

MALEGAON BK NAGARPANCHAYAT

Baramati Pune

ULB CODE 900752



REPORT 2022-23

33% GREEN COVER DEVELOP ACTION PLAN

MAJHI VASUNDHARA 3.0



ACKNOWLEDGEMENT

Thank you for all your wonderful contributions during our recent project work. It was really helpful to have your input, I really appreciate your guidance and I especially appreciate all of the time you've taken away from your own work to guide us and to ensure the work is completed in time.

Thus, we are grateful to **Smita Kale (Hon. Chief Officer)** for leading the passionate team. The important role played by **Mr. Vivek Hake (Nodal Officer)** in executing Tree Census project was essential and inputs received from him on various occasion was helpful, and thus we are thankful to him. We would also like to **thank Mr. Suresh Sawant (Supervisor) & Prof. R. B. Deshmukh (Tree Authority committee member)** for their regular inputs & support.

The project would not have been successful without sincere and dedicated field work carried out by all technical team including field officers. We place on record our sincere appreciation for all of them. We also thanked administrative team for supporting the project throughout its duration.

Thanking you,

For,

OM Enterprises

INTRODUCTION

The Glasgow Financial Alliance for Net Zero (GFANZ) was launched in April 2021 by Mark Carney, UN Special Envoy for Climate Action and Finance and UK Prime Minister Johnson's Finance Adviser for COP26, and the COP26 Private Finance Hub in partnership with the UNFCCC Climate Action Champions, the Race to Zero campaign and the COP26 Presidency. It mobilizes a coalition of leading net zero initiatives, representing 1,049 cities, 67 regions, 5,227 businesses, 441 of the biggest investors, and 1,039 Higher Education Institutions. These 'real economy' actors join 120 countries in the largest ever alliance committed to achieving net zero carbon emissions by 2050 at the latest.

The Paris Agreement is an international treaty signed by almost all countries in the world at COP21 in Paris in 2015. The Paris Agreement has a 'bottom-up' approach where countries themselves decide by how much they will reduce their emissions by a certain year. They communicate these targets to the UNFCCC in the form of 'nationally determined contributions', or 'NDCs'.

India is the world's fourth biggest emitter of carbon dioxide after China, the US and the EU. India emitted 1.9 tons of CO₂ per head of population in 2019, compared with 15.5 tones for the US and 12.5 tones for Russia that year. India has promised to cut its emissions to net zero by 2070 - missing a key goal of the COP26 summit for countries to commit to reach that target by 2050.

Prime Minister Narendra Modi made the pledge, the first time India has set a net zero target, at the Glasgow summit. Net zero, or becoming carbon neutral, means not adding to the amount of greenhouse gases in the atmosphere. The Indian leader is one of more than 120 leaders to have gathered in Glasgow for the two-week conference.

In Maharashtra, Through the Majhi Vasundhara Abhiyan, we built a culture of climate action amongst citizens, and at all levels of the government. By leveraging this collaborative culture, we are working with partners at the global level to further expedite the climate action agenda.

Through the participation in the race to zero campaign Malegaon Bk Nagar panchayat targeted to implementation of increasing our green area with increasing tree plantation. The main motive for tree planning is to neutralize carbon emission in atmosphere, trees are currently the most cost-effective and best technology for carbon removal and storage. Healthy forests also improve air and water quality, provide wildlife habitat, stabilize soils, provide opportunities for recreation and stimulate local economies. Hence, natural climate solutions have been overlooked by many NGO's, Public contributions, Industries, and social a forestation.

History of Malegaon Bk

Malegaon Budruk village in Baramati taluka of Pune district is the stronghold of Shambhu Singh Dhan Singh Jadhav Rao of Maratha dynasty Sardar Sindkhedkar Jadhav. Malegaon Budruk village is 11 km from Baramati town on Baramati-Nira road. When you enter the village, you get dressed. After entering, you reach "Shambhu Singh Maharaj High School" which means you come to the fort. The former is just the entrance, the rest is the entire school. There is a Shiva temple in front of the vese and in front of it are the tombs of members of the Jadhav family, including the tomb of Shambhu Singh Jadhav Rao. Behind the temple is Barav. A new palace has been built in Amarbag area of the village. The construction of this castle was done a hundred years ago during the British period. There are 2 full stone mansions. There is a temple in the middle of the castle. These are palaces with very handsome constructions. The feat of Dhanajirao of Raja Sindkhedkar Jadhavrao family is a golden page in the history of Marathas. After the death of Dhanaji Jadhavrao, his younger son Shambhu Singh was succeeded in AD. Got Mutaliki in 1710 under elder brother Chandrasen. Chandrasen was Shahu Maharaj's general after Dhanaji Jadhav Rao. Later, due to a rift between Chandrasen and Balaji Vishwanath, he went to Tararani's side. Shambhu Singh was offered the post of general by Ch. Shahuraj; But they rejected it. His half-brother Srijan Singh alias Santaji Mandve accepted it. They were not particularly powerful. He was stripped of that position because of his luxury. Later it got to Man Singh More. And later Khanderao Dabhade became the general of Shahu Maharaj. The first Shambhu Singh made a special effort to settle the civil strife between Ch. Sambhaji Raje and Ch. Shahu Maharaj of Kolhapur. A.D. He played the role of a mediator in bringing about the Treaty of Warna in 1731. For the campaign in 1733-34, Sripati Rao representatives, Fattlesingh Bhosale and Shambhu Singh Jadhavrao were appointed. There are records of Shahuraj praising him for his performance in this campaign. The charters granting them vassalage have also been published. A.D. In 1738-39 Shambhu Singh crushed the rebellion of a Karnataka chieftain named Virappa. Shambhu Singh was in Chimaji Appa's expedition to Vasai. A.D. In 1740 in Siroja near Bhopal, two brothers namely Chandrasen Jadhav on behalf of Nizam and Shambhu Singh Jadhav on behalf of Marathas faced each other in the war between Marathas and Nizam. Chandrasena was defeated. Shambhusinga made a special effort while fighting the fort of Trichanapalli. A.D. Shambhu Singh died in 1761.

Geography and Climate

Malegaon Bu. It is located at 18.47°N 74.6°E, about 514 meters (1,686 ft) above sea level on the west coast of the Deccan Plateau. Located at 9,000 meters (2,000 ft) above Baramati, the town is mostly flat terrain. Indian Meteorological Department Malegaon Bu. The climate is generally hot and dry with little rainfall in the area.

Economy

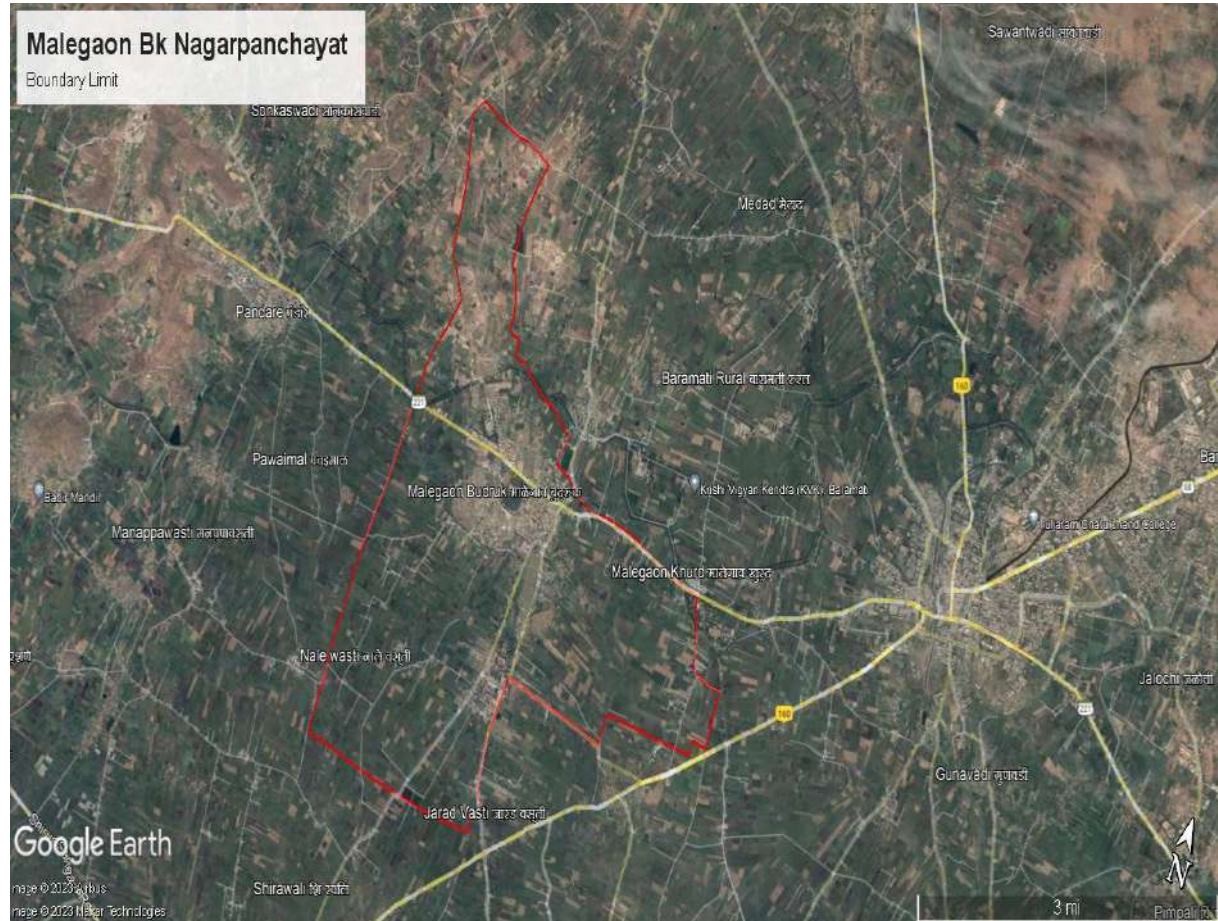
Primary crops include sugarcane. Malegaon Bk. has a large working class and the primary occupation is agriculture. People get employment from Baramati MIDC. Malegaon Bk. Co-operative sugarcane factory is developing as a center of industries. Engineering College, Pharm C College, ITI College, English Medium School Malegaon Bu. Educational development has taken place.

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Malegaon Bk Nagar panchayat Map



33% GREEN COVER ACTION PLAN

To achieved the 33% mandatory forest cover, how many saplings needed to be planted in the state?

Maharashtra geographical area is 3.07 sq./km. 33% green cover means 1.02 Lakh of green cover. Presently the forest area is 1.02 Lakh sq./km and an addition of 0.40 lakh sq./km is needed. This calls for bringing the non-forest area under the green cover. The number of saplings is determined by the local eco-geographical factors. The 50-crore plantation mission is a novel step in this direction. Given the wide range of variation in terms of the type of soil water availability and the usage pattern of the land, it would not be possible to forecast the number of saplings needed.

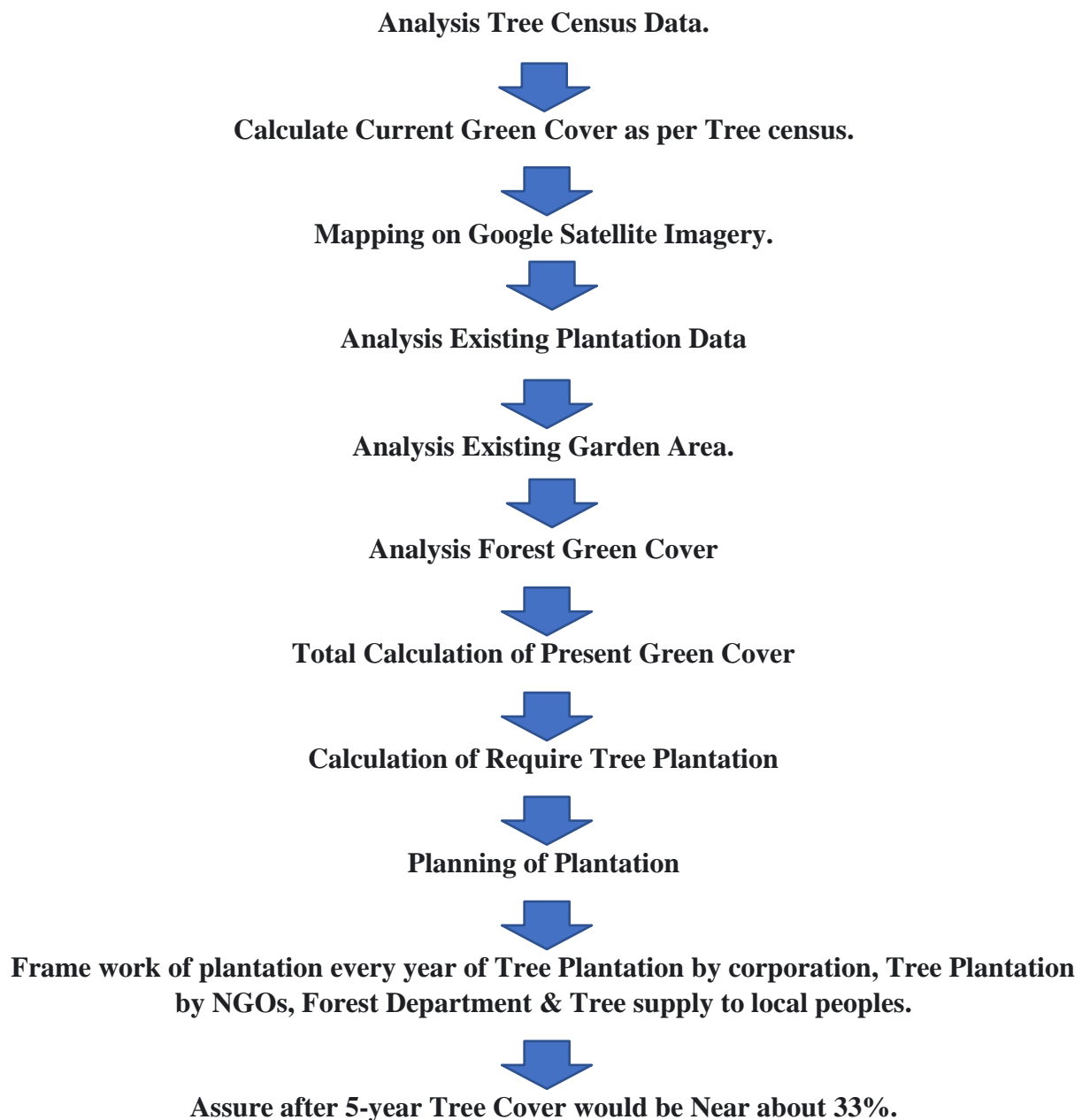
Increasing the green cover in the capital from 16.505 per cent to 33 %, in accordance with India's National Forest Policy & Majhi Vasundhara Mission 2.0.

