

DCB BANK



Ambivli Biodiversity Park Development Project

Location: Ambivli Biodiversity Park, Near
Ambivli railway station, Ambivli Titwala road,
Kalyan, Maharashtra, 421102.

19°15'57.6"N 73°11'12.9"E

Google map link: [Click](#)

Project Duration: April 2022 – March 2023

Project Reporting Period: January–March
2023

Project report No.: 4

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AMBIVLI BIODIVERSITY PARK DEVELOPMENT PROJECT
Quarterly Report No. 4 (January - March 2023)

1. PROJECT HIGHLIGHTS

- 5869 saplings including herbs, shrubs and trees are surviving at the site with a survival rate of 60.8%. Compared to 7992 saplings surviving in March 2022 and the compensatory plantation of 1654.
- The total number of species sighted at site has increased from 197 to 322 (comparison of March 2022 - 2023). The total plant species has increased from 72 to 98, insect species has increased from 48 to 110 and arthropod species has increased from 7 to 15, amphibian species is same as before 3 species, reptile species has increased from 14 to 20 species, bird species has increased from 46 to 65 and mammal species has increased from 7 to 11.
- Most of the herbs and shrubs in the thematic gardens have started blooming and attracting a good number of insect pollinators and birds. Species like Mulberry, Singapore cherry, Bryophyllum, Jamaican spike, Rangoon creeper, Wedelia, Jacomentia and Shoe flower are flowering profusely and some are also fruiting.
- The butterfly activity can be seen at its peak during post monsoon season. It is less during summer, however Blue species of butterflies can be seen often during summer. Carpenter bees can also be seen fluttering around the Calotropis flowers. And honey bees around the flowering plants.
- 774 saplings in the nursery have grown well. We have collected native seeds from the wild to be sown into sapling bags and grown in nursery.
- 150 corporate and community volunteers were engaged at the site during this year for plantation and plantation maintenance activities and nature awareness programme.

2. SUMMARY

The Kalyan-Dombivli Municipal Corporation (KDMC) created a park on 40 acres of bare forest land in Ambivli. For many years, KDMC intended to convert the park into a Biodiversity Park in order to raise awareness and environmental protection, as well as sensitivity to the environment and biodiversity among the residents. KDMC has been planting trees in the area for the past five years. However, with the assistance of DCB Bank, the iNaturewatch Foundation began the conversion of the park into a biodiversity park from April 2021 to March 2022 by planting 9884 saplings in six theme base zones and the boundary wall area. A biodiversity survey was also conducted previously, which revealed that the site supports 197 species, 72 of which are plants and 125 of which are animals (55 insects & arachnids, 3 amphibians, 14 reptiles, 46 birds, 7 mammals).

As a result, as part of this project, the iNaturewatch Foundation is caring for the 8337 saplings that are still alive in the thematic zones and along the boundary area, as well as developing nature trails, signage, and activity stations as an educational tool to raise awareness about biodiversity and its importance in the local community, as well as developing the site into an eco-tourism zone. It will also run community outreach programmes.

During the first two quarters of 2022 (Apr-Jun and Jul-Sep), 1604 saplings were planted at the site, with 116 saplings planted to meet the plantation target of 10,000 and 1488 saplings planted as compensatory plantation. Community and corporate volunteering programmes were also held on-site to raise awareness.

During the third and fourth quarters concentration was more on the maintenance work and the educational installations. We also conducted the biodiversity survey, plantation, socio economic survey, carbon sequestration activity, plantation review, and community engagement programmes. De-weeding, grass cutting, developing fire lines, mulching, and watering were all part of the maintenance work. We developed and installed 150 plant tags in the thematic gardens. Sixty signages on different species of plants and animals observed at the biodiversity park were developed and installed on the 3 nature trails which were developed for the visitors to move around the park. Ten exhibits are also developed on different themes like butterflies, insects, birds and so on. Different types of wildlife installations were installed in the thematic gardens like bird nest, feeders, reptile house and so on. We have also developed activity stations i.e Nature bingo based on 10 themes. We also calculated the carbon sequestration for the tree saplings which have grown 10cm or more in girth. It was found that 815 kgs of carbon was stored in 236 tree saplings. In this report we have covered the project activities carried out throughout the year.

3. INTRODUCTION



Figure 1: Project Site

Ambivli falls between the Kalyan and Kasara of Thane district, Maharashtra. The project site is adjacent to the NRC Company on Titwala Ambivli Road. A local Mohan village is situated at the back of the site in the Thane district. Hills surround the site, plateau and marshy land and towards the front are city roads and railways. Adjacent to the Ambivli site, there flows a Kalu river and Ulhas River. The expanse of the Ambivli biodiversity park is around 40 acres. KDMC intended to develop the park into a Biodiversity Park for many years, to bring awareness and environmental protection or sensitivity towards the environment or biodiversity among the residents. For the last five years, KDMC has been planting trees in the area. However, it is primarily a monoculture-based plantation. Hence iNaturewatch Foundation was appointed to convert the area into a biodiversity park in collaboration with KDMC with the funds from DCB Bank.



Figure 2: Nature trail Pathway with signage

3.1 Location: Ambivli Biodiversity Park was developed on barren forest land of around 40 acres in Ambivli. The site is adjacent to the NRC Company on the Titwala, Ambivli Road. It is situated near Ambivli railway station near Mohane village.

- **Address:** Ambivli Biodiversity Park, Near Ambivli railway station, Ambivli Titwala road, Kalyan, Maharashtra, 421102.
- **GPS coordinates:** 19°15'57.6"N 73°11'12.9"E
- **Google Map:** [Click](#)



Figure 3: Map preview of project site

3.2 Need for undertaking the Project

- **Problem:** The Kalyan-Dombivli Municipal Corporation (KDMC) has been developing a park on a barren forest land of around 40 acres in Ambivli. KDMC intended to convert the park into a Biodiversity Park for many years, to bring awareness and environmental protection or sensitivity towards the environment and biodiversity among the residents. For the last five years, KDMC has been planting trees in the area however the plantation was a monoculture which usually does not support a good amount of biodiversity.
- **Hypothesis:** A mix plantation of herbs, shrubs and trees of around 10,000 saplings could increase the ground cover and improve the local biodiversity by establishing a proper habitat in the area. Developing thematic zones like butterfly, bird, bee, bat, medicine, and astral garden, will help in supporting and increasing the local biodiversity.
- **Implementation:** 10000 plant saplings were planted in 6 thematic zone as well as the boundary wall area and the pathway. A pond is also developed to support the amphibian

life.

- **Impact:** The green cover has increased due to the plantation and has started attracting the local wildlife. This resulted in increase of biodiversity as well. A good number of butterflies can be seen at the sight.

4. PROJECT GOAL: To establish Ambivli Biodiversity Park through Habitat Enrichment Methods.

5. PROJECT OBJECTIVES

- To conduct seasonal biodiversity surveys to assess the biodiversity of the park and monitor the increase in species diversity.
- To carry out compensatory plantation of 1134 saplings.
- To develop 3 nature trails (1 km long) with 10 activity stations
- To develop 60 nature trail tree signages, 150 plant signages and 10 exhibits for nature education
- To conduct community engagement programmes for 350 target audience

6. PROJECT TIMELINE: The project duration is one Year (Apr 2022- Mar 2023) and following is the Table 1 with detailed Activity Calendar for the quarter January to March 2023.

Table 1. Activity Calendar for Oct-dec 22 & Jan-mar 23

Sr No.	Project activity	Activity description	Timeline
	Watering	Watering of Plants in thematic gardens, boundary wall sides, main pathway and nursery.	1 st January –31 st March 2023
	De-weeding	De-weeding activity carried out near boundary plantation	1 st January – 4 th January 2023
	Site Maintenance	Mulching activity continued in thematic garden	5 th January – 12 th January 2023
	Site Maintenance	New water pipes purchased to water the boundary side plantations.	12 th January
	Site Maintenance	Water tanker was ordered	13 th January
	Pond	Pond liner was bought and installed ad there were cracks developed in the pond which caused leakage problem.	15 th January
	Site Maintenance	Repairing of tree guards of boundary plantations	16 th – 19 th January
	Site Maintenance	Seed collection of plants like Holy Basil & Crotalaria	20 th January 2023
	Animal Welfare fortnight day Celebration	A stray dogs vaccination drive was carried out at Ambivli village with help of P.A.W.S NGO as a celebration of Animal Welfare Fortnight Day	22 nd January 2023

	Site maintenance	Tree guard repairing	27 th – 31 st January 2023
	Biodiversity Survey	Ms. Roma Tripathi conducted the herpetology survey at the site	28 th January 2023
	Forest Nursery	Preparation of seedling trays of different flowering species seeds.	3 rd February 2023
	Man- made Forest Fire	Someone lit up the fire at site	7 th February 2023
	Nursery maintenance	Seedling trays were prepared for different flowering plants e.g. balsam.	8 th -9 th February 2023
	Site maintenance	Water tanker was ordered in order to refill the tank.	10 th February 2023
	Site maintenance	Inventory of site tools and materials was made.	12 th February 2023
	Forest Nursery	Collection of seeds from the thematic garden.	13 th February 2023
	Site maintenance	Forest nursery maintenance.	14 th February – 18 th February 2023
	Pond	The pond was repaired in order to seal its crack.	19 th February 2023
	Forest Nursery	Sed collection	20 th – 21 st February 2023
	Man-made fire	Some unknown lit up our nursery green net at mid night	22 nd February 2023
	Pond maintenance	The repaired pond was filled and checked for water leakage.	23 rd – 25 th February 2023
	Site maintenance	Bamboo trellis for thematic garden initiated on site	26 th February 2023
	Site maintenance	Extra watering to the boundary side plantations (Which was burnt during fire at site)	27 th February 2023
	Site maintenance	60 Nature trail signages were installed	1 st -14 th March 2023
	Water irrigation system	As the solar pump was stolen the water tanks were shifted to a higher elevation and the dripline is connected to the tank. The drip line burned in forest fire was replaced and repaired. Also new line was added for the new plantation done in the butterfly garden. The work is not yet completed and is ongoing due to the theft of the materials brought for the work.	3 rd -31 st March 2023

	Biodiversity survey	Dr. Ketki Marthak conducted the fourth quarter bird survey.	4 th March 2023
	Water irrigation system	Digging and installation of new drip line pipes take place by removing damaged one.	5 th March 2023
	Theft of site material	Someone broke the lock of cabin and theft dripline materials, our watering pipes and bundles of green net.	8 th March 2023
	Pond development	For regenerating pond life, aquatic plants were brought and planted in the pond.	9 th March 2023
	De-weeding	De-weeding of overgrown and dried grass initiated at butterfly garden	10 th March 2023
	Water irrigation system	New connection of drip line to water tank done.	11 th March 2023
	Site maintenance	8 bamboo gate trellis were developed	12 th March 2023
	Theft of site material	Someone broke the cabin lock at night and stole maintenance tools and other materials.	13 th March 2023
	De-weeding	De-weeding of butterfly and bat garden fence	15 th March 2023
	Pathway development for Nature trail	Nature trail pathway measurement were taken for pathway development.	15 th March 2023
	Forest Nursery	Overgrown saplings from seedling trays were transferred to sapling bags.	15 th March 2023
	FIR complaint	An complaint was given at the local police station for the theft incident which occurred twice at the site.	15 th March 2023
	De-weeding	De-weeding was done in thematic garden	16 th 17 th March 2023
	Site maintenance	Colouring of Bamboo trellis work.	17 th march 2023
	Site maintenance	Water tanker ordered	18 th march 2023
	Pathway development for Nature trail	The nature trail pathway development work started by clearing the path and edging the pathway by stone pitching. Labourers were hired for the same to work along with the caretakers.	27 th March 2023
	Site inspection	Dr. Shubhalaxmi visited the site for site review and insect survey.	31 st March 2023

