

The care for environment is not only reflected in mere plantation of trees etc. but also on what is sacrificed to create better environment. In case of Navi Mumbai where the developable land is sandwiched between two ecologically important areas namely hill slopes and creeks, out of the entire Navi Mumbai project, almost 55% land has been earmarked for open to sky users. These users include ecologically sensitive areas, green areas within developable pockets and residential zones, areas for ponds to respect the natural water disposal system etc. CIDCO is self sustaining organisation



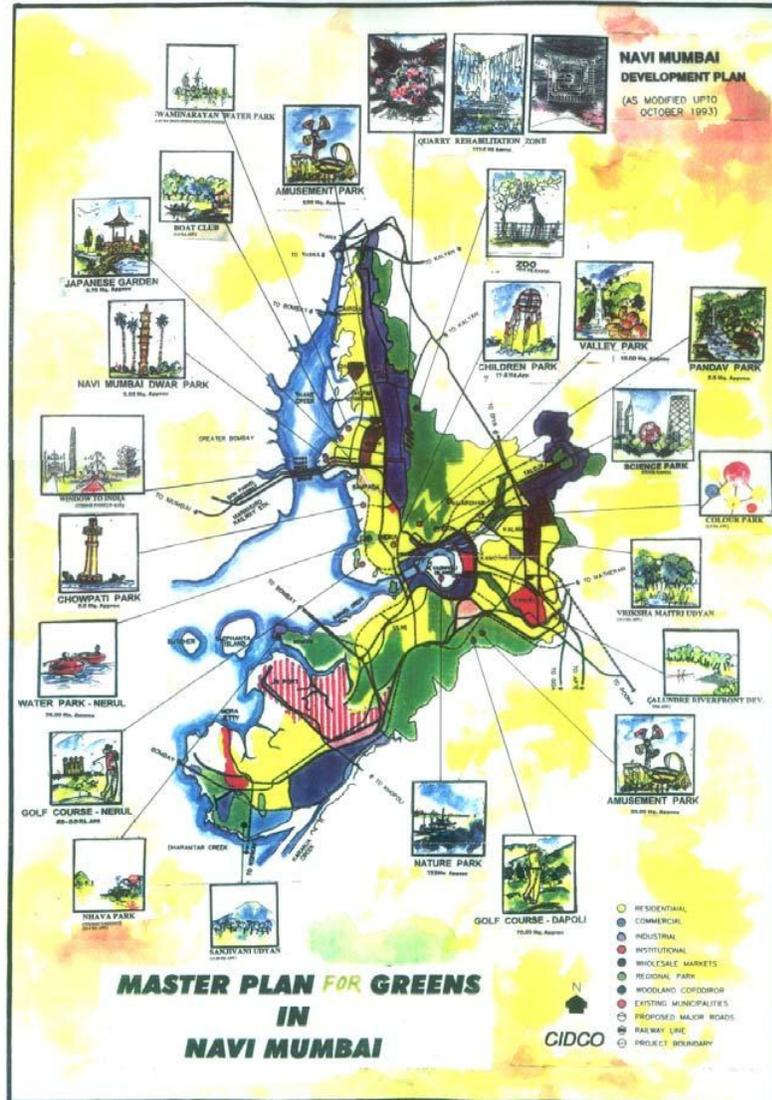
which runs as developing the land and selling them. Therefore land is the only resource for CIDCO. In spite of this fact, more than half of it has been dedicated only for caring of the environment. It may be noted that this was done way back in 1973, much before 1986, when Environment Protection Act came in force.

(2) Master plan for Greens

Making a master plan for city is not a new phenomenon. Master plans are being made for almost all the towns and nearby areas to control and direct the growth of the region.

In case of Navi Mumbai, we have been preparing development plans right from its inception.

However, this may be a first time that a 'Master Plan' has been made only for 'Greens'. This plan is dedicated to the 55% of the area which is reserved for open to sky users in Navi Mumbai



project. The plan deals with the environmentally sensitive areas like hill slopes, mangroves, areas under high tension lines, regional parks. An attempt has been made to interlink these areas with the green areas within the nodes so as to form a network of open spaces throughout the city. Under this plan, 25 theme parks have been identified which are dedicated to specific themes taking into consideration the existing attributes of the site, surrounding area and need of the city.