Sufficiently large and protected greenspaces reduce the impact of human activities on climate. The ecosystem services provided by the urban greenspaces help the city in general and its citizens to adapt to the adverse effects of climate change and disasters

Description: To what extent is the city developing and increasing its green cover. Green Cover, defined as natural or planted vegetation covering a certain area of terrain, functioning as protection against soil erosion, protecting the fauna, and balancing the temperature. For the purpose of this indicator, green areas are defined as man-made city level and zonal/ district level greens; and reserved/ protected areas as per MoHUA's Urban Green Guidelines, 2014 and protected areas under the Wildlife Protection Act, 1972.

METHODOLOGY

Data available on area of urban greens can be analyzed from satellite imagery. Recent imagery can be procured from the state or National Remote Sensing Centre (NRSC). Baseline year: 2019. Comparative analysis using the formula given below on a yearly basis will help to understand the increase/decrease over time. This data is also being reported by cities for the Ease of Living Index and may be sourced from there.



TREE CENSUS & GREEN COVER
WARDWISE - OWNERSHIP WISE TREE COUNT

Agro Diamond

Baramati, Pune 413102

Date-31/03 /2022

CERTIFICATE

This is to certify that we have conducted Tree Census at all Malegaon Bk Nagarpanchayat Area limit.

Normal trees

Sr.NO	Ward No	Total Tree	Geo Tag
1	1	9207	yes
2	2	9138	yes
3	3	2834	yes
4	4	8562	yes
5	5	25670	yes
6	6	24255	yes
	Total	79,666	

Heritage Trees

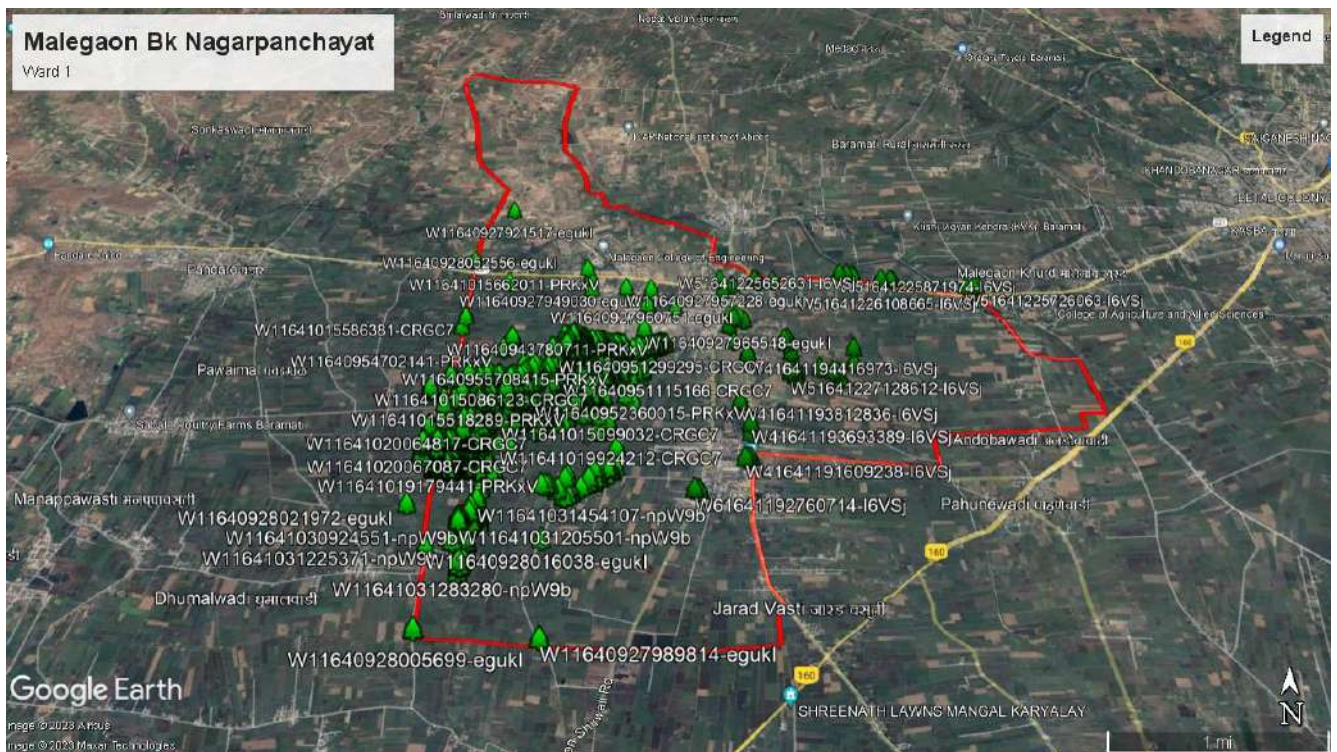
Sr.no	Ward no.	Total Trees	Geo tag
1 to 6	1 to 6	49	yes