Wildlife installation	Wildlife installations like bird nests, bird feeders, bird bath, Owl nest, mammal and reptile house.	31 st March 2023
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7. PROJECT IMPLEMENTATION STRATEGIES

7.1 Project Timeline: Following is the Table 2 with project timeline

Table 2: Project Timeline

Project Activities	Y2				Milestones
	Q1	Q2	Q3	Q4	
Conducting seasonal biodiversity surveys	X	X	X	X	Seasonal biodiversity data is available
Maintenance of Plantation	X	X	X	X	Compensatory plantation done
Maintenance of Irrigation	X	X	X	X	Plants are procured
Maintenance of Pathway	X	X	X	X	Irrigation mechanism is in place
Maintenance of Project site	X	X	X	X	De-weeding, mulching, fire protection is done
Development of Signages	X				Nature trail and thematic garden signages completed along with garden installations
Development of Exhibits		X			Exhibits installed
Development of Activity stations			X		Activity stations established
Making of Project Video	X		X		Draft video is completed
Community Participation Programmes	X	X	X	X	Corporate employees and local community members are engaged.
Project Review Reporting	X	X	X	X	Quarterly reports are submitted

7.2 Project Team

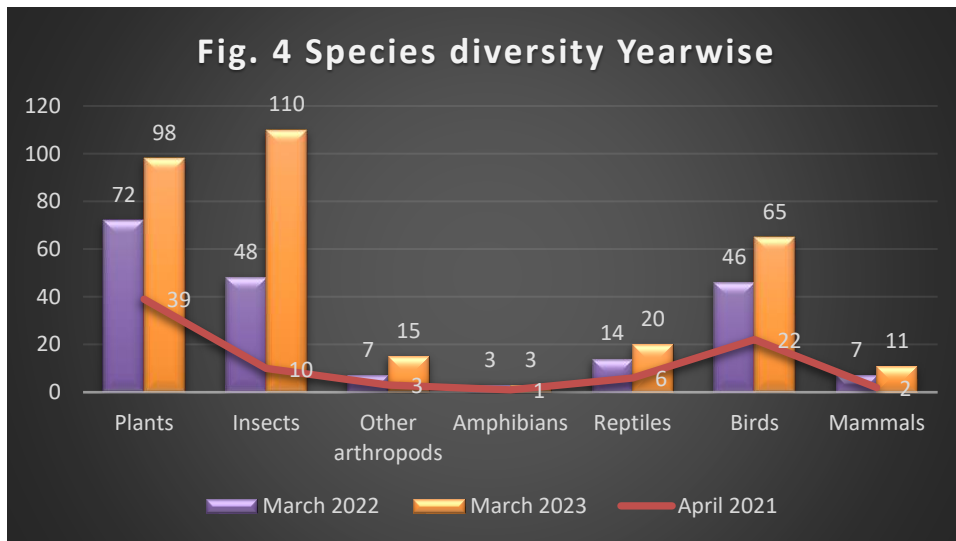
Sr. No.	Name	Designation/Post
1	Dr. V. Shubhalaxmi	Project Coordinator & Entomologist
2	Mr. Isaac Kehimkar	Butterfly Expert & Naturalist
3	Dr. Ketaki Marthak	Bird Expert
4	Dr. Shreya Bhanap	Botanist
5	Ms. Gauri Gurav	Botanist
6	Mr. Pratik Chile	Bird Expert
7	Ms. Priti Choghale	Projects Manager
8	Ms. Roma Tripathi	Project Officer
9	Santosh Nishad	Site supervisor
10	Nanhu Nishad	Site caretaker

11	Gaurav Waghe	Site caretaker
12	Arun Waghe	Site caretaker
13	Sainath Waghe	Site caretaker

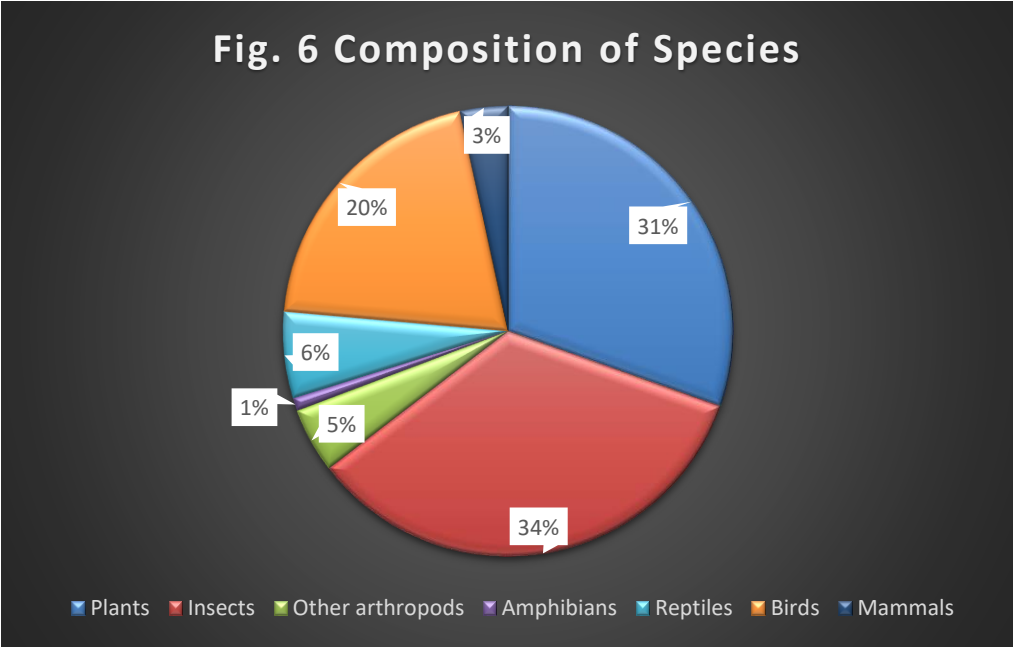
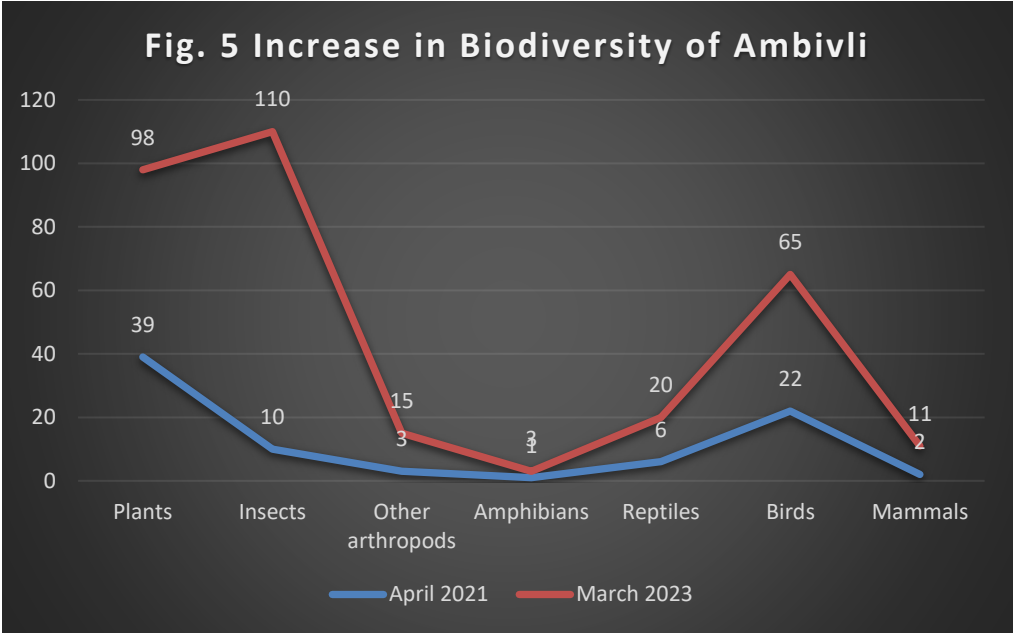
7.3 Project Activities: Following are the details of the project activities conducted during the fourth quarter from January to March 2023.

7.3.1 Conducting Seasonal Biodiversity Survey: A seasonal biodiversity survey was conducted to assess the biodiversity at the site, for plants, mammals, birds, insects, reptiles and amphibians. During this quarter, the site was surveyed for its winter biodiversity.

The biodiversity surveys, recorded a total of 322 species at the site. The total number of species sighted at site has increased from 197 to 322 (comparison of March 2022 - 2023). The total plant species has increased from 72 to 98, insect species has increased from 48 to 110 and arthropod species has increased from 7 to 15, amphibians is same as earlier 3 species, reptiles has increased from 14 to 20, birds species has increased from 46 to 65 and mammal species has increased from 7 to 11. Following is the graph of the species comparison of April 2021, March 2022 and March 2023.



If compared with before and after scenario as per Fig.5, there is an increase in species of 23% in plants, 6% in insects, 14% in other arthropods, 17% in amphibians, 18 % in reptiles, 20 % in birds, and 11% in Mammals. The species composition as Fig. 6 shows insect diversity (34%) among the animals followed by birds (20%)



The project site is home to numerous species of flora and fauna, some of which have declining populations due to habitat loss, poaching, and wildlife trade, among other factors. Example Forest Owlet, Monitor lizard and so on.

This biodiversity data is being fed regularly on the iNaturalist portal (<https://www.inaturalist.org/projects/ambivili-biodiversity-park>). iNaturalist is a social network of naturalists, citizen scientists, and biologists built on the concept of mapping and sharing observations of biodiversity across the globe. Following are the details of the survey and the species observed in this quarter Table 3.

Table 3: List of Number of Species of Flora and Fauna observed per quarter and total

Sr.No.	Type	Total Species (March 22)	Total Species (March 23)	Apr-Jun'22	Jul–Sept'22	Oct-Dec'22	Jan-Mar'23
1	Plants	72	98	41	44	53	23
2	Animals	125	224	36	73	148	113

- Plant survey:** The plant surveys were conducted by Dr Shreya Bhanap and Ms. Gauri Gurav. All the plants observed during the survey were commonly seen at the site. The species of plants observed at the site has increased to 98 species during the year compared to the 72 species of plants observed in March 2022. During the fourth quarter survey Lapdu (*Apluda mutica*) grass was found in highest number i.e. 108. Its a perineal herb considered as good fodder to herbivorous mammals like Indian hare and Cattles.



Figure 7: *Apluda mutica*

Following is the Table 4 with species numbers and the detailed list of Plants observed during the survey and the photographic representation are enclosed as Annexures 1, 2 & 3.