(3) Naming of roads after Trees

Care for nature is even extended into common man's life by introducing the system of naming of roads after the trees. The selected species of trees are planted along the main arterial roads of Navi Mumbai and the road is named after the same. A master plan of the same depicts the 8 main arterial roads in Navi Mumbai.

i) Palm Beach Marg

Palm Beach Marg is an internal urban expressway of Navi Mumbai. The main

objective of this road is to decongest traffic on Sion-Panvel expressway. This 9 km stretch has been greened with 3200 plants.



Royal Palm trees at centre. The embankment covered



with Bongan Villa on both rows and Rain drop & Peltaphorum trees on service road. This beautiful road has become the place of pride for the residents of Navi Mumbai.

ii) Rain Tree Marg

This 7 Km long stretch starts from Belpada Hill and ends at Tata Cancer Hospital. We have planted Rain Trees on both of the sides of this road. There are around 2500 trees.



iii) Amra Marg

This road starts from Uran phata and leads towards National Highway No.4. 2000 trees alongside of this road, have been planted.

iv) **Neem Marg**

The Thane-Belapur Road got the green cover of 2500 Neem trees last year. Neem trees are not conditioned to the ecology of Navi Mumbai. In spite of this fact we are doing our best to nurture these trees here. Mostly we have succeeded to survive them, irrespective of all odds, to gain the advantage of its medicinal properties.

v) **Jambhul Marg**

Jambhul is very famous fruit in Maharashtra. Birds too are fond of it. We planted around 3000 trees of Jambhul to serve interests of both, viz. human beings and birds. This road covers the distance of Turbhe to Vashi.

4. **Smriti Van**

It is a novel concept conceived by CIDCO to plant a tree in the name of departed persons. It got big response from people residing all over Navi Mumbai. People are open to plant any tree according to their choice. CIDCO maintains it thereafter. The name of the person is part as a nameplate with the tree. This project is setup at Khandeshwar near Panvel.



5. **Lands under HT line**

In most of the cities one can observe the unauthorised growth of slums in the areas under high tension lines. CIDCO has successfully turned the problem into resource. CIDCO has been allotting these areas to various institutions /organisations / individuals on lease basis for plantation of shrubs and plants. Being under control of these institutions, the unauthorised encroachments do not happen and the areas which otherwise would have been neglected are turning into greens.



6. Involving Project Affected Persons in the process

While developing Navi Mumbai, lands were acquired from the local villagers spread across 95 villages. These villagers were actively involved in the



process of urban development in general and environmental upgradation in particular. Adequate developed lands were returned in proportion to



the acquired land, which could help them in rehabilitation. In order to bring them into the mainstream of urban living, they were offered jobs in various capacities. The most effective absorption of project affected persons was in

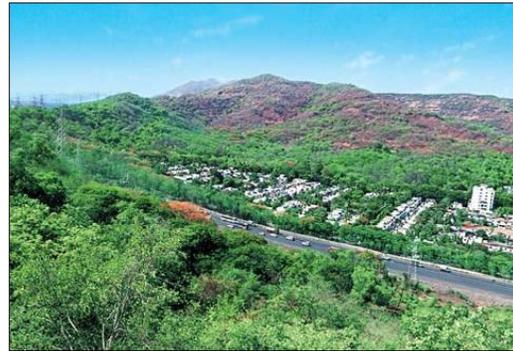
Horticulture Department where they were trained in horticulture works. The project affected persons who had the knowledge of horticulture works turned into horticulture contractors. Preference is given to them while awarding the works till date even after nearly 35 years.

Thus, it can be seen that we have been not only caring for the environment but also for the people who inherited these lands.

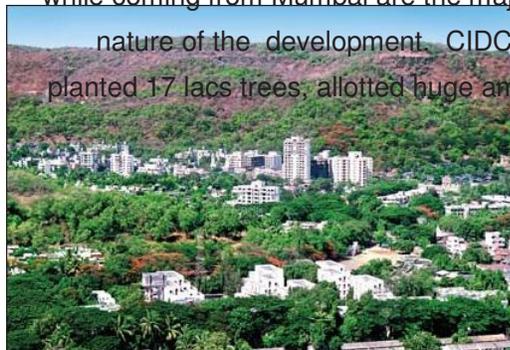


E. Measurable impact or likely impact of the nominee's work in the field of environment

The development undertaken by CIDCO is of such a large magnitude that measuring the impact of efforts made in the field of environment are simply unmeasurable. The mere scale of operation and innovative ways of improving environment continuously, makes it very difficult to ascertain or scale the impact.