Agro Diamond

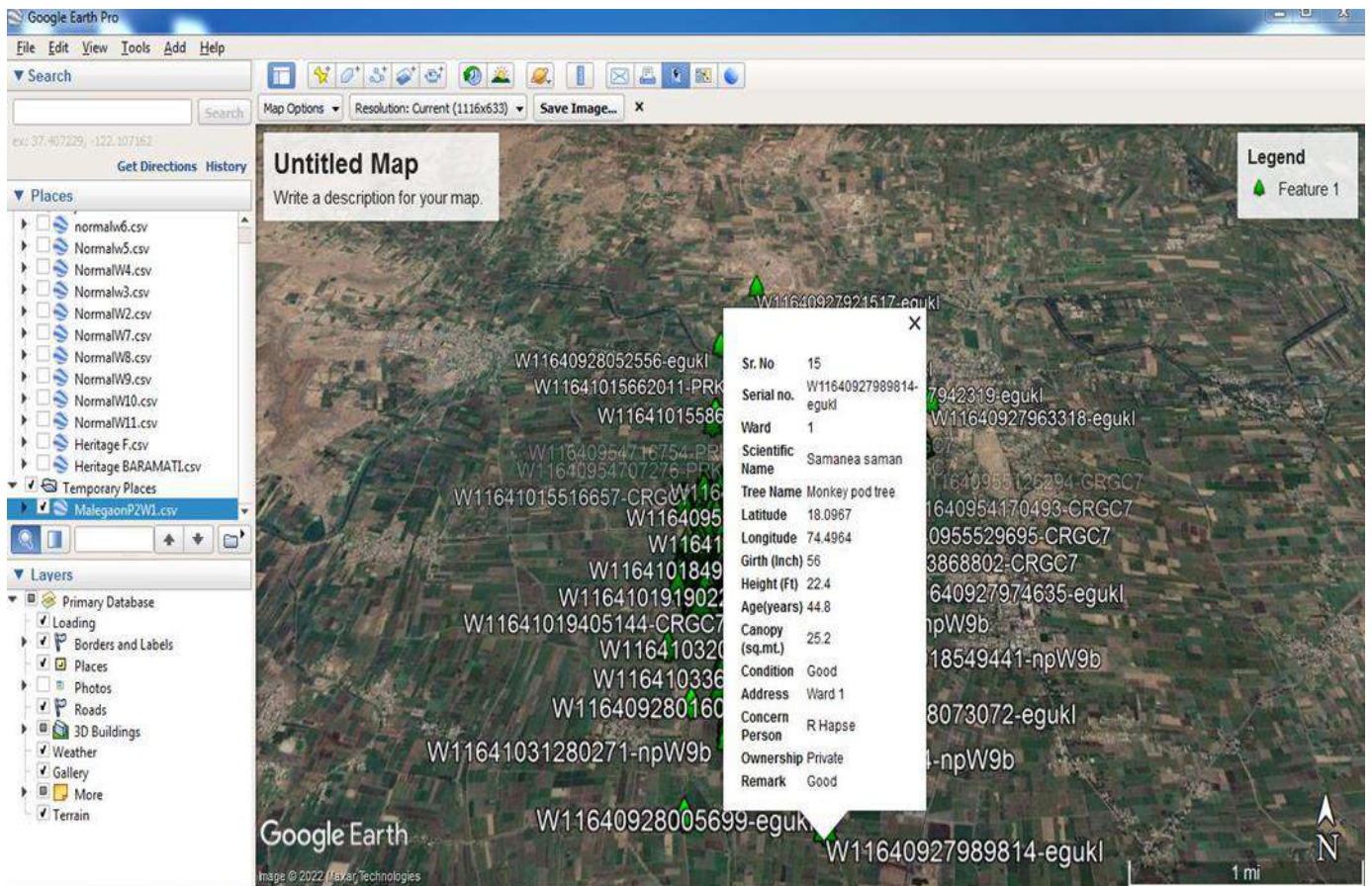

Proprietor

For ,
Agro Diamond ,
Baramati, Pin 413102

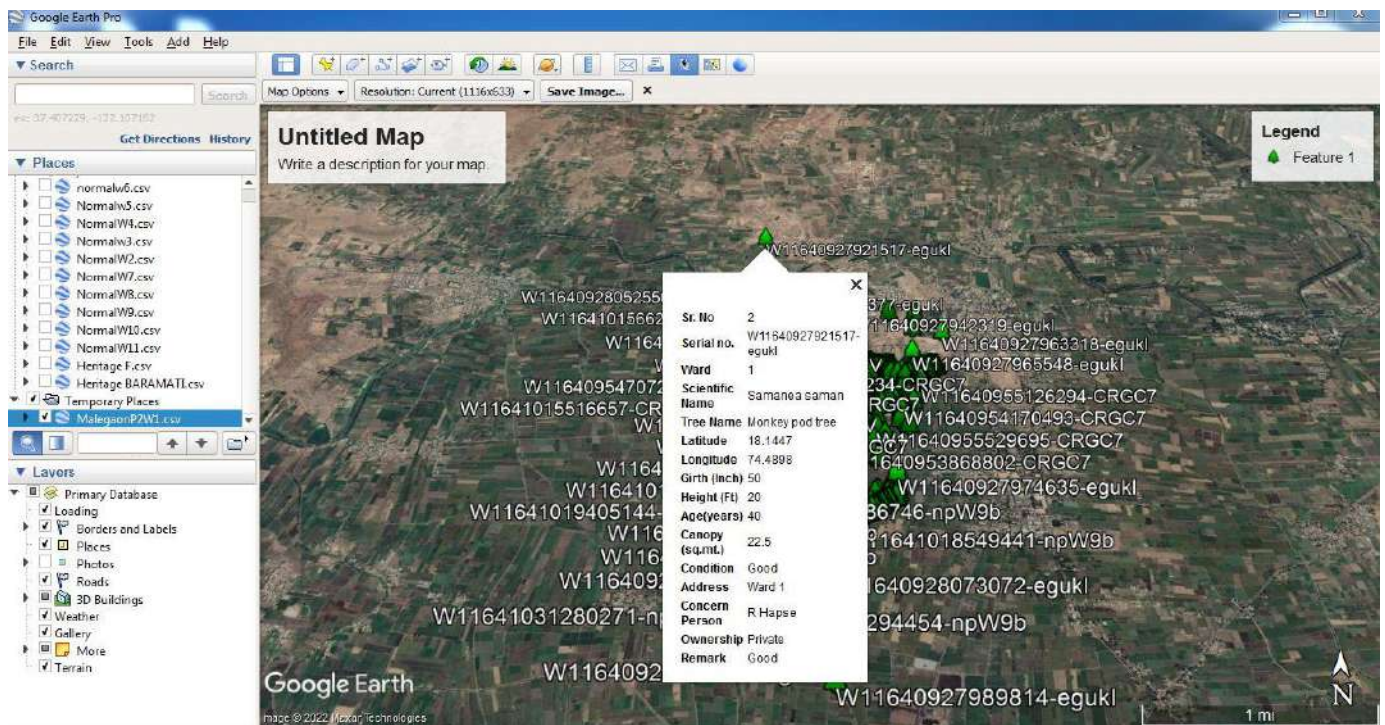
Ward No. 1



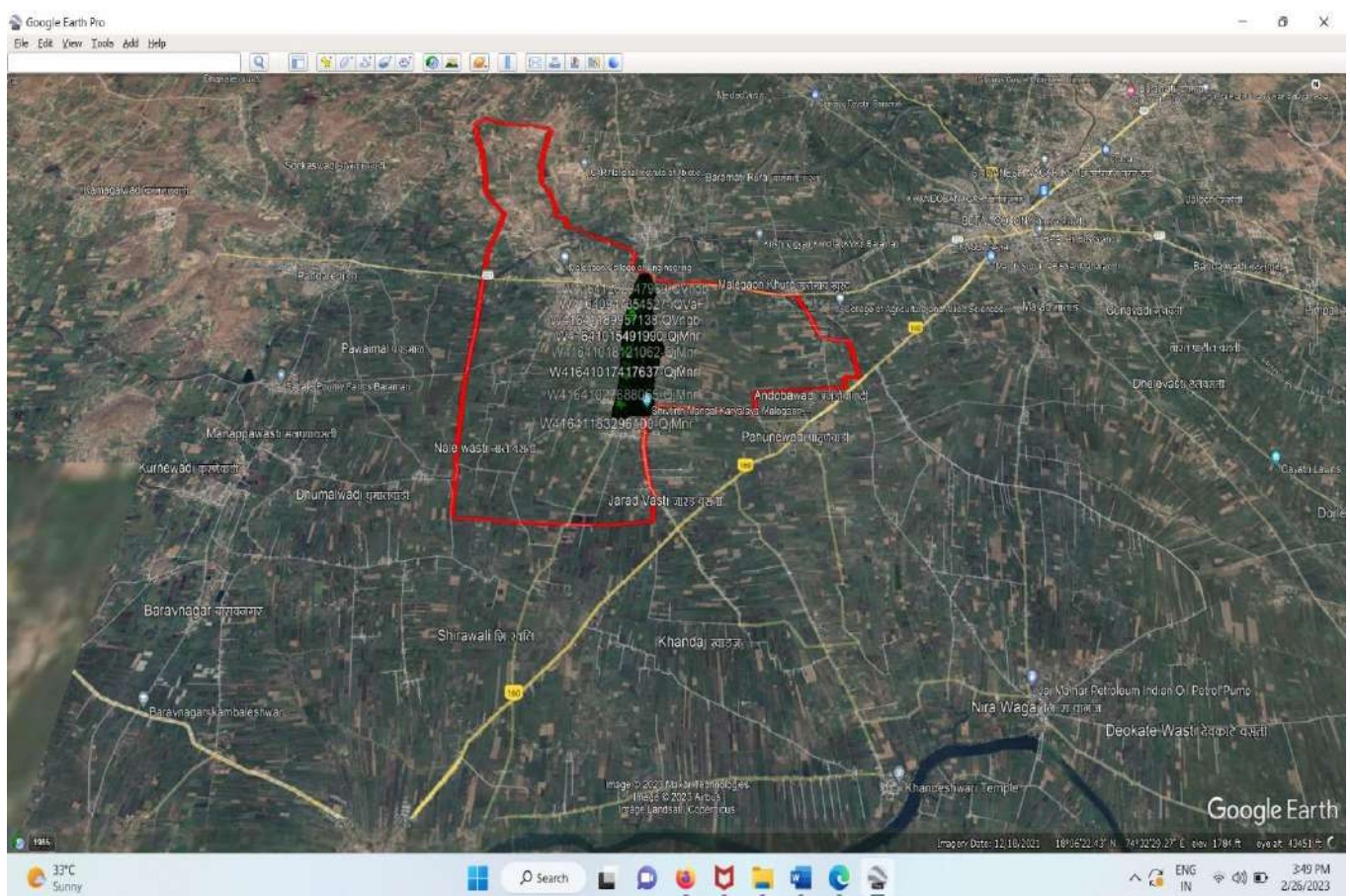
Ward No 2



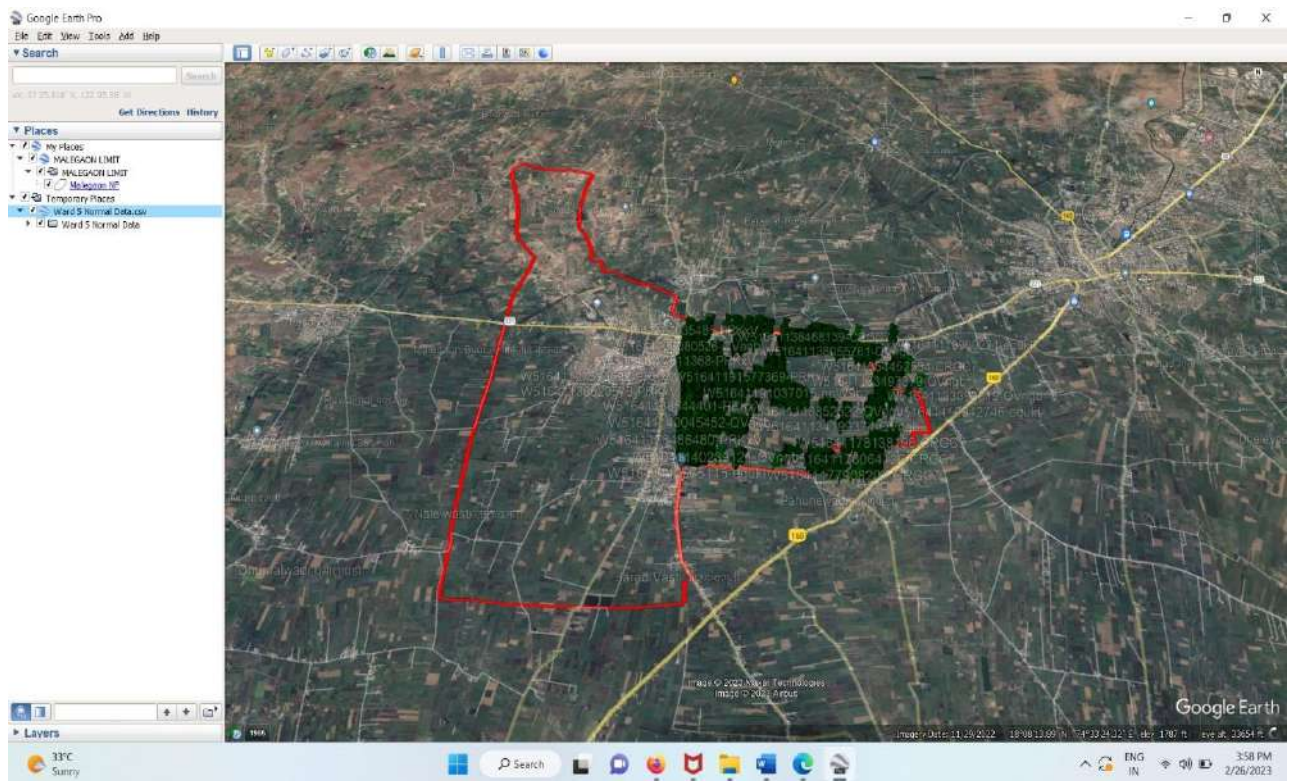
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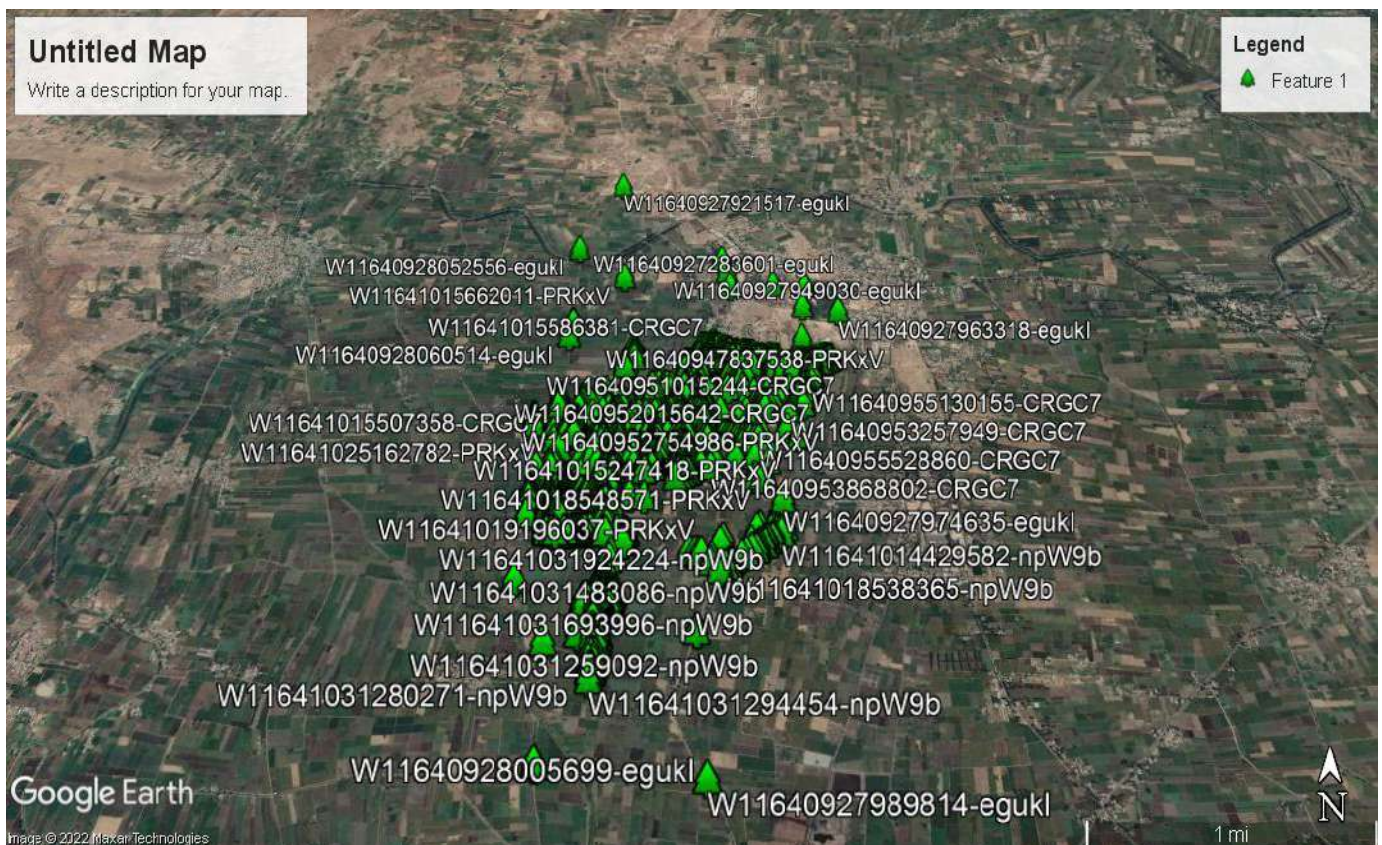
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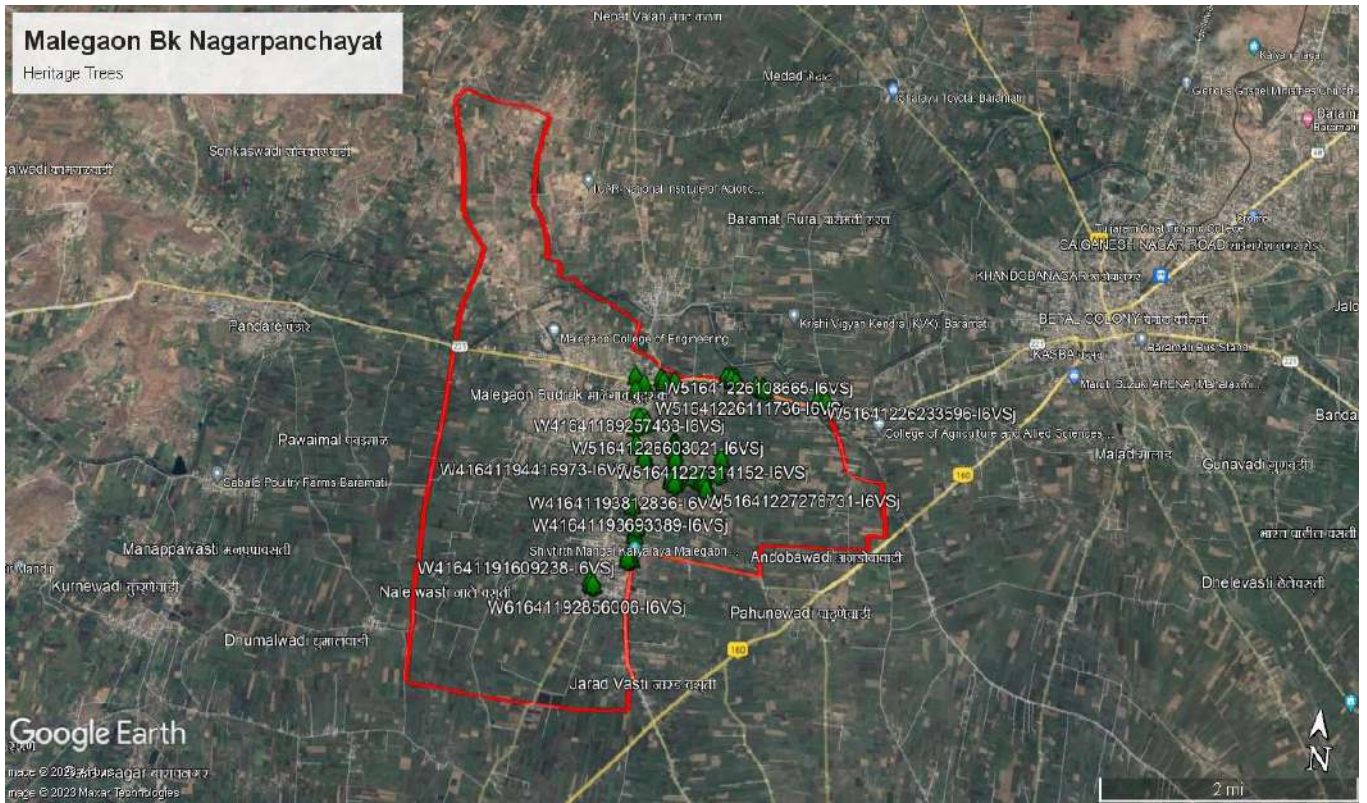
Ward No 5



Ward No 6



Heritage Tree



Agro Diamond

Baramati, Pune 413102

Date-31/03 /2022

CERTIFICATE

This is to certify that we have conducted Tree Census at all Malegaon Bk Nagarpanchayat Area limit. Green cover area Malegaon Bk Nagarpanchayat 38% means 7,04,520 sq. meter.

Total Area Sq Mt 18,54,000.

Normal trees

Sr.NO	Ward No	Total Trees	Canopy (Sq mt)
1	1	9207	6225547.37
2	2	9138	80779.92
3	3	2834	25052.56
4	4	8562	75688.08
5	5	25670	226922.8
6	6	24255	214414.2
	Total	79,666	7,04,520

Heritage Trees

Sr.no	Ward no.	Total Trees	Canopy (Sq mt)
1 to 6	1 to 6	49	539

Agro Diamond


Proprietor

For ,
Agro Diamond ,
Baramati, Pin 413102

CALCULATION OF TREES GREEN COVER WITH IN CITY

Tree Census Data 2021-22

What is Tree Census?

A **census** is the procedure of systematically enumerating, and acquiring and recording information about the Number of Trees in particular area. The census is a list that keeps track of all Trees for example tree name, girth, height, age, health condition, ownership etc.

Why Tree Census is Important?

A tree census also helps in future environmental planning. The census is also aimed at encouraging community awareness of the need for tree conservation, regulating pruning and felling and increasing green cover with people's participation.

Once completed, the tree census may become a regular feature that can be repeated every five years and serve as a potential platform for an environmental education programme that would help spread awareness about the need for clean air, recharging of ground water, maintenance of biodiversity, reduction of noise pollution and so on.

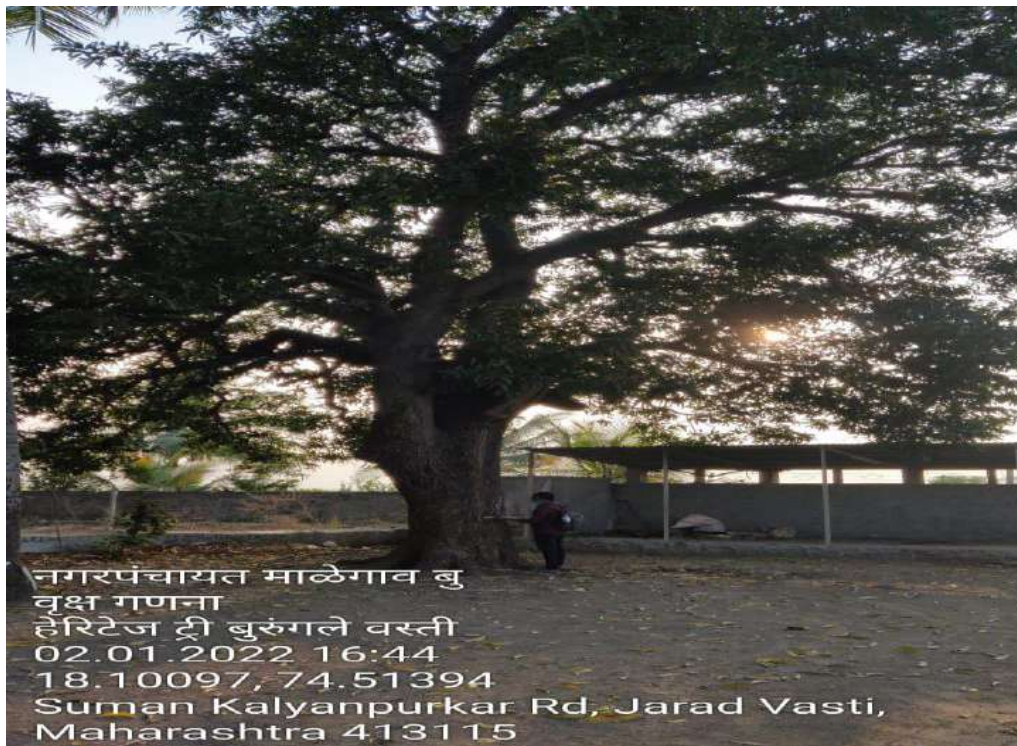
Sr. No	Description	Area cover
1	Malegaon Bk City Area Sq./Km	18.54 Sq./Km
2	Total All Tree Count as per Tree Census	79,715 Trees
	Note – Average Tree Canopy 16 Sq./Meter	
3	Tree Canopy Green Cover	7.4 Sq./Km

How many Trees are needed to produce enough oxygen for one person?