Table 4: List of Plant Species observed at site (March 2022- March 2023)

Sr. No	Type	Total species (April 21)	Total species (March 22)	Total species (March 23)	(Apr – Jun'22)	Jul – Sep'22	Oct-Dec22	Jan-Mar'23
1	Herbs	14	39	61	8	13	31	16
2	Shrubs	6	10	10	9	7	2	3
3	Climber	6	7	11	8	8	4	1
4	Trees	13	16	16	16	16	16	3
5	Fungi	0	0	0	0	2 (unid)	0	0
Total		39	72	98	41	44	53	23

- Animal survey:** Quarterly surveys were carried out to document the seasonal faunal diversity at the site. Survey was done for arthropods, amphibians, reptiles, birds and mammals. Following is the table with the number of animals species observed at site.

Table 5: Number of Animal Species observed at site (March 2022- March 2023)

Total species April 21	Total species Mar22	Total species March 2023	Apr-Jun22	Jul22-Sep22	Oct22-Dec22	Jan 23-Mar23

Insects	10	48	110	9	26	77	40
Other arthropods	3	7	15	0	4	6	5
Amphibians	1	3	3	0	2	3	3
Reptiles	6	14	20	3	8	10	9
Birds	22	46	65	21	30	49	49
Mammals	2	7	11	3	3	3	7
Total	44	125	224	36	73	148	113

- Insect and other arthropods Survey:** Dr V Shubhalaxmi conducted the insect survey on 31st March. The species of insects observed at the site has increased to 110 species during the year compared to the 48 species of insects observed in March 2022. Apart from this other arthropod like spiders, scorpions and millepedes were also observed at the site. A total 15 species of other arthropods were observed at the site compared to 7 species observed in March 2022. The number of insects and arthropods have increased to 125 (March 2023) compared to 55 species observed during March 2022. The highlight of the survey was the sighting of the Death's head hawk moth. Overall, there is also an increase in the number of insect populations this year, indicating a healthy ecosystem. The detailed list of insects and other arthropods observed during the survey and the photographic representation are enclosed in *Annexures 4 & 5*.
- Herpetofauna survey:** Herpetology is the study of amphibians and reptiles. The species of amphibians observed at the site is same as compared to the 3 species of amphibians observed in March 2022. However, the species of reptiles has increased to 20 compared to the 14 species observed in March 2022. The number of herpetofauna sighting at the site has increased this year. The sighting of the Red-tailed skink was the highlight of the survey which wasn't recorded previously at the site. These skinks occur mostly in undisturbed patches of the forest. The survey details and the photographic



Figure 8: Death's head hawk moth



Figure 9: Red-Tailed skink



Figure 10: Indian spotted eagle

representation is enclosed as *Annexure 6 & 7*.

- **Bird Survey:** Dr. Ketki Marthak, conducted the bird surveys at the site. The fourth quarter survey was conducted on March 4, 2023. It was observed from the survey data that the species of birds observed at the site has increased to 65 species during the year compared to the 46 species observed in March 2022. The number of bird species observed at site has increased by 19 species in this year. The highlight of the survey was the sighting of the Greater spotted eagle which was hovering over the sky and mobbed by the crows and black drongos. The list of birds observed during the survey and the photographic representation are enclosed in *Annexures 8 & 9*.

- **Mammal Survey:** We recorded a total 11 species of mammals during this year. As per the previous records (March 2022) a total of 7 species of mammals were observed at site. The total number of mammal species observed at the site has increased to 11 during this year (March 2023). During the fourth quarterly survey, it was observed that the number and activity of Black-naped hare and Jungle cat had increased. It indicates a good health of the ecosystem where we can observe the prey and predator interaction. The scat was also found in the previous quarter. The detail list and the photographic representation is enclosed in *Annexures 10*.



Figure 11: Jungle cat scat



Figure 12: Alexandrine Parakeet

Some important sightings: The project site is home to numerous species of flora and fauna, some of which have declining populations due to habitat loss, poaching, and wildlife trade, among other factors. Alexandrine Parakeet (*Palaeornis eupatria*) has most recently been assessed for The IUCN Red List of Threatened Species in 2016 and is listed as Near Threatened. The Forest Owlet (*Athene blewitti*) has been listed as Endangered under criteria C2a(i).

7.3.2 Socio Economic Survey

Firewood is a solid biofuel that is frequently utilised for cooking by the majority of tribal people that live near forests or cannot afford LPG cylinders. A survey was conducted to know the key elements in the firewood consumption and other non-timber product habits of populations living near the Ambivali Biodiversity Park and forest area.

The study was conducted using a primary questionnaire. Lady in every house who goes to the forest on a regular basis to collect firewood and other non-timber goods was interviewed based on the questionnaire. 40 responses were documented during the survey.

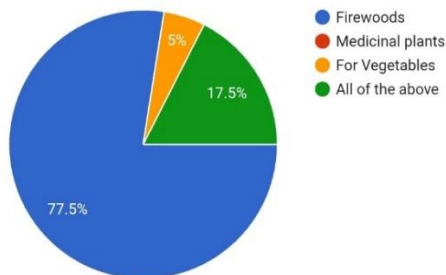


Figure 13: Ms. Roma Tripathi during the survey

- 95% of the communities have been living and relying on the forest for more than 30 years.
- Almost 80% of the women worked as housewives, with the primary responsibility of collecting firewood from the neighbouring forest.
- About 90% of families rely on firewood and non-timber items from the forest.
- 77% of our community's families rely solely on firewood, while the remaining population relies on non-timber items such as firewood gathering.
- The majority of them visit every day for collection, with only a handful visiting weekly.
- Almost 70% of the population lacks access to LPG, with the remainder relying on firewood as a backup.
- During the survey, we discovered that the majority of them cut or utilise dead tree material but do not kill live trees in the forest, and only a few are restricted to certain species for firewood gathering.
- Up to 70% of them are aware about the Inaturewatch Foundation's Plantation, and they are eager to collaborate with us on this initiative.

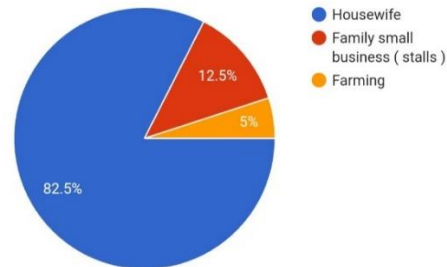
For what things you are dependent on the jungle?

40 responses



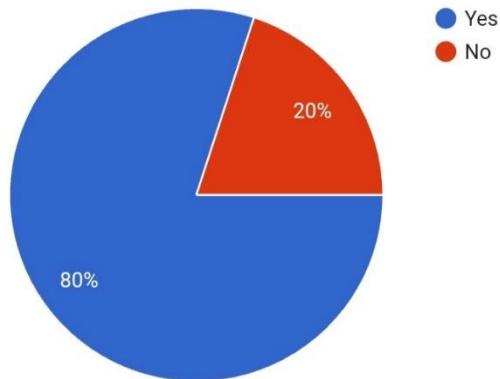
Job

40 responses



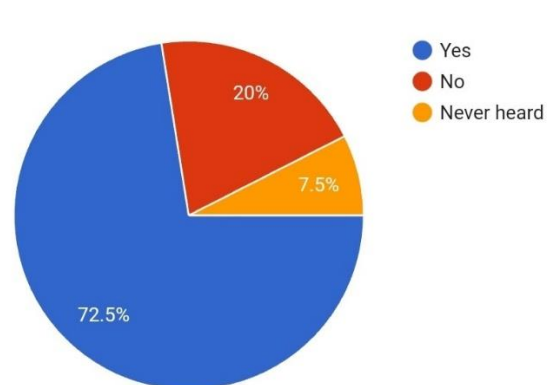
Are you willing to work with us on this project?

40 responses



Are you aware that Inaturewatch foundation initiated the plantation at Ambivli?

40 responses



The main goal was to estimate the percentage of communities that are completely reliant on the forest, and now that they are becoming more aware of our research, there are opportunities to provide jobs and other services to these communities in the future.

7.3.3 Plantation Maintenance

- **Watering:** The plants were watered regularly throughout the quarter. Tanker water was bought for the same as the solar pump is not yet replaced by KDMC neither the dripline. Caretakers manually watered the plants using buckets as the drip line was not functional and some part of it also got burned during the forest fire.



Figure 14: Tanker water filling in tanks



Figure 15: Caretakers watering the plants using buckets

- Drip line pipe installation:** In order to solve the water crisis at the site and also due to the theft of a solar water pump, our previous drip line network got shut down. Hence, we decided to shift the water tanks at a high elevation point and and repair the whole drip line network and connect it to the water tanks. Hence the dripline in the thematic gardens have started working however we still need to buy tanker water for watering purpose. This system helped us to water the thematic gardens and boundary wall side plantation.



Figure 16: Dripline work connecting water tanks

- De-weeding:** Following the post-monsoon, the overgrown grass that had covered the site and got dried out under scorching heat. As a result, de-weeding activities in thematic gardens were initiated in order to remove the wild grass to install the drip line pipes as well to prevent any future fire hazardous.



Figure 17: De-weeding

- Creating fire-line:** The overgrown and dried grasses all around the plantations increase the risk of catching fire or forest fire, in order to prevent such hazardous condition creating fireline is important. Plantations along fences and boundary walls are more prone to catching fire, so we created a vegetation-free fire line of approximately 5-6 metres in width around the edge of the plantation to prevent ground fire entry.



Figure 18: Fire line

- Mulching and Compost:** A mixture of cocopeat and compost was added to the plants to enhance the growth rate of the saplings. The cocopeat will act as mulch and help in retaining the soil moisture. It will get converted into compost as it decomposes. Mulching reduces the risk of dehydration of plants. The weaker saplings with slow growth rate were also identified and more compost was added to them.



Figure 19: Caretakers Carrying Compost bags



Figure 20: Caretakers adding mixture of mulch and compost to saplings

- **Tree guard and Nursery Repair Works:** Tree guards damaged due to the forest fire and vandalism were repaired by the caretakers. New tree guards were installed for the saplings whose tree guards had got burn in the forest fire. For this, material like bamboos, green net tarpaulin, rope, zip ties etc. was procured as and when required at the site. As we also faced issues of vandalism and theft, caretakers had to constantly look into repairing work.



Figure 21: Caretakers repairing tree guards

Also the nursery which was set on fire by someone was also repaired by the caretakers by changing the green net cloth.



Figure 22: Damaged Nursery & Repair work

- **Seed collection:** Winter onwards, many plants started flowering and fruiting hence the perfect time to collect seeds. Caretakers have collected seeds of Palash, Croton, Holy basil, and Jamaican blue spike. The collected seeds were maintained in an airtight Ziplock container for using it in a future plantation.



Figure 23: Caretakers collecting seeds

- **Pond development:** Water resource is an important part of habitat restoration, in order to create a habitat for aquatic flora and fauna we have developed and maintained a pond in the butterfly garden. There was a leakage issue with the pond hence we had added a pond liner to stop the leakage however it didn't work hence we got the pond repaired with a layer of cement plastering. Aquatic plants like water lily, canna, cat tails are planted in the pond. One can observe dragonfly nymph case at the pond indicating the Lifecycle of dragonflies.



Figure 24: Adding pond liner



Figure 25: Pond

- Nursery Care:** Currently, 774 saplings are growing and being cared for in the nursery during this quarter. During the hot and dry days, the saplings were watered on a regular basis. However, some of the saplings died as a result of the extreme heat and water scarcity. To plant new saplings of flowering species, some flowering seeds were bought and sowed in the seedling trays with the utmost care. Total of 21 saplings trays were made of varieties of flowering seeds. Table 5 provides information on the species growing in the nursery.