However, barren hills turned into green, properly planned residential areas with well developed parks, gardens and totlots, meaningful usage of natural resources like hill slopes, development of greens in land under HT corridors instead of haphazard growth of slums, feeling of openness and difference in temperatures while coming from Mumbai are the major indicators of the environment friendly



nature of the development. CIDCO has already developed 175 gardens, planted 17 lacs trees, allotted huge amount of land under HT corridors and hill slopes for development

of greens.

F. Replicability

Thus the examples set by CIDCO by innovating various ideas right from involving project affected persons to utilising the land under HT lines are standing examples of transforming vision into reality, which could be replicated in new up coming townships and cities.

G. Innovativeness / creativity

Example of utilising the area under HT line for development of greens is enough proof of creativity. These kind of examples at city level apart, CIDCO has been innovative in turning problems into resources.

One small example lies in the story of Artistes Village, a small residential enclave. This area used to get flooded in monsoon season as it is nestled in the valley. The problem was studied and it was decided to form a detention pond at the base of the valley to release controlled flow of water. The pond not only solved the flooding problem but also became a tourist attraction. Since, the pond was made by digging the soil and the extracted soil was used for reclamation of low lying area.

Thus, while solving the problem of flooding, tourist attraction in the form of pond was created and extracted soil was used to reclaim the low-lying area; all by mere innovative thinking and creativity with win-win situation.

H. Target groups

As mentioned earlier, the intervention of CIDCO's works are on a large scale serving all sections of society and not specific groups. As far as age group is concerned, due care has been taken to provide totlots for childrens, playground and playfields for the youth, passive recreation areas and gardens for elders, promenades for joggers etc. Thus all the needs of the society are respected and due care has been taken to provide for the same.

I. Educative values

In order to spread awareness about greens and its importance in today's life, various efforts have been made to involve schools, educational institutes, NGOs, corporate bodies and general public in various programmes like 'Vriksha Dindi' 'Flower Show', & 'Mass tree plantation programmes'. Interest has also been created by inviting eminent personalities like Chief Minister of Maharashtra and other dignitaries.



J. Sustainability

Financial Aspects:

Since CIDCO works on self finance basis, the expenditure towards development of greens is already accounted for in the budget. The cost is recovered through saleable plots for other uses. Thus the environmental improvement works are automatically made financially sustainable.

Social Aspects:

The public at large is already involved in various capacities in the work of greening. Most of these areas are kept accessible to all class of people. There are hardly few exclusive areas which are not accessible to the people public. Therefore, the greening efforts are socially sustainable.

Ecological Aspects:

The ecologically sensitive areas are already identified under regional park zone and no development zone in the Development Plan of Navi Mumbai. The development plan cannot be easily modified. Thus, ecologically sensitive areas are conserved at macro level. The gardens, parks, totlots reservations which are at micro level are protected automatically as they are indicated on respective nodal plans. Thus, the greens which are formed to conserve and upgrade the environment are made permanent features of the city for ecological sustainability.



K. Summary

Today Navi Mumbai has become the planned city on model of sustainable development which fulfilled the mission of CIDCO i.e. to plan and create environment-friendly, model urban settlements with full-fledged physical and social infrastructure to meet residential, commercial and industrial need of population at present and in the years to come.

Various Type of Trees Planted in Navi Mumbai

- *Albizia lebeck*
- *Erythrina indica*
- *Samanea saman*
- *Cassia fistula*
- *Thespesia populnea*
- *Polyalthia pendula*
- *Casurina equisetifolia*
- *Peltophorum ferrugineum*
- *Acacia auriculiformis*
- *Terminalia catappa*
- *Bahunia Sp.*
- *Bombax malbarica*
- *Putranjiva roxburghii*
- *Pongamia pinnata*
- *Eucalyptus Sp.*
- *Spathodia campanulata*
- *Alstonia scholaris*
- *Anacardium occidentale*
- *Lagerstroemia Sp.*
- *Kigelia pinnata*
- *Gliricidia maculata*
- *Mangifera indica*
- *Ficus Sp.*
- *Delonix regia*
- *Eugenia jambolana*
- *Swietenia mahagoni*
- *Tabebuia rosea*
- *Tamarindus indica*
- *Neem*
- *Palm*
- *Jambhul*
- *Amra*
- *Behada-Hirda*
- *etc.*