You'll hear a range of numbers and ways of presenting them because the amount of oxygen produced by a tree depends on the species of tree, its age, its health, and also on the tree's surroundings. The bigger the tree the more total oxygen it produces and more is its own requirement for oxygen for survival. Yes, a 59-year-old Neem tree produces more oxygen than a 1-year-old Neem Tree. According to the Arbor Day Foundation, "a mature leafy tree produces as much oxygen in a season as 10 people inhale in a year." "A single mature tree can absorb carbon dioxide at a rate of 48 lbs./year and release enough oxygen back into the atmosphere to support 2 human beings."

"One acre of trees annually consumes the amount of carbon dioxide equivalent to that produced by driving an average car for 26,000 miles. That same acre of trees also produces enough oxygen for 18 people to breathe for a year." "A 100-ft tree, 18" diameter at its base, produces 6,000 pounds of oxygen." "On average, one tree produces nearly 260 pounds of oxygen each year. Two mature trees can provide enough oxygen for a family of four."

Conclusion- We need at least 2 Trees to make enough oxygen for 1 person.







समर्थनयुक्त गाळगाव रु.
नक्ष भवन
गाळगाव रु.
01.01.2022 12:55
18 11 73 74 49472
4F8V+MWF, Malegaon Budruk, Maharashtra 413115

EXISTING PLANTATION DATA

Malegaon Bk Nagar panchayat involved in this initiative from a long time. Tree-planting is the process of transplanting tree seedlings, generally for forestry, land reclamation, or landscaping purpose. It differs from the transplantation of larger trees in arboriculture, and from the lower cost but slower and less reliable distribution of tree seeds. Trees contribute to their environment over long periods of time by providing oxygen, improving air quality, climate amelioration, conserving water, preserving soil, and supporting wildlife. During the process of photosynthesis, trees take in carbon dioxide and produce the oxygen we breathe.

Malegaon City Corporation Tree Plantation

Sr. No.	Year of Plantation	Total Plantation	Description
1	2021	2200	Tree Plantation, Provide to Local Peoples.
2	2022	6200	Tree Plantation
3	2023	6100	Tree Plantation
Total		14,500	

Existing Tree Plantation Green Cover

Sr. No.	Description	Area
1	Total Tree plantation Last 2 year	14500
2	Mortality Rate 10%	1450
3	Existing present Trees	79715
4	Total Tree Cover (Average Tree Canopy 3 Meter)	7.4 sq/km

Green Area Photo

1) Shivanagar Vidya Prasarak Mandal



2) Government Industrial Training Institute





3) Nageshwar Mandir

4) Nanadan Dairy





5) Near Police Station Area

6) Malegaon Sugar Factory Area





7) Shardabai Pawar Mahila Arts, Commerce & Science College Area



8) Cemetery Malegaon Bk

EXISTING GARDEN GREEN COVER

garden and landscape design, the development and decorative planting of gardens, yards, grounds, parks, and other types of areas. Garden and landscape design is used to enhance the settings for buildings and public areas and in recreational areas and parks. It is one of the decorative arts and is allied to architecture, city planning, and horticulture.

Efforts to design gardens and to preserve and develop green open space in and around cities are efforts to maintain contact with the original pastoral, rural landscape. Gardens and designed landscapes, by filling the open areas in cities, create a continuity in space between structural urban landscapes and the open rural landscapes beyond. Moreover, gardens and designed landscapes have a special type of continuity in time. Buildings, paintings, and sculpture may survive longer than specific plants, but the constant cyclical growth and change in plants provide a continuous time dimension that static structures and sculpture can never achieve.

Sr.no	Name of the park
1	Shivnagar Vidya Parasak mandal's Engineering College
2	Government Industrial Training Institute
3	Nageshwar Mandir
4	Nandan Dairy & Pashukhadya Malegaon bk
5	Near Police Station Area
6	Malegaon Sugar Factory
7	Amar sigh Garden Malegaon Bk
8	Shardabai Pawar Mahila Arts, Commerce & Science College
9	Cemetery Malegaon Bk

Garden Area Green Cover

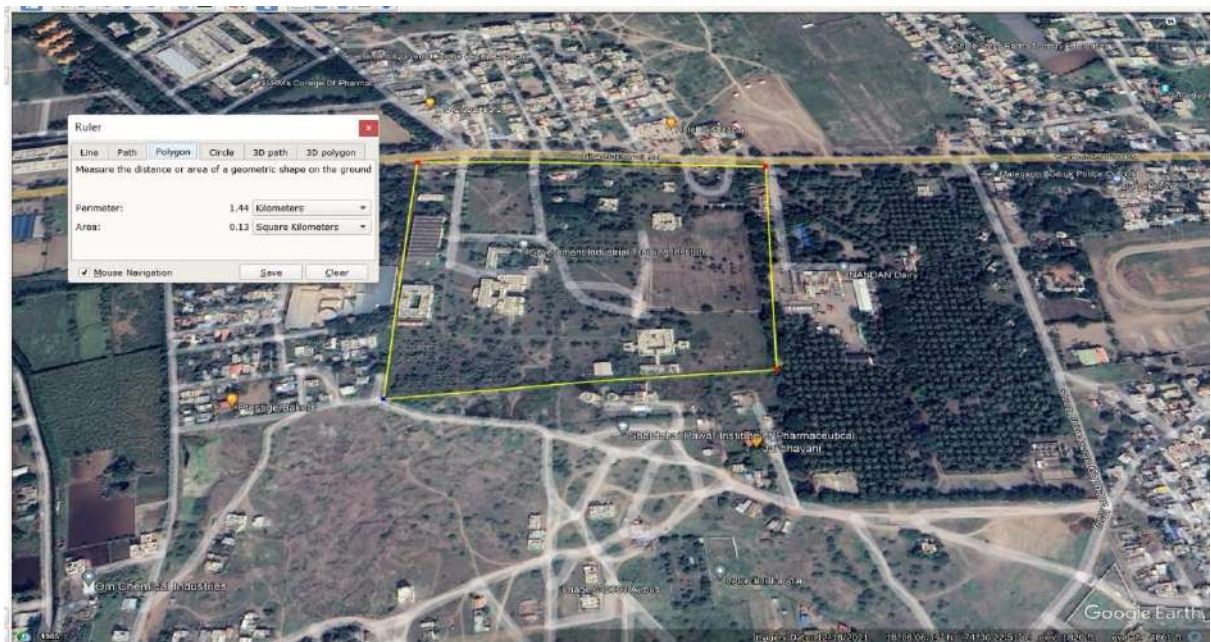
Sr. No.	Description	Area
1	Total Garden Area	5926 Sq./M
2	Total Garden Green Cover Area	5.9 Sq./Km

- 1) **Nandan Dairy Garden** has developed by Nandan Dairy Management, and This is largest garden in Malegaon Bk Pune district by area and here more than 5000 Tree, climber, herb, bamboo species has been planted.

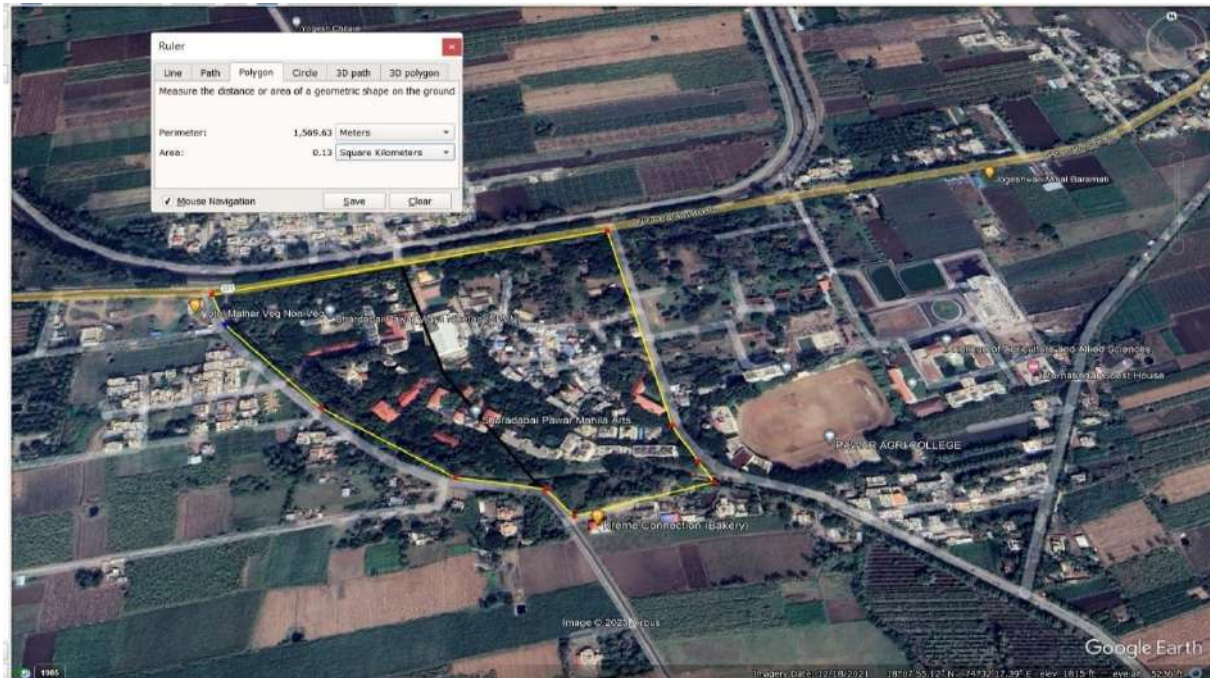


Total Area covered – 0.13 Sq./Km

- 2) **Government Industrial Training Institute Garden** has developed by Malegaon Bk Nagarpanchayat and Government Industrial Training Institute Malegaon Bk, This is largest garden in Malegaon Bk Pune district by area and here more than 5500 Tree, climber, herb, bamboo species has been planted.

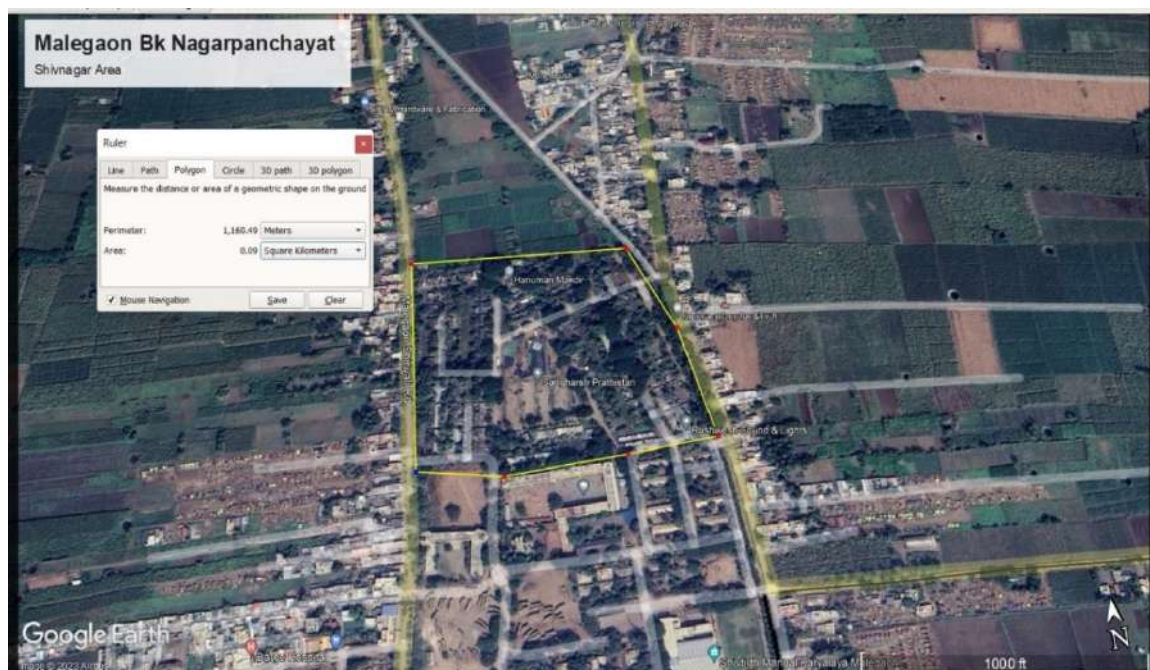


- 3) **Agricultural Development Trust's Shardabai Pawar Mahila Arts, Commerce & Science College Garden** has developed by Agricultural Development Trust's Shardabai Pawar Mahila Arts, Commerce & Science College. This is largest garden in Malegaon Bk, Pune district by area and here more than 4500 Tree, climber, herb, bamboo species has been planted.



Total Area covered – 0.13 Sq./Km

- 4) **The Malegaon Sahakari Sakhar Karkhana Ltd. Garden** has developed by The Malegaon Sahakari Sakhar Karkhana Ltd., Malegaon Bk, Pune. This is largest garden in Pune district by area and here more than 4500 Tree, climber, herb, bamboo species has been planted.



Total Area covered – 0.55 Sq./Km

Daphan Bhumi Garden Area has developed by Malegaon Bk Nagar panchayat and Muslim Social Group and This is garden in Malegaon Bk area and here more than 25000 Tree, climber, herb, bamboo species has been planted.



Total Area covered – 0.23 Sq./Km

Shivnagar Vidya Prasarak Mandal, Shivnagar Garden has developed by Shivnagar Vidya Prasarak Mandal, Shivnagar, and This is garden in Pune district by area and here more than 3500 Tree, climber, herb, bamboo species has been planted.



Total Area covered – 0.23 Sq./Km

CALCULATION OF TOTAL GREEN COVER AREA PRESENT

Due to the fact that part of the Malegaon Bk Nagar panchayat area, there is a lot of trees here. There is a lot of vegetation in the outskirts of the area but not much in the center of the city and in the densely populated areas. It is also necessary to increase the green area in the urban areas due to the high level of pollution.

Sr. No.	Description	Area
1	Tree Census Green Cover	7.4 Sq./Km
2	Existing Plantation	0.25 Sq./Km
4	Forest area (Excluding)	0 Sq./Km
5	Green Cover Area	7.65 Sq./Km
6	Total Area of City	18.54 Sq./Km
7	33 % Green Cover Require Area	7.3 Sq./Km
Conclusion		
Malegaon Bk Nagar panchayat achieve 33 % Green Cover Goal		

Action Plan to More than 33 % Green Cover

Tree plantation Requirement as per Area

Sr. No	Description	Area / Count
1	Require Develop Green Cover Area	0.99 Sq./Km
2	Distance of Planting Trees	5 Meter
3	Total Tree Require	55,00,00 Trees

Next Five-Year Plantation Plan

Sr. No	Year	Tree Plantation	Remark
1	2022-23	6500	Nagar panchayat , Ngo's
2	2023-24	7000	Nagar panchayat, Ngo's, Company,Forest Dpt.
3	2024-25	10000	Nagar panchayat, Ngo's, Company,Forest Dpt.
4	2025-26	10000	Nagar panchayat, Ngo's, Company,Forest Dpt.
5	2026-27	22000	Nagar panchayat, Ngo's, Company,Forest Dpt.