Figure 26: Caretakers watering and taking care of saplings in nursery

- Seedling tray preparation:** Caretakers made seedling trays of different species of flowering seeds which will be first taken care in nursery then we be used in future plantations. There was 21 seedling trays were made of 5-6 species of flowering plants.



Figure 27: Growing saplings from seeds using seedling trays and transplanting them in sapling bags

Table 5: List of saplings & Seedling trays developed in the nursery

Sr. No.	Plant Name	Number	Sr. No.	Plant Name	Number
From Cuttings			From Seeds		
1	Shankasur	3	1	Mahua	59
2	Kadu Mehendi	54	2	Kanchan	10
3	Wedelia	60	3	Wild Kajur	31
4	Hadjod	11	4	Mango	66
5	Jamaican blue spike	35	5	Indian elm	10
6	Wandering jew	30	6	Jamun	3
7	Agave	39	7	Balsam	55
8	Tamarind	1	8	Morning Glory	71
9	Russelia	168	9	Sunflower	2
10	Krishna Tulsi	36			
11	Coleus	5			

12	Wedelia	25			
	Grand Total		774		
Seedling trays of flowering seed					
1	Portulaca sp	5			
2	Zinnia sp	5			
3	Hollyhocks sp.	1			
4	Balsam rose sp	4			
5	Sunflower	2			
6	Gomphrena	2			
7	Morning glory	2			
Total trays		21			

- **Nature trail pathway development:** Three pathways were selected and marked on the GPS for the development of the nature trails. They are named as Tree trail, Butterfly trail and Bird trail. Sixty interesting points including flora and fauna were marked on these trails with the help of GPS and designed different trails with respect to flora and fauna. The pathway is little offroad and passes through some dense wilderness patches away from the main site pathway. Hence these pathway edges were demarcated with stone pitching to help the visitors in the wild patches of the forest. Also the pathway was leveled in some places for the ease of walk.



Figure 28: Bird trail



Figure 29: Stone pitching on pathway edges

- **Bamboo and Russelia trellis:** The entrance gate of the thematic garden were designed and replaced with bamboo trellis. A carpenter was hired for the same. The bamboo trellis were then painted green using oil paint. These will be covered with climbers by planting the climbers at its base to give an aesthetic natural entrance look for the visitors. In order to support russelia plants, trellis were made around them to give them support and for the look.



Figure 30: Bamboo trellis at Gate and Russelia trellis

- **Wildlife installations:** We have installed different Bird nest and bird water feeder, small mammals nest, nest for frogs, toads and reptiles, fruit bait for butterflies also water feeder for bees and insects. Our aim is to create ideal mini-ecosystem in which nature can flourish. It would be really helpful to observe and have a close look at natural patterns of animals. Photographs of different installations are enclosed as *Annexure 11*.



Figure 31: Installing Owl box

- **Nature Trails and signage development:** As previously reported, we have created three Nature Trails and marked 60 trail points with GPS coordinates. The English and Marathi text for the signage was developed, and the designing was done. The signages were fabricated and sixty bilingual signages were installed on the three trails. These includes three title trail signage and 57 trees, insects, birds, reptiles and amphibians. Apart from this 12 signages were installed in the Astral garden. A total 72 signages were installed at the site. Design files are available as *Annexure 12*.



Figure 32: Astral Garden Signage



Figure 33: Signages on nature trail

- **Exhibit development:** A total 10 exhibit are developed on different themes as follows.
 1. Introduction to the Ambivili Biodiversity Park: 5x4 vertical
 2. Threatened Wildlife: 5x4 (horizontal)

3. Butterflies: 5x4 (horizontal)
4. Butterflies: 5x4 (horizontal)
5. Birds: 5x4 (horizontal)
6. Insects: 5x4 (horizontal)
7. Herpetofauna: 5x4 (horizontal)
8. State representatives: 3x 4 (horizontal)
9. Threats to Biodiversity: 3x 4 (horizontal)
10. Green Citizen: 3x 4 (vertical)



Figure 34: Exhibits

The designing work is completed and fabrication work is ongoing. The exhibits are bilingual available in English and Marathi languages. The Marathi translation can be scanned through the QR code available on the English exhibit displayed at the site. These will be installed in the thematic gardens. Design files are available as *Annexure 13*.



Figure 35: Fabrication work of Exhibits

- **Activity Station:** The theme for the activity stations were finalized. Nature Bingos were developed on 10 different themes as follows.
 1. Leaf shape
 2. Leaf type
 3. Leaf arrangement
 4. Types of fruits

5. Types of barks
6. Reptiles
7. Insects
8. Butterflies
9. Types of flowers
10. Birds

The bilingual content was developed in English and Marathi for the Nature Bingo and the designing was completed. The same will be printed and installed at the site. Design files are available as *Annexure 14*.



Figure 36: Nature Bingo

- **Project Video:** As part of the project video development, video shoot and drone shooting was done at the site. The video is available on YouTube- [Click](#).



Figure 37: Video on YouTube

8. PROJECT REVIEW

8.1 Plantation Review: Dr. V Shubhalaxmi inspected the site on 31st March 2023. The plantation review for the fourth quarter was conducted by Ms. Roma Tripathi from March 4th to March 9th, 2023. It was observed that 5869 plants survived out of the 9646 saplings at the site. Therefore, a survival rate of 60.8% was noted whereas the mortality was 39.2%. The plantation review list is available as *Annexure 15* & garden wise data as *Annexure 16*. The flowering plants and comparative images are available as *Annexure 17 &18*.



Figure 38: Dr V Shubhalaxmi during site inspection and Plantation Review by Ms. Roma Tripathi and Caretaker.

The forest fires and scorching climate have taken a toll on the saplings in the fourth quarter. There were two major forest fire which was a result of the man-made fire that took place at the site and damaged the plantation. Because of high-temperature and heat released by fire blaze huge amount of plantations got affected. As a remedial step more water was given to these saplings however many of them died. Also some tree saplings are infected by stem borer beetles.



Figure 39: Tree saplings infected by Stem borer beetle

Regular maintenance of the plants and habitat is being done routinely. The growth of saplings is good and many tree saplings have grown to a height of 15ft. Most of the herbs and shrubs in the thematic gardens have started blooming and attracting a good number of insect pollinators and birds. Species like Mulberry, Singapore cherry, Bryophyllum, Jamaican spike, Rangoon creeper, Wedelia, Jacomentia and Shoe flower are flowering profusely and some are also fruiting.



Figure 40: Mulberry and Banana fruits

The butterflies, bees and other pollinators can be seen fluttering around the flowers. Carpenter bees can also be seen fluttering around the Calotropis flowers. The gardens are well established and the plantation at boundary wall is doing well.

8.2 Carbon sequestration: Plant-rich landscapes capture approximately 25% of global carbon emissions; when plants reach a girth size of 10cm, they begin to store carbon within them. As a result, a carbon sequestration method was used on-site to assess the carbon storage in our plantations. All of the plants in the thematic garden had their girths measured, as well as the side of the boundary wall, and the stored carbon was calculated.

Out of the 410 tree saplings measured at the site for its girth 236 tree saplings have grown to 10 cm or more in girth. And have begun to store carbon from the atmosphere. Kadam, Umber, Wild almond, Karanj, and Arjun are the plants found to be more than 10 cm in girth. Kadam sp. has the highest number of carbon-storing plants. These 236 tree saplings stored a total of 815 kgs of carbon. The detail list of tree saplings is enclosed as Annexure 19.

8.3 Qualitative Impacts: Following are the details of qualitative impacts of project activities.

- **Plantation:** The land once barren is slowly turning greener as the plantation has progressed since the beginning of the project.
- **Increase in biodiversity:** This quarter observed an increase in the total number of wildlife species at the site.
- **Plant growth:** Species like Shankhasur, Lantana, Wedelia, Blue Jaquemontia, Jamican blue spike and so on are growing profusely whereas banana, mulberry and singapore cherry have started flowering and fruiting. Bamboo and shatavari have started regenerating from shoots. Also tulsi and Jamican blue spike plants have started regenerating on its own from seeds. The tree saplings have grown upto 15ft in height.
- **Flowering and fruiting:** Plant species like Jamaican spike, kadu mehendi, powder puff, crotolaria, wedelia etc were profusely flowering providing food for pollinators and supporting their local population.
- **Nursery development:** Sapling bags of locally collected seeds, cuttings and from seedling trays were made for further plantation on the site.

- **Carbon sequestration:** Some tree saplings have grown more than 10cm in girth and have started storing carbon in them.

8.4 Quantitative Impacts: Following are the details of quantitative impacts of project activities.

- **Plantation:** Survival rate of plantation in this quarter is 60.8%.
- **Increase in biodiversity:** The total number of species sighted at site has increased from 197 to 322 (comparison of March 2022 - 2023). The total plant species has increased from 72 to 98, insect species has increased from 48 to 110 and arthropod species has increased from 7 to 15, amphibian species is same as before 3 species, reptile species has increased from 14 to 20 species, bird species has increased from 46 to 65 and mammal species has increased from 7 to 11.
- **Plantation by planting onsite nursery saplings:** Total 774 saplings are growing well in the nursery.
- **Community engagement:** Out of the 350 target for the year 150 volunteers were engaged in different activities like mulching, plantation etc.
- **Carbon Sequestration:** 815 kgs of carbon was stored in 236 tree saplings

8.5 Challenges

- **Hot weather:** Due to the extreme weather it was quite challenging to maintain the plantation in this quarter. Days with hot and harsh climate were quiet often making it difficult for the caretakers to work at site and maintain the plants.



Figure 41: Caretakers watering the plants using buckets

- **Watering:** As the stolen solar pump at site has not yet been replaced by the KDMC hence the drip line was not functional causing watering issues at the site. Hence, we started ordering tanker water for the plants and also shifted the water tanks to a higher elevation and connected them to dripline making use of the gravitational force for watering purpose. However the caretakers watered the plants using bucket for most of the fourth quarter.

- Theft of materials and vandalism:** As informed in earlier quarters the entire solar-powered borewell pump system was stolen. During this quarter there were constant theft incidents occurring at the site. Robbers broke the cabin lock and stole the site maintenance materials. This included 2 and half bundle of drip line pipe, 1 handy drill machine, 30 m Water pipe, 2 bundle green net, 2 sacks of cement on 14th March 2023.



Figure 42: Broken lock

We have lodged FIR regarding the same at the Kalyan Police station. The copy of the FIR is enclosed as Annexure 20.

- Man-made Forest fire:** Post-monsoon, we have seen the overgrown tall grasses all over the site and nearby our plantations catching forest fire. However during this quarter we have seen local villagers who visit the and adjacent area for firewood collection intentionally light up the dry grasses which result in the huge forest fire. On 7th February a huge fire breakage occurred and almost 200 plus saplings got burned including the boundary side plantations as well as thematic garden & pathway plants. We had called the fire brigade however the fire damaged a lot of saplings and the drip line.



Figure 43: Fire brigade at site



Figure 44: Forest Fire at site

9. STAKEHOLDERS' ENGAGEMENT (Target for the year: 350, Achieved: 150)

9.1 Corporate Employees and Local Communities:

We were able to engage 150 passionate community and corporate volunteers to participate in multiple activities at the site this year. This included Mulching, De-weeding, Seed collection, Sapling bag making, and Plantation activity. We are short of 150 participants to the full fill the target. Hence, we will complete this target of 150 pending participants next year (2023-2024). Table 7 contains the details of the events.

Table 7: List of Volunteering Programmes

Sr. No.	Date	Activity	Corporate/Organisation	No. of Participants
1	22-05-2022	Seed collection	21DCB Bank corporate employee volunteers and 2 community volunteers	23
2	05-06-2022	Making of sapling bags, sowing of seeds	DCB Bank corporate employee volunteers	7
3	01-07-2022	Plantation (Van Mahotsav week)	Commissioner of UMC and CE of KDMC and 70 other KDMC officials and Doctors. 30 Government school children. 1 DCB Bank corporate employee volunteer.	101
4	04-09-2022	Deweeding	2 community volunteers	2

5	10-12-2022	Mulching	DCB Bank employee volunteer	17
Total				150

10. PROJECT OUTCOMES

Table 8: Project outcomes and the Biodiversity Targets they achieve

Sr. No	Project activity	Outcome	Aichi Biodiversity targets	National Biodiversity Targets	UN Sustainability Development Goal Targets
1	Habitat restoration	Restoration of a degraded area to provide food and shelter to local wildlife	Aichi Targets 5, 13 15	National Biodiversity Target 3	SDG 15
2	Climate action	Carbon sequestration, reducing soil erosion and recharging ground water level	Aichi Target 15	National Biodiversity Target 3	SDG 13
3	Biodiversity population	Rise in the total number of species observed at the site through subsequent surveys	Aichi Target 13	National Biodiversity Target 6	SDG 15
4	Community engagement	Engaging corporate and community members in plantation related activities helps in destressing the participants and getting a fresh dose of oxygen with the outdoor session	Aichi Target 1	National Biodiversity Target 1	SDG 3

5	Local employment	The project provides employment to capable locals of the community	Aichi Target 18	National Biodiversity Target 11	
6	Partnership for goals	Joint effort by DCB Bank, iNaturewatch foundation, Forest Department and local community	Aichi Target 2	National Biodiversity Target 2	SDG 17

11. WORKS PLANNED AND COMPLETED

The work activities initiated and commenced till now over the expected time-scale

Table 9: Status of work planned and completed from April 2022 to March 2023

Project Activities	Y2				Status	Comment
	Q1	Q2	Q3	Q4		
Conducting seasonal biodiversity surveys	✓	✓	✓	✓	100%	Four season survey data is available
Maintenance of Plantation	✓	✓	✓	✓	100%	Total 5869 saplings are surviving at site.
Maintenance of Irrigation	✓	✓	✓	✓	100%	The drip line and watering irrigation system is maintained regularly. Some part of it had got burn in forest fire. The same was repaired. Also changes were done in the system as the solar pump was stolen.
Maintenance of Pathway	✓	✓	✓	✓	100%	The pathway has been developed and covered with a layer of khadi (crushed stones) also the edges are been pitched with stones and painted with white wash. The weeds growing on pathway were removed regularly.
Maintenance of Project site	✓	✓	✓	✓	100%	Deweeding, fire line development, watering and mulching is done
Development of Signages	✓	✓	✓	✓	100%	60 bilingual signages are developed and installed on the three nature trails. 150 plant tags were developed and

						installed in the thematic garden.
Development of Exhibits		✓	✓		75%	The designing of the bilingual exhibits is completed. The fabrication and installation part is pending.
Development of Activity stations			✓	✓	10%	10 bilingual Nature bingo are developed. The installation is pending.
Making of Project Video	✓	✓	✓	✓	100%	Draft video is ready
Community Participation Programmes	✓	✓	✓	X	50%	Out of the 350 target for the year 150 Corporate employees and local community members were engaged this year.
Project Review Reporting	✓	✓	✓	✓	100%	Fourth Quarterly report is submitted

12. FUTURE PLANS FOR 2023-2024

Sr. No.	Project Activities	Description
1	Conducting seasonal biodiversity surveys	Conducting seasonal biodiversity survey for fourth quarter
2	Compensatory Plantation	500 saplings will be planted as compensatory plantation.
3	Maintenance of Pathway	Cleaning and maintaining the pathway.
4	Maintenance of Project site	Mulching, grass removal, deweeding.
5	Development of Exhibits	Installation of Exhibits
6	Development of Activity stations	Installation of activity stations.
7	Making of Project Video	Conduct Drone shooting.
8	Community Participation Programmes	Conduct programme for engaging Corporate employees and local community members.
9	Naturalist training programme	Conduct Naturalist training programme
10	Project Review Reporting	Quarterly reports to be submitted

13. PROJECT FINANCE

We had received an amount of Rs. 3716800/- of which we have utilized an amount of Rs. 3716800/-. The statement of expenditure and the Utilization Certificate will be submitted separately.

Details	Amount in Rs.
Project Budget	3716800.00
Grant received 1 st instalment	1858400.00

2 nd instalment	1115040.00
3 rd installment	743360
Total Funds received	3716800.00
Total Expenses	3716800.00
Balance in hand	0

14. CONCLUSION

Overall, the surviving plants at the site are healthy and growing well. The tree saplings at the boundary wall are well established and growing well and some have attained a height of upto 15 feet. Species such as blue Jaquemontia, Jamaican blue spike, wedelia, and touch me not plants have outgrown their habitats and begun to regenerate on their own. Bamboo, shatavari, and tulsi in the medicinal garden have also begun to regenerate. Thematic gardens are well established, and plants have begun to bloom and attract wildlife. Nest of tailor bird, sunbird and bulbuls can be seen in the thematic gardens. The overgrown Jamaican blue spike along the pathway attracted a number of butterflies and carpenter bees keep buzzing around the flowers. Wild bananas, for example, have become more robust and have begun to flower and fruit. 815 kgs of carbon was stored in 236 tree saplings which have grown well in height and girth.

However, the third and fourth quarters were extremely difficult due to the extreme heat, forest fire and scarcity of water. The caretakers were on high alert and constantly monitoring the situation. They watered the saplings with buckets using tanker water. They were also continuously involved in the de-weeding of wild grass and weeds. The caretakers are taking good care of the plantation. We request for an extension of this project by two more years, so that we can record the carbon sequestering of the tree sapling planted as they will all be ready carbon sequestering.

None of this would have been possible without the ongoing support and guidance of the Kalyan Dombivli Municipal Corporation and DCB Bank. As a result, we are grateful to DCB Bank and the entire staff of the Kalyan Dombivli Municipal Corporation.

Annexure 1: List of plant species recorded at site

		Total species (Mar22)	Apr-Jun22	Jul-Sep22	Oct-Dec22	Jan-Mar23
Sr.no	Category	Common Name	Common Name	Common Name	Common Name	Common Name
1	Herb	Balsam	Cattails	Balsam	Alyce clover	Ran Bhendi
2		Bhui awala	Cocks comb	Bat flower	Amantmul	Joyweed
3		Brazil Jute	Goat weed	Cattails	American mint	Mauritian grass
4		Cattails	Indian borage	Cocks comb	Arundinella spp	Bhamburda
5		Cocks comb	Prickly chaff flower	Goat weed	Bermuda grass	Cocks comb
6		Creeping tick trefoil	Sensitive smithia	Grass like zornia	Bhamburda	Cenchrus spp
7		Creeping Woodsorrel	Sesamum	Indian borage	Bhui avla	Siam weed
8		Crested lepidagathis	Van bhendi	Malaysian false pimpernel	Capilipidium spp	Sahadevi
9		Crotalaria		Prickly chaff flower	Cenchrus spp	Amantmul
10		Doveweed		Sensitive smithia	Cocks comb	Heteropogon spp
11		Ekdandi		Sesamum	Crotalaria	Kate Adulsa
12		Euphorbia		Spiny gourd	Ekdandi	American mint
13		Euphorbia	Urena lobata		Gangotra	Little Gooseberry
14		False Daisy			Goat weed	Pseudanthistiria spp
15		Gend			Goph	Comb rungia
16		Goat weed			Green amaranth	Ekdandi
17		Grass like zornia			Heteropogon spp	Jhinhira
18		Hairy slitwort			Jhinhira	
19		Humpback flower			Joyweed	
20		Indian borage			Kate Adulsa	
21		Indigofera			Little Gooseberry	
22		Joyweed			Mauritian grass	
23		Jute			Pseudanthistiria spp	
24		Malaysian false pimpernel			Ran Bhendi	
25		Panicled dewflower			Ran-Nachani	
26		Prickly chaff flower			Sahadevi	

27		Rantur			Siam Weed	
28		Rungia			Slender dwarf	
29		Scarlet guard			Spot Flower	
30		Sensitive smithia			Spreading canscora	
31		Sesamum			Water primrose	
32		Slender dwarf				
33		Solanum				
34		Spiny gourd				
35		Spot Flower				
36		Spreading canscora				
37		Van bhendi				
38		Water primrose				
39		Witchweed				
40	Shrub	Castor	Castor	Castor	Bushweed	Paper Flower Climber
41		Ghaneri	Ghaneri	Ghaneri	Paper Flower Climber	
42		Glori lily	Glori lily	Glori lily		
43		Indian screw tree	Indian screw tree	Indian screw tree		
44		Karvanda	Karvanda	Karvanda		
45		Milk weed	Milk weed	Milk weed		
46		Morning glory	Morning glory	Morning glory		
47		Ran bhendi	Ran bhendi			
48		Wild brinjal	Wild brinjal			
49		Paper Flower Climber	Paper Flower Climber	Paper Flower Climber		
50	Climber	Elephant creeper	Elephant creeper	Elephant creeper	Blue morning glory	Pink Morning Glory
51		Glory	Glory	Glory	Broom Creeper	Velvet Leaf
52		Monkey tamarind	Monkey tamarind	Monkey tamarind	Monkey tamarind	
53		Pink Morning Glory	Pink Morning Glory	Pink Morning Glory	Pink Morning Glory	
54		Rosary pea	Rosary pea	Rosary pea		
55		Scarlet guard	Scarlet guard	Scarlet guard		
56		Spiny gourd	Spiny gourd	Spiny gourd		
57	Tree	Apta	Apta	Apta	Apta	Flame of forest
58		Ber	Ber	Ber	Ber	Hairy fig
59		Cluster fig	Cluster fig	Cluster fig	Cluster fig	Ber
60		Flame of forest	Flame of forest	Flame of forest	Flame of forest	
		Gooseberry	Gooseberry	Gooseberry	Gooseberry	

61		Hairy fig	Hairy fig	Hairy fig	Hairy fig	
62		Indian Elm	Indian Elm	Indian Elm	Indian Elm	
63		Indian Laburnum	Indian Laburnum	Indian Laburnum	Indian Laburnum	
64		Indian mulberry	Indian mulberry	Indian mulberry	Indian mulberry	
65		Indrajao	Indrajao	Indrajao	Indrajao	
66		Phalsa	Phalsa	Phalsa	Phalsa	
67		Phalsa	Phalsa	Phalsa	Phalsa	
68		Pongam tree	Pongam tree	Pongam tree	Pongam tree	
69		Queens Flower	Queens Flower	Queens Flower	Queens Flower	
70		Teak	Teak	Teak	Teak	
71		Tremma	Tremma	Tremma	Tremma	
72	Fungi			Unid fungi		
73				Unid fungi 2		