NEW TREE PLANTATION

Malegaon Bk Nagar panchayat involved in this initiative from a long time. Tree-planting is the process of transplanting tree seedlings, generally for forestry, land reclamation, or landscaping purpose. It differs from the transplantation of larger trees in arboriculture, and from the lower cost but slower and less reliable distribution of tree seeds. Trees contribute to their environment over long periods of time by providing oxygen, improving air quality, climate amelioration, conserving water, preserving soil, and supporting wildlife. During the process of photosynthesis, trees take in carbon dioxide and produce the oxygen we breathe.

Open Space within City

अ.क्र.	नाव	गट न.	ओपन स्पेस
01	प्रफुल भिमदेव तावरे	643	1776 m ²
02	निलेश दिलिप जगताप व इतर 2	672 पै.	900 m ²
03	शिवाजी गुलाबराव तावरे	229 पै.	801.34 m ²
04	जयकुमार छगनलाल मुथा	662 पै.	4800 m ²
05	जयकुमार छगनलाल मुथा	662 पै.	5688.14 m ²
06	राजे वसुंधरा अमरसिंह जाधवराव	691,692,694,695,696,697 ,698,702	3920 m ²
07	सचिन रघुनाथ भोसले	215 पै.	910.12 m ²
08	चेअरमन बारामती ता. स.दुध उत्पादक संघ	1107 (जुना) 551/2, 551/3	2420 m ²
09	श्रीमती विमल देव	15 पै.	770 m ²
10	विमल यशवंत तावरे	15 पै.	839.97 m ²
11	दत्तात्रय दिनकर देवकाते	690 पै.	1370 m ²
12	सिताराम विठ्ठल कारंडे	16/1	450.56 m ²
13	विरेद्रसिंह मानसिंहराव जाधवराव	698	1626.44 m ²
14	सचिदानंद दत्तात्रय माळवदकर	240 पै.	400 m ²
15	आबासाहेब महादेव कोढाळकर	166	400 m ²
16	संतोष ज्ञानदेव चाचरे	560	252 m ²
17	रविंद्र दिलिप धुमाळ	559 पै.	250 m ²
18	अनुजा राजेंद्रकुमार गायकवाड	643	1776 m ²
19	मोहनराव नाथबुवा जगताप	446/4	646 m ²
20	निनाद भिमराव माने	570/12 पै.	380.10 m ²

Open Space Plantation

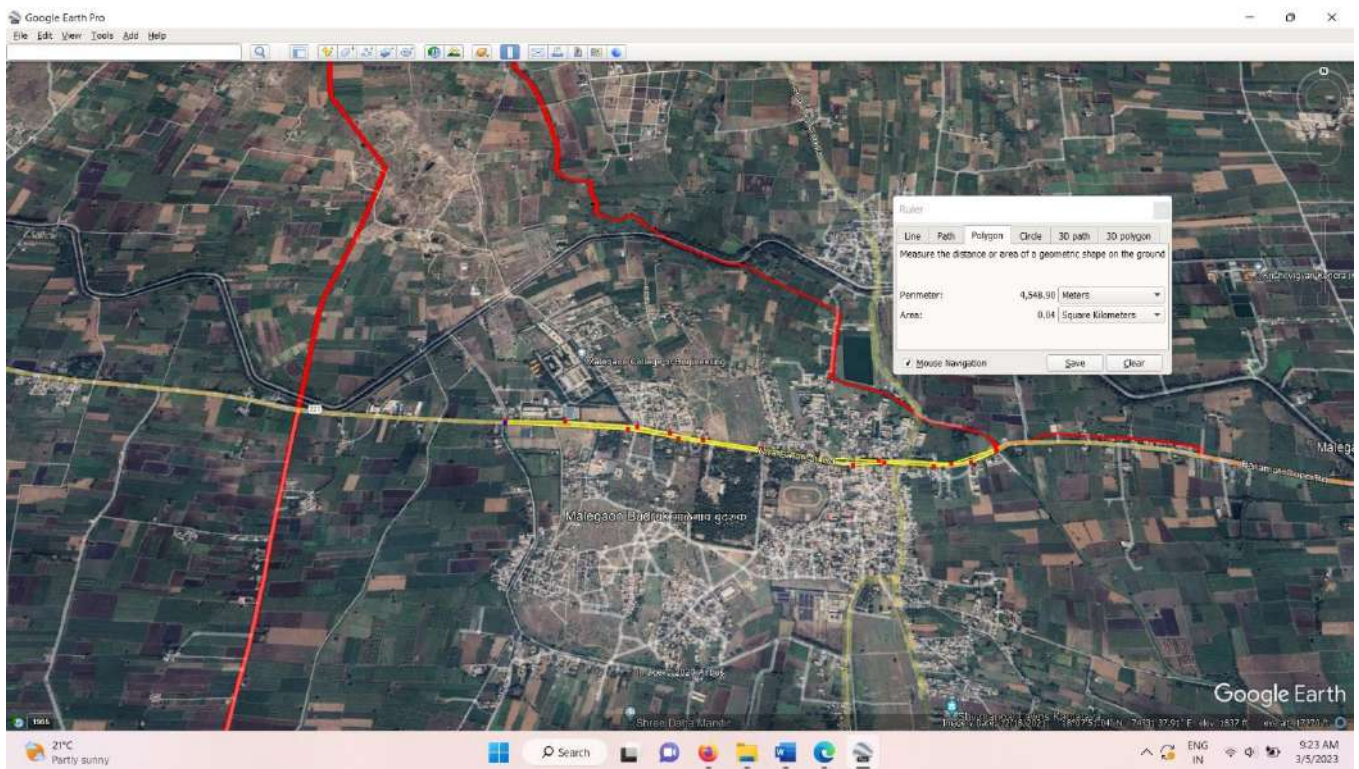
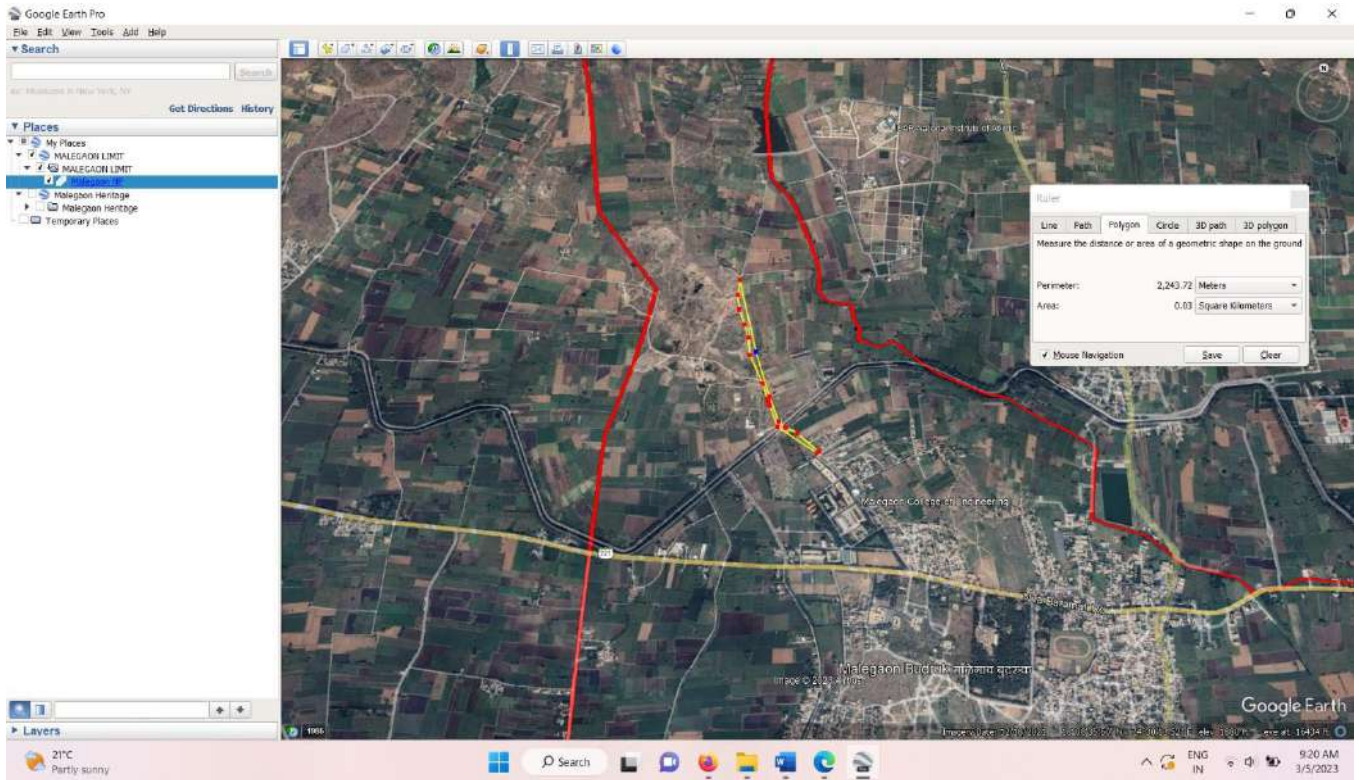
Sr. No.	Total Area	Proposed Plantation	Distance of Plantation
1	0.99 Sq./Km	55000Trees	5 Meter

Five Year Plan ULB Target

Sr. No	Year	Plantation Target
1	2022	7000 Trees
2	2023	7000 Trees
3	2024	7000 Trees
4	2025	7000 Trees
5	2026	7000 Trees

Proposed Plantation

Proposed Road Plantation



Road Plantation

Sr. No.	Total Area	Proposed Plantation
1	Approx. 3 Kilometer Road	2500 Trees

Five Year Plan

Sr. No	Year	Plantation Target
1	2022	500 Trees
2	2023	500 Trees
3	2024	500 Trees
4	2025	500 Trees
5	2026	500 Trees

ROAD PLATATION PHOTO



TREE PLANTATION AWARENESS PROGRAMME

Planting trees is the ideal approach to support nature. It additionally helps other living species, including people, in many ways. Trees give us oxygen, food, shelter, and many more. They are natural air filters and noise safeguards. Trees are the earth's life supportive network. They support and are essential for life on earth. Aside from giving oxygen, trees additionally work as common safeguards of noise pollution.

The forests do develop naturally. Be that as it may, today, forests are chopped down at a rate more noteworthy than they could develop. This causes a sort of irregularity, wherein relatively few trees are left to meet our oxygen supply and different requirements.

Trees are a source of shelter and nourishment for many species, reptiles, and birds. Any place a tree is planted it gives another lease of life to these species. Trees additionally cause rain and prevent floods. Rajendra Academy for Teachers' Education, Durgapur inspires students and staff to plant more and more saplings so that they can easily make

One of the recognized purposes behind tree plantation is forestry. Forests are quickly diminishing from the surface of the earth since people are cutting trees for business purposes. Despite the way that forests develop normally, there is a need to regrow them at a more noteworthy rate than the rate at which they are destroyed. Aside from improving the biodiversity, trees additionally add to the natural beauty of a spot.

Trees planted by the streets and in the parks add to the scenic beauty of the spot. A tree will be there for ages profiting everyone in its specific manner. If you plant a tree today, at that point, you're coming ages will be profited by it—one of the best future investments to make for your youngsters.

Plantations of trees are important as they improve the life and fulfil essential needs of mankind. During photosynthesis, the trees breakdown food materials and consume carbon dioxide. Resultantly with the help of sunlight, the trees produce carbohydrates. Honorable Chief Officer, Smita Kale Ma'am inspires and encourages all students and staff to take care of the environment by planting more and more trees. Tree plantation is one of the most important and eco-friendly activities all over the world which is taking place. Development of Nursery

NURSERY DEVELOPMENT

A vegetable or fruit nursery is a place where plants are cared for during the early stage of growth, providing optimum conditions for germination and subsequent growth until they are strong to be planted out in their permanent place. A nursery can be as simple as a raised bed in an open field or a sophisticated green house with micro sprinklers and controlled atmospheric systems. Nursery management and plant propagation are considered same. They are different but inter-related.

In fact, mass multiplication of quality planting materials is the center theme of nursery management is a trade oriented dynamic process, which refer to efficient utilization of resources for economic returns. Nursery management is team effort to reach the desired goal.

Nursery management

The main phases of nursery management are-

- Planning - demand for planting material, provision of mother blocks, requirement of land area, water supply, working tools, growing structures and input availability.
- Implementation - land treatment, protection against biotic interference and soil erosion, proper layout, input supply, etc.
- Monitoring and evaluation - physical presence, rapid response, critical analysis, incentive to workers, etc
- Feedback for further refinement

Requirement of nursery

Young plant whether propagated from seed or vegetative reproduction require lots of care particularly during the early stages of growth. They have to be protected from adverse temperature, heavy rain, drought, wind and varieties of pest and disease. If small seeds of vegetables are direct sown in field, germination is often poor and the young plant grow very slowly and require lots of time to mature. Also, there may be limitations in terms of available season for full development in the field. To overcome these problems, vegetable crops are grown in nursery before being transplanted in the field.

PEOPLES BIODIVERSITY RESISTER

Malegaon Bk Nagar panchayat has created People Bio-Diversity Register (PBR). This PBR contains information about availability & knowledge of local biological resources, their medicinal use or any other traditional knowledge related to it.

This PBR is approved by Biodiversity Management Committee. Malegaon Bk Nagar panchayat has published this PBR in newspaper, on Instagram, twitter, Facebook & made available on Official website of Malegaon Bk Nagar panchayat .

Expert is appointed to prepare biodiversity registers. This expert includes Botany, Biology, Agriculture, Forest officials as well as local experts.

Knowledge about agriculture, methods of cultivation and special properties of crops are collected from the farmers by visiting the places where agriculture takes place.

Contact the physicians who have been working in your department for many years and get information about the plants for which they are used.

Locals are contacted and their living conditions, working habits, pets etc. are known.

Visit places in your area where biodiversity is high and collect details of flora, fauna, soil and other information.

To get information about the natural resources of the city by meeting prominent people in the city / village, for example agriculture, forest experts and knowledgeable people.

Visiting the markets in the city and studying the local goods sold there.

To study the flora, fauna, micro-organisms, birds and other elements found in the city.

By visiting all the above places and collecting information, a People's Biodiversity Register is also prepared.

HERITAGE TREE CONSERVATION

What are heritage trees?

Under the proposed amendment, a tree with an estimated age of 50 years or more shall be defined as a heritage tree. It may belong to specific species, which will be notified from time to time. Experts believe that in addition to the age, the state climate change department (which will be implementing the Tree Act), should also consider a tree's rarity, its botanical, historical, religious, mythological and cultural importance in defining a heritage tree. The local Tree Authority will have to ensure tree census to be carried out every five years along with counting of heritage trees

How is the age of the tree determined?

The most common method of determining the age of the tree is Dendrochronology – or tree-ring dating also called growth rings. Each year, roughly a tree adds to its girth, the new growth is called a tree ring. By counting the rings of a tree, the age can be determined. However, the process is invasive. To analyse the rings, core samples are extracted using a borer that's screwed into the tree and pulled out, bringing with it a straw-size sample of wood. The hole in the tree is then sealed to prevent disease. The environment department, in consultation with the forest department, will issue guidelines to determine the age of the tree

Why was the concept of heritage tree introduced?

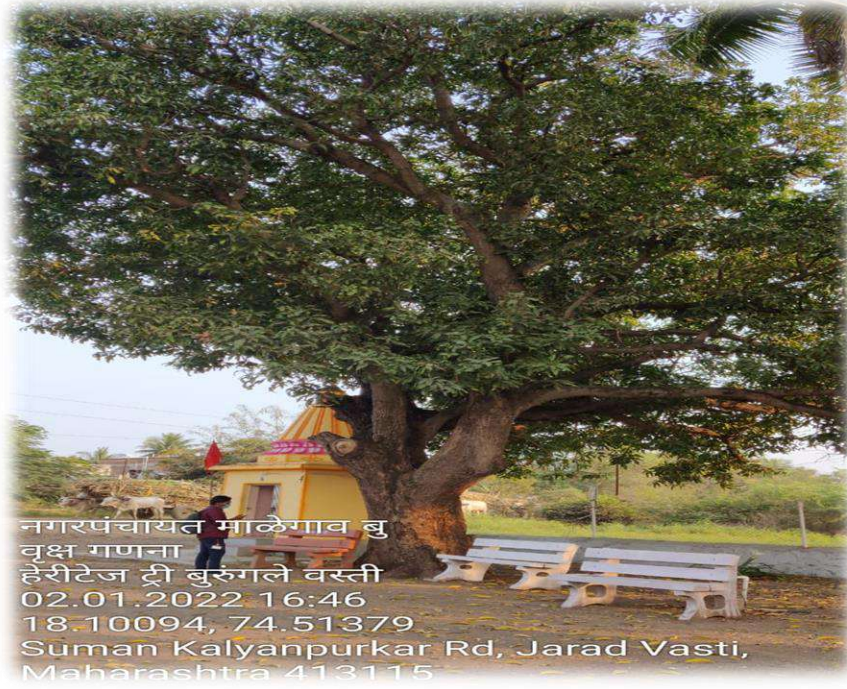
A heritage tree will get special protection. Crucially, the tree's age will determine the number of trees to be planted as part of the compensatory plantation – that is anyone cutting a heritage tree will need to plant trees in the same numbers as the cut tree's age. According to the current Compensatory Plantation in the state, one sapling has to be planted for each tree that is cut. In Mumbai, as per the Tree Authority set up in 1976, to help in regulating the felling of trees and providing for the planting of an adequate number of new trees through the Garden Department, the compensation ratios are 1:3. As per the amendment, the number of trees planted will be equal to the age of the heritage tree that is cut. For instance, if a 52-year-old tree is to be felled, then the party felling the tree will have to plant 52 trees in compensation, with each compensatory tree at least 6-8 ft in height at the time of planting. The organization planting the compensation trees will also have to ensure the survival of the plantation for seven years and geo-tag the trees. Such plantations can be carried out either in the same plot or a common amenity plot. Through the introduction of a heritage tree, the state environment wants to discourage the cutting of heritage trees

What is the economic value of the tree?

In case compensatory plantation is not possible, the tree feller has to pay compensation for the economic valuation of the trees being felled. While the state government has not defined the economic value of the tree, experts say that the amount of oxygen that a tree releases into the environment should determine its economic value.

The Supreme Court, in March this year, addressed the issue of the value of trees, beyond the wood/timber cost. In a matter about the felling of trees of ages up to 150 years for Road Over Bridges and road-widening projects in West Bengal, the SC ordered setting up a seven-member expert committee to “prescribe a mechanism for assessment of both intrinsic and instrumental value of the trees...”. To calculate “just and fair compensation...for felling of trees...it is...imperative to make a realistic assessment of the economic value of a tree, which may be permitted to fell, concerning its value to the environment and its longevity, about factors such as the production of oxygen and carbon sequestration, soil conservation, protection of flora/fauna, its role in habitat and ecosystem integrity and any other ecologically relevant factor, distinct from timber/wood,” the court said.

The amendment also has the fine for illegal felling of trees from a maximum of Rs 5,000 to Rs 1 lakh per tree.



Encourage to local Peoples for Plantation

There is a lot of open space available in Malegaon Bk Nagar panchayat area but due to low rainfall in the area, it is not possible to take care of the trees properly. If the citizens themselves plant trees in the vicinity of their homes and in their own space, then those trees will be well cared for and green belts will develop as soon as possible. We have planned for the next 5 years that the Nagar panchayat distributes small trees among the citizens in the month of June every year.

Sr. No	Year	Plantation Target
1	2022	2,000 Trees
2	2023	3,000 Trees
3	2024	3,000 Trees
4	2025	5,000 Trees
5	2026	5,000 Trees

Encourage to NGOs for Plantation

There are some NGOs working in the field of environment in Malegaon Bk Nagar panchayat area. These organizations are involved in planting and cultivating trees. The Malegaon Bk Nagar panchayat will encourage such organizations to plant trees and provide them space which will help in developing green belts within the Nagar panchayat boundaries.

Sr. No	Year	Plantation Target
1	2023	2,000 Trees
2	2024	3,000 Trees
3	2025	5,000 Trees
4	2026	5,000 Trees

NGO's

1) Yuva Chetna Birds Home

Encourage to Local Companies, Hospital, Bank, Government Offices for Plantation

Malegaon Bk Nagar panchayat will encourage local level organizations, hospitals, banks and government offices to plant trees and will include them in my Vasundhara Mohim. All these institutes have ample space available so they can plant trees and take good care of them.

Sr. No	Year	Plantation Target
1	2023	1,000 Trees
2	2024	2,000 Trees
3	2025	2,000 Trees
4	2026	2,000 Trees

Local Companies

1. Malegaon Sugar Factory Malegaon Bk.
2. Nandan Dairy Malegaon Bk.

NATIVE TREE SPECIES PLANTATION

HOW DOES PLANTING NATIVE TREES HELP THE ENVIRONMENT?

When you plant local trees, you help local wildlife live and thrive. Animals like birds and butterflies have looked to native plants for years for food and shelter. When there aren't enough native trees around, these populations can quickly decline. That's why native trees are important—they help support our local ecosystems.

WHAT ARE THE ADVANTAGES OF PLANTING NATIVE TREES?

There are so many great reasons to plant a native tree. They don't just benefit the wildlife we share space with, but native trees can actually help us, humans, too. Here's how:

- Many insects, birds, and animals depend on native trees for food and shelter. They'll thank you for planting them!
- Living somewhere with blisteringly cold or awfully hot seasons? Native trees are well-adapted to the local climate, which means they'll have the best chance at survival.
- While non-native trees might not do well up against local pests, native trees often don't have as many pest problems.

ARE THERE ANY DISADVANTAGES FOR PLANTING NATIVE TREES?

Yes, native trees can come with a few drawbacks. For starters, they're sometimes hard to track down. Not all local tree nurseries prioritize native plants, so you may have to do some digging to find what you're looking for.

Secondly, native trees aren't always foolproof. Just because a tree originated in your region, doesn't mean it's meant to grow in your yard. For example, a tree native to your state might grow best in sandy, well-drained soil, but maybe your yard's soil is typically clayey and over-saturated. Or, a native tree that thrives in full sun won't do well if you have a particularly shady landscape.

All that said, when you plant with the specific species' needs in mind, such as climate, space, and soil environment, you have a good chance of growing a happy, healthy tree.

NATIVE TREE PLANTATION

Sr. No.	Botanical Name	Common Name
1	Acacia catechu	Khair
2	Aegle marmelos	Bel
3	Balanties aegyptiaca	Hingan, Ingudi
4	Butea monosperma	Palash
5	Cassia fistula	Indian Labernum
6	Dalbergia	Shisham
7	Mangifera Indica (Country variety)	Mango
8	Mimusopselengi	Bakul
9	Oroxylon indicum	Tetu
10	Pongamia pinnata	Karanj
11	Pterocarpus santalinus	Rakta Chandan
12	Santalum album	Chandan
13	Saraca asoca	Sita Ashok
14	Semecarpus anacardium	Biba
15	Syzygium cumini	Jamun
16	Tecomella undulata	Marwar Teak, Rohitak
17	Terminalia arjuna	Arjun
18	Terminalia belerica	Behada
19	Azadirachta indica	Kaduneem
20	Albizia lebbeck	Shirish
21	Ficus benghalensis	Vad
22	Ficus religiosa	Pimpal



Terminalia elliptica



Bombax ceiba



Dalbergia sissoo



Acacia catechu



Ficus benghalensis



Syzygium cumini



Mangifera indica



Tamarindus indica

Malegaon Bk Nagar panchayat

RECAPITULATION COST FOR GREEN COVER

**Name of Work : Detailed Project Report under Majhi Vasundhara
Abhiyan Malegaon Bk Nagar panchayat for the year 2022-23**

Sr.No	Description	Amount
1	Tree plantation to increase Green Cover In Malegaon City	3873421.10
2	Nursery Development work for Malegaon Bk Nagar panchayat	1874811.93
	Total Amount	
	Rounded off	5748233

**Name of Work - Tree plantation to increase Green Cover of city for
Malegaon Bk Nagar panchayat**

		RECAPITULATION SHEET				
	Cost of Softscope			Rs.	3424170	430012
			Total Rs.	Rs.	3424170	
	G S T on Work Portion		12%	Rs.	3835070.4	
	1% Labour Insurance		1%	Rs.	3873421.10	
			Total Rs.			
				Say As	3873421	/-

Malegaon Bk Nagar panchayat

Name of Work - Tree plantation to increase Green Cover of city for Malegaon Bk Nagar panchayat

Abstract

Sr. No	Particulate	Qty	Rate	Unit	Total
	Plantation: Trees				
1	Planting large flowering / shady trees(Ht.2 mtr.) Digging pit with size 0.9 X 0.9m X 0.9 m removing and conveying unwanted stuff to a required distance as directed. Filling the pit with approved height of 0.60m. with fresh garden soil & manure in 3:1 proportion Mixing soil & manure thoroughly well. leveling, as directed watering previous night, planting two to three years old minimum 2.0 mtr. height healthy tree sapling as per specifications. maintaining till well established by watering, weeding, stirring of soil replacing of casualties etc complete. PWD Garden DSR 2016-17	2200	842.79	Nos	1854138
2	Providing Fixing 6 feet height M.S tree Guard With 2 feet dia with excavation etc. complete (As per GeM rate	1200	1200	Nos	1440000
3	Boring/drilling bore well of 300mm dia for casing/ strainer pipe, by suitable method prescribed in IS: 2800 (part I), including collecting samples from different strata, preparing and submitting strata chart/ bore log, including hire & running charges of all equipment's, tools, plants & machinery required for the job, all complete as per direction of Engineer in charge, up to 90m depth below ground level. PWD SSR 2021-22 Item No.48.48 (60 m x 39 spots=2340 Rmt)	1100	432	Rmt	475200
4	Supplying, assembling, lowering and fixing in vertical position in bore well, unplasticized PVC medium well- casing pipe of 150mm dia, conforming to IS:12818, including required hire and labor charges, fittings & accessories etc. all complete, for all depths, as per the direction of Engineer in charge.PWD SSR 2021-22 Item	220	499	Rmt	109780
5	Supplying and erecting submersible pump set of 3.75 KW/5 HP with 415 V, 50 c/s AC supply suitable for 100 mm dia. borewell suitable for 85 to 170 LPM discharge at 110 to 46 m head & (max. efficiency at 83 m head & 130 lpm) discharge & delivery pipe of Size-65 mm diameter with a necessary H type clamps as per specification no.	10	36162	Nos	361620

Malegaon Bk Nagar panchayat

Name of Work - Tree plantation to increase Green Cover of city for Malegaon Bk Nagar panchayat

Abstract

Sr. No	Particulate	Qty	Rate	Unit	Total
6	Providing and Supplying Blue MDPE pipes conforming to ISO 4427:1996 manufactured from virgin resin PE 80 Food grade compounded Raw Material having Blue Colour only with quality assurance certificate from quality agencies like WRC / CIPET (India) / DVGW / KIWA / SPGN etc. for usage in Drinking Water system.	1200	191	Rmt	229200
7	providing and erecting Drip irrigation pipe of 16 mm with Class I - 8 Years Life Drip Pipe 0.72mm wall	6100	24	Rmt	146400
8	providing and erecting 4.5 Mm Online Dripper, For Drip	6100	2.4	Lum sum	14640
9	Maintenance for Three year of planted of trees by open spaces including farm yard/ manure, pesticides watering etc.complete. . AS per RA	3	303979	per tree	911937.6
10	3 Mali For Maintance for 3 years	2808	592	man days	1662336
	Total amt.				2964514
11	Material required for maintenace of tree planted= 1% of			Lum sum	2994159
	Total Amount				2994159
	Rounded Amount				29,94,158

Tree Officer

Malegaon Bk Nagar panchayat

Name of Work - Tree plantation to increase Green Cover of city for Malegaon Bk Nagar panchayat

Rate Analysis for Softscope

Sr. No.	Description of Item	% of	Basic Rate	Rate component	Unit
1	Planting large flowering / shady trees(Ht.2 mtr.) Digging pit with size 0.9 X 0.9m X 0.9 m removing and conveying unwanted stuff to a required distance as directed. Filling the pit with approved distance as directed Filling the pit with approved height of 0.60m. with fresh garden soil & manure in 3:1 proportion Mixing soil & manure thoroughly well. leveling, as directed watering previous night, planting two to three years old minimum 2.0 mtr. height healthy tree sapling as per specifications. maintaining till well established by watering, weeding, stirring of soil replacing of casualties etc complete. PWD Horti. DSR 2016-17				
	Rate as per PWD Horti. DSR 2016-17	1.00	811.00	811.00	
	Deduct For labour amenities & cess 2%	0.02		16.22	-
	Net rate			794.78	-
	Add 4% Malegaon Bk Nagar panchayat charges	0.04		31.79	
	Add for Labor amenities and cess			16.22	-
	Completed Rate			842.79	Per Tree
2	Providing Fixing 6 feet height M.S tree Guard With 2 feet dia with excavation etc. complete (As per rate Quotation)				
	As Per Gem Quotation	1.00	1,200.00	1,200.00	
	Completed Rate			1200.00	Per Item
3	Boring/drilling bore well of 300mm dia for casing/ strainer pipe, by suitable method prescribed in IS: 2800 (part I), including collecting samples from different strata, preparing and submitting strata chart/ borelog, including hire & running charges of all equipment's, tools, plants & machinery required for the job, all complete as per direction of Engineer in charge, up to 90m depth below ground level. PWD SSR2021-22 Item No.48.48				
	Rate as per SSR 2021-22/48.48	1.00		416.00	
	Deduct For labor amenities & cess 2%	0.02		8.32	-
	Net rate			407.68	-
	Add 4% Malegaon Bk Nagar panchayat charges	0.04		16.31	
	Add for Labour amenities and cess			8.32	-
	Completed Rate			432.31	Rmt
4	Supplying, assembling, lowering and fixing in vertical position in bore well, unplasticized PVC medium well-casing pipe of 150mm dia, conforming to IS:12818, including required hire and labour charges, fittings & accessories etc. all complete, for all depths, as per the direction of Engineer in charge.PWD SSR 2021-22 Item No.48.49				
	Rate as per SSR 2021-22/48.49	1.00		480.00	
	Deduct For labour amenities & cess 2%	0.02		9.60	-
	Net rate			470.40	-
	Add 4% Malegaon Bk Nagar panchayat charges	0.04		18.82	
	Add for Labour aminities and cess			9.60	-
	Completed Rate			498.82	Rmt