Annexure 2: Total list of Plant Species Recorded at Site

Sr.no	Category	Common Name	Scientific name
1	Herb	Alyce clover	<i>Alysicarpus vaginalis</i>
2		Amantmul	<i>Hemidesmus indicus</i>
3		American mint	<i>Mesosphaerum suaveolense</i>
4		Arundinella spp	<i>Arundinella spp</i>
5		Balsam	<i>Impatiens balsamina</i>
6		Bat flower	<i>Tacca sp.</i>
7		Bermuda grass	<i>Cynadon dactylon</i>
8		Bhamburda	<i>Blumea lacera</i>
9		Bhui awala	<i>Phyllanthus niruri</i>
10		Brazil Jute	<i>Malchra capitata</i>
11		Capilipidium spp	<i>Capilipidium spp</i>
12		Cattails	<i>Typha</i>
13		Cenchrus spp	<i>Cenchrus spp</i>
14		Cocks comb	<i>Celosia cristata</i>
15		Comb rungia	<i>Rungia pectinata</i>
16		Creeping tick trefoil	<i>Desmodium trifolium</i>
17		Creeping Woodsorrel	<i>Oxalis corniculata</i>
18		Crested lepidagathis	<i>Lepidagathis cristata</i>
19		Crotalaria	<i>Crotalaria filipes</i>
20		Doveweed	<i>Murdania nudiflora</i>
21		Ekdandi	<i>Tridax procumbens</i>
22		Euphorbia	<i>Euphorbia hirta</i>
23		Euphorbia	<i>Euphorbia hypericifolia</i>
24		False Daisy	<i>Eclipta alba</i>
25		Gangotra	<i>Cyathocline purpurea</i>
26		Gend	<i>Eriocaulon sp</i>
27		Goat weed	<i>Ageratum conyzoides</i>
28		Goph	<i>Lucas aspera</i>
29		Grass like zornia	<i>Zornia gibbosa</i>
30		Green amaranth	<i>Amarathus viridis</i>
31		Hairy slitwort	<i>Lindernia crustacia</i>
32		Heteropogon spp	<i>Heteropogon spp</i>
33		Humpback flower	<i>Hypanthus enneaspermus</i>
34		Indian borage	<i>Tricodesma indicum</i>
35		Indigofera	<i>Indigofera sp</i>
36		Jhinjhira	<i>Triumfetta rhomboidea</i>
37		Joyweed	<i>Alternanthera sissilis</i>
38		Jute	<i>Corchorus aestuans</i>
39		Kate Adulsa	<i>Lepidagathis cuspidata</i>

40		Little Gooseberry	<i>Physalis minima</i>
41		Malaysian false pimpernel	<i>Lindernia ciliata</i>
42		Mauritian grass	<i>Apluda mutica</i>
43		Panicled dewflower	<i>Murdania semteres</i>
44		Prickly chaff flower	<i>Achyranthus aspera</i>
45		Pseudanthistiria spp	<i>Pseudanthistiria spp</i>
46		Ran Bhendi	<i>Abelmoschus manihot</i>
47		Ran-Nachani	<i>Eleusine indica</i>
48		Rantur	<i>Cajanus lineatus</i>
49		Rungia	<i>Rungia sp</i>
50		Sahadevi	<i>Cyanthillium cinereum</i>
51		Scarlet guard	<i>Coccinia indica</i>
52		Sensitive smithia	<i>Smithia sensitiva</i>
53		Sesamum	<i>Sesamum indicum</i>
54		Siam Weed	<i>Chromolaena odorata</i>
55		Slender dwarf	<i>Evolvulus alsinoides</i>
56		Solanum	<i>Solanum sp</i>
57		Spiny gourd	<i>Momordica dioca</i>
58		Spreading canscora	<i>Canscora diffusa</i>
59		Van bhendi	<i>Urena lobata</i>
60		Water primrose	<i>Ludwigia sp</i>
		Witchweed	<i>Striga asiatica</i>
61	Shrub	Castor	<i>Ricinus communis</i>
62		Ghaneri	<i>Lantana camara</i>
63		Glori lily	<i>Gloriosa superba</i>
64		Indian screw tree	<i>Helicteres isora</i>
65		Karvanda	<i>Carissa congesta</i>
66		Milk weed	<i>Calotropis gigantea</i>
67		Morning glory	<i>Ipomea fistulosa</i>
68		Ran bhendi	<i>Thespesia lampas</i>
69		Wild brinjal	<i>Solanum sp</i>
70		Bushweed	<i>Flueggea leucopyrus</i>
71	Climber	Blue morning glory	<i>Ipomoea nil</i>
72		Broom Creeper	<i>Cocculus hirsutus</i>
73		Elephant creeper	<i>Argyrea sp</i>
74		Glory	<i>Operculina turphetum</i>
75		Monkey tamarind	<i>Mucuna pruriens</i>
76		Paper Flower Climber	<i>Getonia floribunda</i>
77		Pink Morning Glory	<i>Ipomea carnea</i>
78		Rosary pea	<i>Abrus precatorius</i>
79		Scarlet guard	<i>Coccinia indica</i>
80		Spiny gourd	<i>Momordica dioca</i>

		Velvet Leaf	<i>Cissampelos pareira</i>
81	Tree	Apta	<i>Bauhonia racemosa</i>
82		Ber	<i>Ziziphus jujuba</i>
83		Cluster fig	<i>Ficus racemosa</i>
84		Flame of forest	<i>Butea monosperma</i>
85		Gooseberry	<i>Phyllanthus emblica</i>
86		Hairy fig	<i>Ficus hispida</i>
87		Indian Elm	<i>Holoptelea integrifolia</i>
88		Indian Laburnum	<i>Cassia fistula</i>
89		Indian mulberry	<i>Morinda sp</i>
90		Indrajao	<i>Holarrhena pubescens</i>
91		Phalsa	<i>Grewia sp</i>
92		Phalsa	<i>Grewia asiatica</i>
93		Pongam tree	<i>Pongamia pinnata</i>
94		Queens Flower	<i>Lagerstoemia speciosa</i>
95		Teak	<i>Tectona grandis</i>
96		Tremma	<i>Trema orientalis</i>
97	Fungi	Unidentified bracket fungi	
98		Undidentified fungi 2	

Annexure 3: Photographs of Plants Recorded at Site



Ukshi



Mahua- Flowering



Red silk cotton tree- Flowering



Flame of Forest-Flowering



Spotted Gliricidia- Flowering



White silk cotton- fruiting



Morinda



Easter Flower Tree

Annexure 4: List of Insect species seen at site

Sr. No.	Group	Total	Previous data (Mar22)	Apr22-Jun22	Jul22-Sep22	Oct22-Dec22	Jan22-Mar 23
1	Butterflies	Albatross	Albatross	Common Grass Yellow	Blue tiger	Albatross	Blue tiger
2		Baronet	Blue Pansy	Mottled Emigrant	Common Crow	Baronet	Chocolate pansy
3		Blue Pansy	Blue tiger	Pioneer Butterfly	Common Mormon	Blue tiger	Commander butterfly
4		Blue Tiger	Chocolate pansy	Plain Orange-tip butterfly	Danaid Egg Fly	Chocolate Pansy	Common baron
5		Blue Mormon	Commander (caterpillar)	Plain Tiger	Giant Redeye	Commander (Adult + Caterpillar)	Common cerulean
6		Chocolate pansy	Common Crow (Pupa & Adult)	Red Flash butterfly	Glassy Tiger	Common Baron	Common crow
7		Commander (caterpillar)	Common Leopard	Tawny Coaster	Grass Yellow	Common Cerulean	Common grass yellow
8		Common Baron	Common Mormon		Grey Pansy	Common crow	Common jezebel
9		Common Cerulean	Common Rose		Gull	Common grass yellow	Common lime
10		Common Crow (Pupa & Adult)	Crimson Rose		Jezebel	Common Jezebel	Common Mormon
11		Common grass yellow	Danaid egg fly		Leopard	Common leopard	Common pierrot
12		Common Leopard	Forget-me-not		Lime	Common lime	Common sailor
13		Common Mormon	Glassy tiger		Skipper	Common Mormon	Danaid egg fly
14		Common Rose	Grass yellow		Tailed Jay	Danaid egg fly	Forget me not fly
15		Crimson Rose	Grey Pansy		Blue Mormon	Emigrant	Gram blue
16		Danaid egg fly	Jezebel			Forget -me-not	Lemon pansy
17		Emigrant	Leopard			Glassy tiger	Mottled Emigrant
18		Forget-me-not	Lime Butterfly			Gram blue	Plain tiger
19		Giant Redeye	Mime butterfly caterpillar			Grass yellow	Skipper
20		Glassy tiger	Peacock			Great orange	Tawny coaster

			pansy			tip	
21		Gram blue	Plain cupid			Grey Pansy	White orange tip
22		Grass yellow	Plain tiger			Gull	
23		Great orange tip	Skipper			Indian Sunbeam	
24		Grey Pansy	Striped tiger			Jezebel	
25		Gull	Tailed jay			Mime	
26		Indian Sunbeam	Tawny Coster			Mottled emigrant	
27		Jezebel	Yamfly			Painted lady	
28		Leopard	Yellow Orange Tip			Peacock pansy	
29		Lime Butterfly				Pioneer Butterfly	
30		Mime butterfly caterpillar				Plain cupid	
31		Mottled Emigrant				Plain Orange - tip	
32		Painted lady				Plain tiger	
33		Peacock pansy				Sailor	
34		Pioneer				Skipper	
35		Plain cupid				Striped tiger	
36		Plain Orange-tip				Tawny coster	
37		Plain tiger				Wanderer	
38		Red Flash butterfly				Yellow orange tip	
39		Sailor					
40		Skipper					
41		Striped tiger					
42		Tailed jay					
43		Tawny Coster					
44		Wanderer					
45		Yamfly					
46		Yellow Orange Tip					
47	Moths	Asota sp.	Convolvulus Hawkmoth		Asota sp.	Tussar Silk moth	Bagworm moth
48		Amata cyssea	Death's Head Hawkmoth		Coffee bee hawk moth	Tiger moth	Cucumber moth
49		Bagworm moth	Grass Moth		Forester moth	Semi looper moth (caterpillar)	Death's head hawkmoth

50		Bird dropping moth cocoon	Humming bird hawkmoth		Fruit piercing moth	Grass moth	Geometrid caterpillar
51		Coffee bee hawk moth	Semi looper moth caterpillar		Hummingbird hawkmoth	Hummingbird Hawk-Moth	Grass moth
52		Convolvulus Hawkmoth	Swallowtail moth			Geometrid caterpillar	Lappet moth caterpillar
53		Death's Head Hawkmoth	Tussock Moth			Okra looper caterpillar	Semi-looper caterpillar
54		Forester moth				Amata cyssea	
55		Fruit piercing moth				Talaca moth	
56		Geometrid caterpillar				Pink tiger moth caterpillar	
57		Grass Moth				Hawk moth caterpillar	
58		Hawk moth caterpillar				Bird dropping moth cocoon	
59		Humming bird hawkmoth				Bagworm moth	
60		Okra looper caterpillar					
61		Pink tiger moth caterpillar					
62		Semi looper moth caterpillar					
63		Swallowtail moth					
64		Talaca moth					
65		Tiger moth					
66		Tussar Silk moth					
67		Tussock Moth					
68	Others	Ant nest	Bark Mantis	Bee sp.	Carpenter Ant	Ant nest	Mud dauber wasp
69		Antlion larva	Carpenter bee (smaller)	Red- veined Darter	Crimson dragonfly	Brown cricket	Antlion larva
70		Bark Mantis	Carpenter Ant		Plant hopper	Carpenter bee	Bark mantis
71		Brown cricket	Cow Bug		Six spotted ground beetle	Case worm	Carpenter bee
72		Carpenter Ant	Ground Beetle		Skimmer dragonfly	Crane flies	Crane fly