Malegaon Bk Nagar panchayat

Name of Work - Tree plantation to increase Green Cover of city for Malegaon Bk Nagar panchayat

Rate Analysis for Softscope

Sr. No.	Description of Item	% of	Basic Rate	Rate component	Unit
5	Supplying and erecting submersible pumpset of 3.75 KW/5 HP with 415 V, 50 c/s AC supply suitable for 100 mm dia. borewell suitable for 85 to 170 LPM discharge at 110 to 46 m head & (max. efficiency at 83 m head & 130 lpm) discharge & delivery pipe of Size-65 mm diameter with a necessary H type clamps as per specification no. WP-SMP				
	Rate as per PWD Elec. SSR 2021-22/12-2-70 (Page No. 216)	1.00		34,473.00	
	Deduct For labour amenities & cess 2%	0.02		689.46	-
	Net rate			33,783.54	-
	Add 5% Malegaon Bk Nagar panchayat charges	0.05		1,689.18	
	Add for Labour amenities and cess			689.46	-
	Completed Rate			36162.18	Nos
6	Providing and Supplying Blue MDPE pipes conforming to ISO 4427:1996 manufactured from virgin resin PE 80 Food grade compounded Raw Material having Blue Colour only with quality assurance certificate from quality agencies like WRC / CIPET (India) / DVGM / KIWA / SPGN etc. for usage in Drinking Water system. The cost shall include testing of all materials, Inspection charges, transportation up to store, transit insurance, loading, as specified and directed, unloading, stacking excluding GST levied by GOI & GOM in all respect, etc. complete as specified and directed. 63 mm				
	Rate as per MJP SSR 2021-22 (Page No. 118)	1.00		184.00	
	Deduct For labour amenities & cess 2%	0.02		3.68	-
	Net rate			180.32	-
	Add 4% Malegaon Bk Nagar panchayat charges	0.04		7.21	
	Add for Labour amenities and cess			3.68	-
	Completed Rate			191.21	Rmt
7	providing and errecting Drip irrigation pipe of 16 mm with Class I - 8 Years Life Drip Pipe 0.72mm wall thickness				
	Rate as per market rate	1.00		24.00	
	Completed Rate			24.00	Rmt
8	providing and errecting 4.5 Mm Online Dripper, For Drip Irrigation with all necessary fitting e.g bent, coupler etc completed				
	10% of pipe cost	1.00		2.40	
	Completed Rate			2.40	lumsum

Tree Officer

Malegaon Bk Nagar panchayat							
Name of Work - Tree plantation to increase Green Cover of city for Malegaon Bk Nagar panchayat							
Measurement							
I.No	Item	Nos	L	W	H	Total	Unit
1	Planting large flowering / shady trees(Ht.2 mtr.) Digging pit with size 0.9 X 0.9m X 0.9 m removing and conveying unwanted stuff to a required distance as directed. Filling the pit with approved distance as directed Filling the pit with approved height o	2200				5462	Nos
2	Providing Fixing 6 feet height M.S tree Guard With 2 feet dia with excavation etc. complete (As per rate Quotation)	1200				2000	Nos
3	Boring/drilling bore well of 300mm dia for casing/ strainer pipe, by suitable method prescribed in IS: 2800 (part I), including collecting samples from different strata, preparing and submitting strata chart/ bore log, including hire & running charges of a	1100	60			2340	Rmt
4	Supplying, assembling, lowering and fixing in vertical position in bore well, unplasticized PVC medium well-casing pipe of 150mm dia, conforming to IS:12818, including required hire and labor charges, fittings & accessories etc. all complete, for all dep	220	25			975	Rmt
5	Supplying and erecting submersible pump set of 3.75 KW/5 HP with 415 V, 50 c/s AC supply suitable for 100 mm dia. borewell suitable for 85 to 170 LPM discharge at 110 to 46 m head & (max. efficiency at 83 m head & 130 lpm) discharge & delivery pipe of Size	10				29	Nos
6	Providing and Supplying Blue MDPE pipes conforming to ISO 4427:1996 manufactured from virgin resin PE 80 Food grade compounded Raw Material having Blue Colour only with quality assurance certificate from quality agencies like WRC / CIPET (India) / DVGM /	1200				2418	Rmt
7	providing and erecting Drip irrigation pipe of 16 mm with Class I - 8 Years Life Drip Pipe 0.72mm wall thickness (Total No. tree x 3 m) spacing	6100	6000			6000	Rmt
8	providing and erecting 4.5 Mm Online Dripper, For Drip Irrigation with all necessary fitting e.g bent, coupler etc completed 10% of pipe cost	6100	6000			6000	Lumsum
9	Maintenance for Three year of planted of trees by open spaces including farm yard/ manure, pesticides watering etc. Complete. . AS per RA	3				3	Years
10	3 Mali For Maintained for 3 years (3 mali for 3 years=312 days x 3 years x 3 nos.)=2808 days	2808	3	6		2808	Days

Malegaon Bk Nagar panchayat

**Name of Work - Tree plantation to increase Green Cover of city for Malegaon Bk
Nagar panchayat**

Measurement

11	Material required for maintenace of tree planted= 1% of total cost	1				1	Lumsum
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Tree Officer

Malegaon Bk Nagar panchayat
Name of Work - Tree plantation to increase Green Cover of city for Malegaon Bk Nagar panchayat
Rate analysis for Tanker water supply
Maintenance for one year of planting of trees by road side and open spaces including farm yard/ manure, pesticides watering etc. complete.
The Rate Analysis for maintaining the 1000 trees
A) Watering-
Water Tanker 9000 Liter (PWD SSR 2021-22)
Hire charges of tanker per day
i) Tanker Charges Rs. 844.95/Hr. (PWD SSR 2021-22)
Rs. 844.95 x 4 (Hours) = 3380/ Day
II) Labor Charges Rs. 579 /day (PWD SSR 2021-22)
1 x 579 = 579
i) + ii) = 3380 +579 =3959 per day
for 9 month x 1 trips in day 2 week x per trip =
9 x 1 x 2 x 3959 =71,262..... (A)
B) Farm Yard Manure
After 6 month
1 x 500 x 0.1 = 50 cum
50 x 775 = 38750/-..... (B)
PWD Horti DSR 2016-17
C) Pesticides and Fertilizer, Mulching, old fixed tree guard maintenance, Tree pruning
Lum sump 9 month x Rs. 2000/ month = 18000/-For 9 month(C)
i.e Rate for maintenance, watering, farm yard manure, pesticides for 9 month for 1000 tress
A + B +C = 71262+38750+18000
128012
128012 for 1000 tress/ 9 month
128012/9/1000
14.22/ tree/month
For number of trees watering by Tankers
840
For 1 Year =12*840*14.22
143337.6
For three Years = 3 x 12 x 840 x 14.22

Malegaon Bk Nagar panchayat
Name of Work - Tree plantation to increase Green Cover of city for Malegaon Bk Nagar panchayat
Rate analysis for Tanker water supply
430012.8
Maintenance Of all trees for Three Years-
430012.8
Tree Officer

Name of Work - Nursery Development work for Malegaon Bk Nagar panchayat

RECAPITULATION SHEET

		RECAPITULATION SHEET				
	Cost of Softscope			Rs.	1650078.56	
			Total Rs.	Rs.	1650078.56	
	G S T on Work Portion		12%	Rs.	198009.43	
	Royalty Charges			Rs.	6833.16	
	Testing Charges			Rs.	3390.00	
	1% labor Insurance		1%	Rs.	16500.79	
			Total Rs.		1874811.93	
				Say As	1874812	/-

Tree Officer

Malegaon Bk Nagar panchayat					
Name of Work - Nursery Development work for Malegaon Bk Nagar panchayat					
Abstract					
Sr. no	Description of Item	Quantity	Rate	Unit	Total Amount in Rs.
1	Providing and fabricating structural steel work in rolled sections like joists, channels, angles, tees etc. as per detailed design and drawings or as directed including cutting, fabricating, hoisting, erecting, fixing in position making riveted / bolted /welded connections without connecting plates, braces etc. and including one coat of anticorrosive paint and over it two coats of oil painting of approved quality and shade etc. complete. SSR 2021-22 Item No.23.01	3.03	92,676.90	M.T.	2,80,968.54
2	Providing and fixing crimped with G.I. mesh and size 20 mm x 20mm 10 gauge to iron angle frame including welding crimp mesh to angle frame and steel flat, fixing the frame in its original position and oil painting etc. complete (excluding cost of structural steel) SSR 2021-22 Item No.44.21	107.20	648.46	Sqm.	69,515.00
3	Providing and fixing Argo shed net of green texture with light filtration capacity of 75% including all as directed by engineer in charge etc. complete. Rate As per Gem Portal	168.00	50.00	Sqm.	8,400.00
4	Providing and fixing mild steel grill gate as per the detailed drawing including hinges, locking arrangements and painting in three coats of oil paint of approved color and shade etc. complete.(weight 18 Kilogram. to 20 Kilogram. Per Sq.m.) Spec.Number: As directed by Engineer- in-charge.	6.00	1,992.15	Sqm.	11,952.88
5	Excavation for foundation in earth, soils of all types, sand, gravel, soft murum including shoring and strutting, dewatering as necessary and disposing off excavated stuff as directed etc. complete. (By/manual Means) a) Up to 1.50m lift Normal Rate	59.40	233.82	Cum	13,888.91
6	Providing dry/ trap/ granite/ quartzite/ gneiss rubble stone soling 15 cm to 20 cm thick including hand packing and compacting etc. complete	11.39	1,685.41	Cum	19,188.45

Malegaon Bk Nagar panchayat					
Name of Work - Nursery Development work for Malegaon Bk Nagar panchayat					
Abstract					
Sr. no	Description of Item	Quantity	Rate	Unit	Total Amount in Rs.
7	Providing and laying Cast in situ/Ready Mix cement concrete in M-10 of trap / granite/ quartzite/ gneiss metal for foundation and bedding including bailing out water, Steel centering, formwork, laying/ pumping, compacting, roughening them if special finish is to be provided, finishing if required and curing complete, with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	4.95	6,166.08	Cum	30,522.09
8	Providing and laying Cast in situ/Ready Mix cement concrete M-20 of trap / granite/ quartzite/gneiss metal for R.C.C. columns as per detailed designs and drawing or as directed including steel centering, formwork, cover blocks, laying/ pumping, compaction finishing the formed surfaces with cement mortar 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening if special finish is to be provided and curing etc. complete. (Excluding reinforcement and structural steel). with fully automatic micro process or based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	37.32	7,135.16	Cum	2,66,305.40
9	Providing and laying Cast in situ/Ready Mix cement concrete M-20 of trap / granite/ quartzite/gneiss metal for R.C.C. columns as per detailed designs and drawing or as directed including steel centering, formwork, cover blocks, laying/ pumping, compaction finishing the formed surfaces with cement mortar 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening if special finish is to be provided and curing etc. complete. (Excluding reinforcement and structural steel). with fully automatic micro process or based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	0.54	14,016.74	Cum	7,569.04
10	Providing and fixing in position TMT - FE - 500 bar reinforcement of various diameters for R.C.C. pile caps, footings, foundations, slabs, beams columns, canopies, staircase, newels, chajjas, lintels, pargis, copings, fins, arches etc. as per detailed designs, drawings and schedules. including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required complete	0.39	74,591.70	Cum	29,336.91

Malegaon Bk Nagar panchayat

Name of Work - Nursery Development work for Malegaon Bk Nagar panchayat

Abstract

Sr. no	Description of Item	Quantity	Rate	Unit	Total Amount in Rs.
	Labor and maintenance cost				
11	4 Mali For Maintained for 1 years (4 mali for 1 years=365 days x 1 year's x 4 nos.)=1460 days PWD SSR 2021-22/62-P.No-387	1460	611	Days	892060
	Total Amount				16,29,707.22
12	Material required for maintenance of tree planted= 1.25% of total cost	1.25%	16,29,707.22	Lum sum	20371.34
	Total Amount				16,50,078.56
13	Royalty				6833.16
	Total Royalty				16,56,911.72

Tree Officer

	Name of Work - Nursery Development work for Malegaon Bk Nagar panchayat							
	Measurement							
1	Item No-1							
	Providing and fabricating structural steel work in rolled sections like joists, channels, angles, tees etc. as per detailed design and drawings or as directed including cutting, fabricating, hoisting, erecting, fixing in position making riveted / bolted /welded sections without connecting plates, braces etc. and including one coat of anticorrosive paint and over it two coats of oil painting of approved quality and shade etc. complete. SSR 2021-22 Item No.23.01							
	Shed size							
		20 m	x	15 m				
				Nos	L/H	Total Qty	Unit	
	Main Support							
	Short Side							
	Side A			5	4	20	Rmt	
	Side B			5	4	20	Rmt	
	Long Side							
	Side C			5	4	20	Rmt	
	Side D			5	4	20	Rmt	
	Top Support							
	Short Side							
	Side A			7	15	105	Rmt	
	Long Side							
	Side C			5	20	100	Rmt	
	Middle Support							
	Long Side			2	20	40	Rmt	
	Short Side			2	15	30	Rmt	
					Total Qty	355	Rmt	
	Square Pipe weight per running meter							
	60 mm x 60 mm x 5 mm			8.54	kg/m			
					TOTAL WEIGHT		3031.7	kg
							3.03	MT
2	Item No-2							
	Providing and fixing crimped with G.I. mesh and size 20 mm x 20mm 10 gauge to iron angle frame including welding crimp mesh to angle frame and steel flat, fixing the frame in its original position and oil painting etc. complete (excluding cost of structural steel) SSR 2021-22 Item No.44.21							
				1	20	1.6	32	Sqm
				1	17	1.6	27.2	Sqm
				2	15	1.6	48	Sqm
						Total Qty	107.2	Sqm