73		Carpenter bee (smaller)	Hooded grasshopper		Carpenter bee (smaller)	Damsel fly	Darkling beetle
74		Case worm	Katydid			Darkling beetle	Grasshopper
75		Cow Bug	Red Cotton Bug			Dragonfly	Plant hopper
76		Crane flies	Scale insect			Drosophila	Red cotton silk bug
77		Crimson dragonfly	Shield Bug			Green bottle fly	Stemborer
78		Damsel fly	Short Horned Grasshopper			Honey bee	Stink bug
79		Darkling beetle	Six spotted ground beetle			Hooded grasshopper	Termite nest
80		Dragonfly	Termites			Jewel beetle	
81		Drosophila				Jewel bug	
82		Grasshopper				Lacewing (Adult + eggs)	
83		Green bottle fly				Long horned beetle	
84		Ground Beetle				Ootheca of praying mantis	
85		Honey bee				Paper wasp	
86		Hooded grasshopper				Parasitoid wasp	
87		Jewel beetle				Plant hopper	
88		Jewel bug				Praying mantis nymph	
89		Katydid				Predator stink bugs	
90		Lacewing (Adult + eggs)				Reduvid bugs	
91		Long horned beetle				Robber fly	
92		Mud dauber wasp				Solitary bee	
93		Paper wasp				Stink bug eggs	
94		Parasitoid wasp					
95		Plant hopper					
96		Predator stink bugs					
97		Red Cotton Bug					

98		Red cotton silk bug					
99		Reduvid bugs					
100		Red-veined Darter					
101		Robber fly					
102		Scale insect					
103		Shield Bug					
104		Short Horned Grasshopper					
105		Six spotted ground beetle					
106		Skimmer dragonfly					
107		Solitary bee					
108		Stemborer					
109		Stink bug eggs					
110		Termites					
111	Arachnids	Crab Spider	Giant orb weaver spider		Grass Lynx spider	Two tailed spider	Funnel web spider
112		Giant orb weaver spider	Giant red-headed centipedes		Hunters Spider	Jumping spider	Jumping spider
113		Grass Lynx spider	Indian Red Scorpion		Crab Spider	Funnel web spider	Lynx spider
114		Hunters Spider	Jumping spider		Scorpion	Orb weaver	Spiny backed Orb weaver spider
115		Indian Red Scorpion	Lynx Spider			Unidentified spider sp.	Wolf spider
116		Jumping spider	Wolf spider			Lynx spider	
117		Lynx Spider					
118		Red Velvet Mite					
119		Scorpion					
120		Wolf spider					
121		Two tailed spider					
122		Funnel web spider					
123		Orb weaver					
124		Unidentified spider sp.					
125	Centipedes	Unidentified Centipede	Unidentified Centipede				

Annexure 5: Insect Photographs Seen at Site



Ant-lion larva



Plain tiger butterfly



Common crow caterpillar



Deaths head hawk moth



Jumping spider



Cucumber moth



Cerulean



Tawny coster



Exoskeleton of dragonfly



Bark mantis



Mud dauber wasp nest



Harvester ant nest

Annexure 6: List of Herpetofauna seen at Site

Sr. No	Taxa	Total	Previous data (Apr20-Mar22)	Apr-Jun'22	Jul22-Sep22	Oct 22-Dec22	Jan23-Mar23
1	Reptiles	Bark Gecko	Blind Snake	Bark Gecko	Bark Gecko	Buff striped keelback	Common skink
2		Blind Snake	Brook's Gecko	Spiny-headed Fan-throated Lizard	Garden Lizard	Common skink	Garden Lizard
3		Brook's Gecko	Buff striped keelback	Blind Snake	Giri's Ground Gecko	Common Bronze back Tree Snake	Jerdon's Lacertid Lizard
4		Buff striped keelback	Garden Lizard		Green Vine Snake	Fan throated lizard	Rat Snake
5		Common skink	Giri's Ground gecko		House Gecko	Green Vine Snake	Russell's Viper
6		Common Bronze back Tree Snake	House gecko		Rat Snake	House gecko	Red-tailed skink
7		Giri's Ground gecko	Jerdon's Lacertid Lizard		Russell's viper	Oriental garden lizard	Russell kukri
8		Green Vine Snake	Peninsular rock Agama		Spiny headed fan-throated lizard	Rat Snake	Spectacled Cobra
9		House gecko	Pondicherry Fan-throated lizard			Russell's Viper	Spiny-headed Fan-throated Lizard
10		Jerdon's Lacertid Lizard	Rat Snake			Softshell turtle	
11		Oriental garden lizard	Russell's Kukri Snake				
12		Peninsular rock Agama	Russell's Viper				
13		Pondicherry Fan-throated lizard	Spectacled Cobra				
14		Rat Snake	Spiny headed fan-throated lizard				
15		Red-tailed skink					
16		Russell's Kukri Snake					
17		Russell's Viper					

18		Softshell turtle					
19		Spectacled Cobra					
20		Spiny headed fan-throated lizard					
1	Amphibians	Bull frog	Bull frog		Bull Frog	Asian toad	Asian toad
2		Fungoid frog	Fungoid frog		Tree Frog	Bull frog	Bull frog
3		Tree frog	Tree frog			Tree frog	Tree frog

Annexure 7: Representative Photographs of Reptiles /Amphibians seen at site



Russell's Viper



Ophios jerdonii



Skittering frog



Russel kukri



Common Asian toad



Spectacle cobra

Annexure 8: List of Birds Recorded at Site

Sr. No.	Total	Previous data (Mar22)	Apr-June 2022	Jul22-Sep22	Oct22-Dec22	Jan23-Mar23
1	Alexandrine Parakeet	Alexandrine Parakeet	Ashy Prinia	Ashy Prinia	Alexandrine parakeet	Alexandrine parakeet
2	Ashy drongo	Ashy Prinia	Asian Koel	Asian Koel	Ashy drongo	Ashy drongo
3	Ashy Prinia	Asian Koel	Asian Palm-Swift	Asian Palm-Swift	Ashy prinia	Ashy prinia
4	Asian Koel	Black Drongo	Black Kite	Baya Weaver	Asian koel	Asian koel
5	Asian Palm-Swift	Black Kite (Black)	Cattle Egret	Black Kite (Black)	Asian palm swift	Asian palm swift
6	Baya Weaver	Black Kite (Black-eared)	Common Myna	Cattle Egret	Black drongo	Black drongo
7	Black Drongo	Cattle Egret	Common Tailorbird	Cinnamon Bittern	Black kite	Black Kite (Black)
8	Black Kite (Black)	Common Hawk-Cuckoo	Coppersmith Barbet	Common Myna	Cattle egret	Cattle egret
9	Black Kite (Black-eared)	Common Kingfisher	Indian Robin	Common Tailorbird	Eurasian hoopoe	Common mayna
10	Cattle Egret	Common Myna	Jungle Babbler	Coppersmith Barbet	Common mayna	Common tailorbird
11	Cinnamon Bittern	Common Tailorbird	Laughing Dove	Gray-breasted Prinia	Common tailorbird	Coppersmith barbet
12	Common Hawk-Cuckoo	Forest owlet	Plain Prinia	Greater Coucal (Southern)	Coppersmith barbet	Dusky crag Martin
13	Common Kingfisher	Greater Coucal (Southern)	Purple Sunbird	House Crow	Dusky crag Martin	Eurasian hoopoe
14	Common Myna	Green Bee-eater	Purple-rumped sunbird	House Sparrow	Greater coucal	Greater coucal
15	Common Tailorbird	House Crow	Red-vented Bulbul	Indian Pond-Heron	Green Bee-eater	Green Bee-eater
16	Coppersmith Barbet	House sparrow	Red-whiskered Bulbul	Indian Robin	Grey Francolin	Grey Francolin
17	Dusky crag Martin	Indian Peafowl	Rock pigeon	Intermediate Egret	House crow	House crow
18	Eurasian hoopoe	Indian Pond-Heron	Rose-ringed Parakeet	Jungle Babbler	Indian golden oriole	Indian golden oriole
19	Forest owlet	Indian Robin	Spotted Dove	Laughing Dove	Indian Peafowl	Indian Peafowl
20	Gray-breasted Prinia	Jungle Babbler	Tickell's Blue Flycatcher	Little Cormorant	Indian pond heron	Indian pond heron
21	Greater Coucal (Southern)	Jungle Prinia	White-throated Kingfisher	Painted Francolin	Indian robin	Indian robin

22	Green Bee-eater	Large billed crow		Pale-billed Flowerpecker	Jungle babbler	Jungle babbler
23	Grey Francolin	Laughing Dove		Plain Prinia	Large-billed crow	Large-billed crow
24	House Crow	Long-tailed Shrike		Purple-rumped Sunbird	Laughing dove	Laughing dove
25	House sparrow	Oriental honey-Buzzard		Red-vented Bulbul	Long tailed shrike	Long tailed shrike
26	Indian golden oriole	Oriental Magpie robin		Red-whiskered Bulbul	Marsh harrier	Marsh harrier
27	Indian Peafowl	Pale-billed Flowerpecker		Rock Pigeon (Feral Pigeon)	Oriental honey buzzard	Oriental honey buzzard
28	Indian Pond-Heron	Plain Prinia		Rose-ringed Parakeet	Oriental Magpie robin	Oriental Magpie robin
29	Indian Robin	Purple sunbird		Spotted Dove	Plain prinia	Plain prinia
30	Intermediate Egret	Purple-rumped Sunbird		White-throated Kingfisher	Plum headed parakeet	Plum headed parakeet
31	Jungle Babbler	Red Avadavat			Purple rumped sunbird	Purple rumped sunbird
32	Jungle Prinia	Red whiskered Bulbul			Purple sunbird	Purple sunbird
33	Large billed crow	Red-rumped Swallow			Red avadavat	Red avadavat
34	Laughing Dove	Red-vented Bulbul			Red vented bulbul	Red vented bulbul
35	Little Cormorant	Rock Pigeon			Red whiskered bulbul	Red whiskered bulbul
36	Long-tailed Shrike	Rose-ringed Parakeet			Rock pigeon	Rock pigeon
37	Marsh harrier	Scaly-breasted Munia			Rose ring parakeet	Rose ring parakeet
38	Oriental honey-Buzzard	Shikra			Rosefinch sp.	Rosefinch sp.
39	Oriental Magpie robin	Siberian Stonechat			Rufous treepie	Rufous treepie
40	Painted Francolin	Spotted Dove			Scaly breasted munia	Scaly breasted munia
41	Pale-billed Flowerpecker	Swallow sp.			Shaheen falcon	Shaheen falcon
42	Plain Prinia	Swift sp.			Shikra	Shikra
43	Plum headed parakeet	White-throated Kingfisher			Siberian stonechat	Siberian stonechat
44	Purple sunbird	Wire-tailed Swallow			Spotted Dove	Spotted Dove
45	Purple-rumped Sunbird	Yellow-eyed Babbler			Spotted owlet	Spotted owlet