	Name of Work - Nursery Development work for Malegaon Bk Nagar panchayat							
	Measurement							
	Item No- 3							
3	Providing and fixing Argo shed net of green texture with light filtration capacity of 75% including all as directed by engineer in charge etc. complete. Rate As per GeM Portal							
				2	20	2.4	96	Sqm
				2	15	2.4	72	Sqm
						Total Qty	168	Sqm
4	Item No- 4							
	Providing and fixing mild steel grill gate as per the detailed drawing including hinges, locking arrangements and painting in three coats of oil paint of approved color and shade etc. complete.(weight 18 Kilogram. to 20 Kilogram. Per Sq.m.) Spec.Number: As directed by Engineer- in-charge.							
	Gate			1	3	2	6	Sqm
5	Item No- 5							
	Excavation for foundation in earth, soils of all types, sand, gravel, soft murum including shoring and strutting, dewatering as necessary and disposing off excavated stuff as directed etc. complete. (By/manual Means) a) Up to 1.50m lift Normal Rate							
	shed footing							
			20	1.5	1.5	1.2	54	Cum
	gate footing							
			2	1.5	1.5	1.2	5.4	Cum
						Total	59.4	Cum
6	Item No- 6							
	Providing dry/ trap/ granite/ quartzite/ gneiss rubble stone soling 15 cm to 20 cm thick including hand packing and compacting etc. complete							
	Shed footing		20	1.5	1.5	0.23	10.35	Cum
	gate footing							
			2	1.5	1.5	0.23	1.035	Cum
						Total	11.385	Cum
7	Item No- 7							
	Providing and laying Cast in situ/Ready Mix cement concrete in M-10 of trap/ granite/ quartzite/ gneiss metal for foundation and bedding including bailing out water, Steel centering, formwork, laying/pumping, compacting, roughening them if special finish is to be provided, finishing if required and curing complete, with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)							
	shed footing		20	1.5	1.5	0.1	4.5	Cum
	gate footing		2	1.5	1.5	0.1	0.45	Cum
						Total	4.95	Cum

Name of Work - Nursery Development work for Malegaon Bk Nagar panchayat								
Measurement								
8	Item No- 8							
	Providing and laying Cast in situ/Ready Mix cement concrete in M20 of trap/ granite/quartzite/gneiss metal for bed blocks, foundation blocks and such other items including bailing out water, Steel centering, formwork, laying/ pumping, compacting, roughening them if special finish is to be provided, finishing uneven and honeycombed surface and curing etc. complete. The Cement Mortar 1:3 plaster is considered for rendering uneven and honey combed surface only. Newly laid concrete shall be covered by gunny bag, plastic, tarpaulin etc. (Wooden centering will not be allowed.), with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)							
	shed footing		20	1.3	1.5	0.87	33.93	Cum
	gate footing		2	1.3	1.5	0.87	3.393	Cum
						Total	37.323	Cum
9	Item No- 9							
	Providing and laying Cast in situ/Ready Mix cement concrete M-20 of trap / granite/ quartzite/gneiss metal for R.C.C. columns as per detailed designs and drawing or as directed including steel centering, formwork, cover blocks, laying/ pumping, compaction finishing the formed surfaces with cement mortar 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening if special finish is to be provided and curing etc. complete. (Excluding reinforcement and structural steel). with fully automatic micro process or based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)							
	gate Column		2	0.45	0.3	2	0.54	Cum
10	Item No- 10							
	Providing and fixing in position TMT - FE - 500 bar reinforcement of various diameters for R.C.C. pile caps, footings, foundations, slabs, beams columns, canopies, staircase, newels, chajjas, lintels pardis, copings, fins, arches etc. as per detailed designs, drawings and schedules. including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required complete							
	footing gate		3.393	100	kg/cum		339.3	
	column gate		0.54	100	kg/cum		54	
						Total	393.3	kg
						Say	0.3933	MT
Tree Officer								

Rate Analysis for Nursery / Malegaon Bk Nagar panchayat

Item No.	Description of Item	% of	Basic Rate	Rate component	Unit
1	Providing and fabricating structural steel work in rolled sections like joists, channels, angles, tees etc. as per detailed design and drawings or as directed including cutting, fabricating, hoisting, erecting, fixing in position making riveted / bolted /welded connections without connecting plates, braces etc. and including one coat of anticorrosive paint and over it two coats of oil painting of approved quality and shade etc. complete. SSR 2021-22 Item No.23.01				
	Rate as per SSR 2021-22	1.00		89,181.00	
	Deduct For labor amenities & cess 2%	0.02		1,783.62	
	Net rate			87,397.38	
	Add 4% Nagar panchayat charges	0.04	87,397.38	3,495.90	
	Add for Labor amenities' and cess			1,783.62	
	Completed Rate			92676.90	M.T.
2	Providing and fixing crimped with G.I. mesh and size 20 mm x 20mm 10 gauge to iron angle frame including welding crimp mesh to angle frame and steel flat, fixing the frame in its original position and oil painting etc. Complete (excluding cost of structural steel) SSR 2021-22 Item No.44.21				
	Rate as per SSR 2021-22	1.00		624.00	
	Deduct For labor amenities & cess 2%	0.02		12.48	
	Net rate			611.52	
	Add 4% Nagar panchayat charges	0.04	611.52	24.46	
	Add for labor amenities' and cess			12.48	
	Completed Rate			648.46	M.T.
3	Providing and fixing Argo shed net of green texture with light filtration capacity of 75% including all as directed by engineer incharge etc. complete				
	Gem Rate per Sqm. (Material)	1.00		50.00	
	Completed Rate			50.00	Sqm.
4	Providing and fixing mild steel grill gate as per the detailed drawing including hinges, locking arrangements and painting in three coats of oil paint of approved color and shade etc. complete.(weight 18 Kilogram. to 20 Kilogram. Per Sq.m.) Spec.Number: As directed by Engineer- in-charge.				
	Rate as per SSR 2021-22/23.09	1.00		1,917.00	
	Deduct For labour amenities & cess 2%	0.02		38.34	
	Net rate			1,878.66	
	Add 4% Nagar panchayat charges	0.04	1,878.66	75.15	
	Add for Labour amenities' and cess			38.34	
	Completed Rate			1992.15	Sqm.
5	Excavation for foundation in earth, soils of all types, sand, gravel, soft murum including shoring and strutting, dewatering as necessary and disposing off excavated stuff as directed etc. complete. (By/manual Means) a) Upto 1.50m lift Normal Rate				
	Rate as per SSR 2021-22/12.02	1.00		225.00	

Rate Analysis for Nursery / Malegaon Bk Nagar panchayat

Item No.	Description of Item	% of	Basic Rate	Rate component	Unit
	Deduct For labor amenities & cess 2%	0.02		4.50	
	Net rate			220.50	
	Add 4% Nagar panchayat charges	0.04	220.50	8.82	
	Add for Labor amenities and cess			4.50	
	Completed Rate			233.82	Cum
6	Providing dry/ trap/ granite/ quartzite/ gneiss rubble stone soling 15 cm to 20 cm thick including hand packing and compacting etc. complete				
	Rate as per SSR 2021-22/21.38	1.00		1,294.00	
	Deduct For labor amenities & cess 2%	0.02		25.88	
	Net rate			1,268.12	
	Add lead for Metal =1x340.69			340.69	
	Add 4% Nagar panchayat charges	0.04	1,268.12	50.72	
	Add for Labor amenities and cess			25.88	
	Completed Rate			1685.41	Cum
7	Providing and laying Cast in situ/Ready Mix cement concrete in M-10 of trap/ granite/ quartzite/ gneiss metal for foundation and bedding including bailing out water, Steel centering, formwork, laying/ pumping, compacting, roughening them if special finish is to be provided, finishing if required and curing complete, with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)				
	Rate as per SSR 2021-22/24.01	1.00		5,538.00	
	Deduct For labor amenities & cess 2%	0.02		110.76	
	Net rate			5,427.24	
	Add lead for Metal =0.2x355.50			71.10	
	Add lead for sand =0.47x723.17			339.89	
	Add 4% Nagar panchayat charges	0.04	5,427.24	217.09	
	Add for Labor amenities' and cess			110.76	
	Completed Rate			6166.08	Cum
8	Providing and laying Cast in situ/Ready Mix cement concrete in M20 of trap/ granite/quartzite /gneiss metal for bed blocks, foundation blocks and such other items including bailing out water, Steel centering, formwork, laying/ pumping, compacting, roughening them if special finish is to be provided, finishing uneven and honeycombed surface and curing etc. complete. The Cement Mortar 1:3 plaster is considered for rendering uneven and honey combed surface only. Newly laid concrete shall be covered by gunny bag, plastic, tarpaulin etc. (Wooden centering will not be allowed.), with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)				
	Rate as per SSR 2021-22/24.06	1.00		6,365.00	
	Deduct For labor amenities & cess 2%	0.02		127.30	
	Net rate			6,237.70	
	Add lead for Metal =0.6x355.50			213.30	

Rate Analysis for Nursery / Malegaon Bk Nagar panchayat

Item No.	Description of Item	% of	Basic Rate	Rate component	Unit
	Add lead for sand =0.425x723.17			307.35	
	Add 4% Nagar panchayat	0.04	6,237.70	249.51	
	Add for labor amenities and cess			127.30	
	Completed Rate			7135.16	Cum
9	Providing and laying Cast in situ/Ready Mix cement concrete M-20 of trap / granite/ quartzite/gneiss metal for R.C.C. columns as per detailed designs and drawing or as directed including steel centering, formwork, cover blocks, laying/ pumping, compaction finishing the formed surfaces with cement mortar 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening if special finish is to be provided and curing etc. complete. (Excluding reinforcement and structural steel). with fully automatic micro process or based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)				
	Rate as per SSR 2021-22/25.31	1.00		12,987.00	
	Deduct For labor amenities & cess 2%	0.02		259.74	
	Net rate			12,727.26	
	Add lead for Metal =0.6x355.50			213.30	
	Add lead for sand =0.425x723.17			307.35	
	Add 4% Nagar panchayat charges	0.04	12,727.26	509.09	
	Add for labor amenities' and cess			259.74	
	Completed Rate			14016.74	Cum
10	Providing and fixing in position TMT - FE - 500 bar reinforcement of various diameters for R.C.C. pile caps, footings, foundations, slabs, beams columns, canopies, staircase, newels, chajjas, lintels pardis, copings, fins, arches etc. as per detailed designs, drawings and schedules. including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required complete				
	Rate as per SSR 2021-22/26.33	1.00		71,778.00	
	Deduct For labor amenities & cess 2%	0.02		1,435.56	
	Net rate			70,342.44	
	Add 4% Nagar panchayat charges	0.04	70,342.44	2,813.70	
	Add for labor amenities' and cess			1,435.56	
	Completed Rate			74591.70	Cum

Tree Officer

**Name of Work - Nursery Development work for Malegaon Bk Nagar
panchayat**

LEAD CHARGE

Malegaon Bk Nagar panchayat

PWD S S R 2021-22

<i>Sr. No.</i>	<i>Description</i>	<i>Murum</i>	<i>Rubble</i>	<i>Crush Metal</i>	<i>Sand</i>
<i>1</i>	<i>2</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>
1	Avg. lead as per Quarry chart	5.00	15.00	15.00	45.00
2	Lead Charges	220.06	340.69	355.5	723.17
3	Extra lead charge	220.06	340.69	355.50	723.17

Tree Officer

Malegaon Bk Nagar panchayat

Name of Work - Nursery Development work for Malegaon Bk Nagar panchayat

Sr. No.	Item in Brief	Quantity	Factor	UNIT	Total			
					Murrum	Stone	Sand	Crush Metal
					Cum	Cum	Cum	Cum
1	2	4	5	6	7	8	9	10
1	Rubble Stone Soling	11.385	1.00			11.39		
2	M 20 Grade Concrete	37.323+0.54						
	Sand	37.863	0.425				16.092	
	Metal	37.863	0.60					22.718
3	P.C.C. M 10 with Natural Sand							
	Sand	4.95	0.47				2.327	
	Metal	4.95	0.20					0.99
			Total		0.00	11.39	18.42	23.71
					Murrum	Stone	Sand	Crush Metal
	Royalty Chart							
S.No	Material	Quantity	Rate Rs	Unit	Total Royalty			
1	Murrum	0.00	216.18	Cum	0.00			
2	Stone	11.39	216.18	Cum	2461.21			
3	Sand	18.42	237.37	Cum	4371.95			
	Total Royalty	29.80			6833.16			
<p style="text-align: center;">Tree Officer</p>								

Name of Work - Nursery Development work for Malegaon Bk Nagar panchayat

Laboratory testing Charges required for material testing on the basis of testing frequency and charges fixed byVigilance and quality control circle, or Govt or Collage Engineering for the current year

S. No	Particular Kind of Material	Qty	Unit	Name of Test	Frequency	No. of Test Req,	30% Test to be Taken in Lab	Rate	Amount
1	Prov. C. C. M-20	0	Cum	Compressive	One Set of 3	3	0.9	600	540
	Cement Cubes			Strength	Cubes Per 50 Cum				
2	Metal		Cum	1 a) Sieve Analysis, b) Water Absorption, c)Specific Gravity, d) Impact Value, e) Crushing Value		2	1	2300	1380
				2 a) Flakiness Index / b)Elongation Index		1	1	750	750
3	Sand		Cum	1) Fineness Modulus, (Sieve Analysis), 2) Slit Content		2	1	1200	720
						Total Testing Charges			3390

Tree officer

OPEN SPACE LIST

अ.क्र.	नाव	गट न.	ओपन स्पेस
01	प्रफुल भिमदेव तावरे	643	1776 m ²
02	निलेश दिलिप जगताप व इतर 2	672 पै.	900 m ²
03	शिवाजी गुलाबराव तावरे	229 पै.	801.34 m ²
04	जयकुमार छगनलाल मुथा	662 पै.	4800 m ²
05	जयकुमार छगनलाल मुथा	662 पै.	5688.14 m ²
06	राजे वसुंधरा अमरसिंह जाधवराव	691,692,694,695,696,697 ,698,702	3920 m ²
07	सचिन रघुनाथ भोसले	215 पै.	910.12 m ²
08	चेअरमन बारामती ता. स.दुध उत्पादक संघ	1107 (जुना) 551/2, 551/3	2420 m ²
09	श्रीमती विमल देव	15 पै.	770 m ²
10	विमल यशवंत तावरे	15 पै.	839.97 m ²
11	दत्तात्रय दिनकर देवकाते	690 पै.	1370 m ²
12	सिताराम विठ्ठल कारंडे	16/1	450.56 m ²
13	विरेद्रसिंह मानसिंहराव जाधवराव	698	1626.44 m ²
14	सचिदानंद दत्तात्रय माळवदकर	240 पै.	400 m ²
15	आबासाहेब महादेव कोंढाळकर	166	400 m ²
16	संतोष ज्ञानदेव चाचरे	560	252 m ²
17	रविंद्र दिलिप धुमाळ	559 पै.	250 m ²
18	अनुजा राजेंद्रकुमार गायकवाड	643	1776 m ²
19	मोहनराव नाथबुवा जगताप	446/4	646 m ²
20	निनाद भिमराव माने	570/12 पै.	380.10 m ²