46	Red Avadavat	Zitting Cisticola			White throated kingfisher	White throated kingfisher
47	Red whiskered Bulbul				Wire tailed swallow	Wire tailed swallow
48	Red-rumped Swallow				Zitting cisticola	Yellow-footed green pigeon
49	Red-vented Bulbul				Alexandrine parakeet	Zitting cisticola
50	Rock Pigeon					
51	Rosefinch sp.					
52	Rose-ringed Parakeet					
53	Rufous treepie					
54	Scaly-breasted Munia					
55	Shaheen falcon					
56	Shikra					
57	Siberian Stonechat					
58	Spotted Dove					
59	Spotted owlet					
60	Tickell's Blue Flycatcher					
61	White-throated Kingfisher					
62	Wire-tailed Swallow					
63	Yellow-eyed Babbler					
64	Yellow-footed green pigeon					
65	Zitting Cisticola					

Annexure 9: Representative Photographs of Birds seen at Site



Grey Francolin



Red avadavat bird



Greater spotted eagle



Southern coucal



Black kite



Black-winged kite

Annexure 10: List of Mammals seen at site

Sr. No.	Total Species	Previous data (Apr20-Mar22)	Apr-Jun22	Jul22-Sep22	Oct22-Dec22	Jan 23-Mar23
1	Black-naped hare	Black-naped hare	Feral Dogs	Feral Dogs	Black-naped hare	Black-naped hare
2	Cow	Feral Dogs	Palm Squirrel	Palm Squirrel	Palm squirrel	Feral Dogs
3	Feral Dogs	Flying Fox	Cow	Cow	Jungle Cat? (scat)	Indian grey mongoose
4	Flying Fox	Mole Rat				Indian grey langur
5	Indian grey langur	Palm squirrel				Jungle cat
6	Indian grey mongoose	Short-nosed fruit bat				Mole Rat
7	Jungle cat	Unidentified Rat				Cow
8	Mole Rat	Cow				
9	Palm squirrel					
10	Short-nosed fruit bat					
11	Unidentified Rat					

Annexure 11: Wildlife installations



Mammal house



Owl nest



Reptile house



Butterfly feeder





Bird nest



Bird feeder

Mammal house



Bird feeder

Butterfly bait

Annexure 12: Signage Design Files (attached)

Annexure 13: Exhibit Design Files

THREATENED WILDLIFE OF MAHARASHTRA

Let us save our charismatic wildlife before it is too late

Threatened plants and animals have extremely low populations and severely reduced or degraded habitats, putting them in danger of extinction. Main hazards are habitat loss and illegal trade. IUCN's Red Data Book lists endangered animals and plants. The Wildlife (Protection) Act, 1972, and CITES prohibit hunting and trade in such species in India.

Indian Pangolin (*Manis pentadactyla*)
It is the only mammal with scales. It is highly valued for its scales, which are used in traditional Chinese medicine. It is critically endangered.

Tiger (*Panthera tigris*)
There are only about 400 wild tigers left in India. Maharashtra has the highest number of tigers. It is endangered.

Indian Leopard (*Panthera pardus*)
It is the most common big cat in India. It is vulnerable.

Indian Rhinoceros (*Rhinoceros unicornis*)
It is the largest rhinoceros in the world. It is critically endangered.

Indian Elephant (*Elephas maximus*)
It is the largest land mammal in the world. It is endangered.

Indian Wild Ass (*Equus hemionus*)
It is the only wild ass in the world. It is critically endangered.

Indian Wild Dog (*Cynopterus*)
It is the largest flying mammal in the world. It is endangered.

Indian Grey Hornbill (*Buccones lucasii*)
It is the largest hornbill in the world. It is endangered.

Indian Blue Jay (*Cyanopicus cyaneus*)
It is the largest blue jay in the world. It is endangered.

Indian Kingfisher (*Alcedo leucopygia*)
It is the largest kingfisher in the world. It is endangered.

Indian Woodhoopoe (*Picoides leucophaea*)
It is the largest woodhoopoe in the world. It is endangered.

Indian Scops Owl (*Nyctaleus astor*)
It is the largest scops owl in the world. It is endangered.

Indian Eagle Owl (*Bubo pallasii*)
It is the largest eagle owl in the world. It is endangered.

Indian Eagle (*Nisaetus cirpectus*)
It is the largest eagle in the world. It is endangered.

Indian Vulture (*Gyps indicus*)
It is the largest vulture in the world. It is critically endangered.

Indian Stork (*Ciconia asiatica*)
It is the largest stork in the world. It is endangered.

Indian Pelican (*Pelecanus fuscus*)
It is the largest pelican in the world. It is endangered.

Indian Cormorant (*Phalacrocorax fuscus*)
It is the largest cormorant in the world. It is endangered.

Indian Kingfisher (*Alcedo leucopygia*)
It is the largest kingfisher in the world. It is endangered.

Indian Woodhoopoe (*Picoides leucophaea*)
It is the largest woodhoopoe in the world. It is endangered.

Indian Scops Owl (*Nyctaleus astor*)
It is the largest scops owl in the world. It is endangered.

Indian Eagle Owl (*Bubo pallasii*)
It is the largest eagle owl in the world. It is endangered.

Indian Eagle (*Nisaetus cirpectus*)
It is the largest eagle in the world. It is endangered.

Indian Vulture (*Gyps indicus*)
It is the largest vulture in the world. It is critically endangered.

Indian Stork (*Ciconia asiatica*)
It is the largest stork in the world. It is endangered.

Indian Pelican (*Pelecanus fuscus*)
It is the largest pelican in the world. It is endangered.

Indian Cormorant (*Phalacrocorax fuscus*)
It is the largest cormorant in the world. It is endangered.

DCB BANK

TOP 10 BUTTERFLIES OF AMBIVLI

The ambassador of Insect World

Butterflies and Moths belong to one common group- Lepidoptera. Both have wings that are covered with scales. There are more than 1400 species of butterflies found in our country, of which 31 are found in this park. There are six butterfly groups. Check out some of the interesting butterflies here.

White Tip (*Graphium*)
It is the largest white tip in the world. It is endangered.

Common Rose (*Graphium*)
It is the largest common rose in the world. It is endangered.

White Changa Tip (*Graphium*)
It is the largest white changa tip in the world. It is endangered.

Common Shining (*Graphium*)
It is the largest common shining in the world. It is endangered.

Black Oak Leaf (*Graphium*)
It is the largest black oak leaf in the world. It is endangered.

Blue Tip (*Graphium*)
It is the largest blue tip in the world. It is endangered.

Small Egg (*Graphium*)
It is the largest small egg in the world. It is endangered.

Common Nymph (*Graphium*)
It is the largest common nymph in the world. It is endangered.

White Tip (*Graphium*)
It is the largest white tip in the world. It is endangered.

Common Rose (*Graphium*)
It is the largest common rose in the world. It is endangered.

White Changa Tip (*Graphium*)
It is the largest white changa tip in the world. It is endangered.

Common Shining (*Graphium*)
It is the largest common shining in the world. It is endangered.

Black Oak Leaf (*Graphium*)
It is the largest black oak leaf in the world. It is endangered.

Blue Tip (*Graphium*)
It is the largest blue tip in the world. It is endangered.

Small Egg (*Graphium*)
It is the largest small egg in the world. It is endangered.

Common Nymph (*Graphium*)
It is the largest common nymph in the world. It is endangered.

DCB BANK

SIX LEGGED WORLD OF INSECTS

Love them or Hate them but You can't Ignore them!

All insects belong to group Arthropoda. Insects, unlike its relatives such as lobsters, spiders, and millipedes, have three pairs of legs, three tier body, one pair of antennae, and one or two pairs of wings. Insects live in practically every ecosystem and around 10 quintillion (10 zeros) are found worldwide.

Entomologists have named one million insect species, but studies estimate that four million remain uncataloged. Insect fossil records are 438 million years old that suggests insects were among the first animals to leave the oceans for land 400 million years ago.

Every ecosystem needs insects. They eat, pollinate, and degrade plants and animals. Birds consume 400-500 million tonnes of insects annually. Without them, natural food chains and food webs will collapse, affecting us.

Nearly 7% of the world insect fauna is found in India which is of nearly 63,760 species out of these 2,126 species are endemic.

How to study insects?
1. Choose a small group of easily identifiable insects.
2. Photograph them using mobile or compact camera.
3. Post your photos on online forums such as iNaturalist.org where you can get help identifying your photos.
4. Maintain record of identified species.

DCB BANK

WILDFLOWERS OF AMBIVLI

Supporting local pollinators

Wildflowers are everywhere. They enhance your outdoor experience by brightening a rock hollow or hiding among ferns. Most of them bloom seasonally, colouring city sidewalks and woodlands. Pollinators feed on them. If you see a wild plant in your garden pot, think before uprooting it.

The Kest Pinnacles in Satara is a World Natural Heritage Site for its uncommon, endangered, and diversified vegetation, 99 of the 624 wildflowers are exclusively found here. The pinnacles change colour every 15-20 days from June to October as flowering plants bloom.

DCB BANK

MAHARASHTRA STATE'S SYMBOLS

Special plants and animals that are chosen as Official Symbols

State Flower: Pride of India
A shrubby perennial tree with large, bright red flowers. It is the state flower of Maharashtra.

State Animal: Indian Giant Squirrel
It is the largest squirrel in the world. It is endangered.

State Bird: Yellow-footed Green Pigeon
It is the largest pigeon in the world. It is endangered.

State Butterfly: Blue Mormon
It is the largest blue mormon in the world. It is endangered.

State Fruit: Mango
It is the largest fruit in the world. It is endangered.

DCB BANK

THREATS TO BIODIVERSITY

Losing biodiversity in plain sight

Agriculture threatens 24,000 of 28,000 (86%) species at risk of extinction. The worldwide rate of species extinction is higher than the average over the past 10 million years.

Habitat loss, pollution, overexploitation, invasive species, and climate change are the five major threats to biodiversity. The loss of nature has far-reaching consequences. Damaged ecosystems exacerbate climate change, jeopardise food security, and endanger people and communities. Therefore the UN declared (2021-2030) as Decade of Ecological Restoration.

Tourism can impact wildlife, plants, and ecosystems through habitat destruction, pollution, over-exploitation of natural resources, and visitor traffic to sensitive ecosystems.

DCB BANK

TOP 10 HERPETOFAUNA OF AMBIVLI

The relatives of Dinosaurs

Reptiles



Indian Chameleon



Indian Python

Reptiles and Amphibians belong to one common field of study-Herpetology. Reptiles are mostly covered with scales. Amphibians have soft and moist skin. There are more than 1082 species of reptiles and amphibians found in our country, of which 43 are found in this park. Check out some of the interesting ones here.

Amphibians



Common Indian Toad 10-15 cm

Largest and most common Indian toad in urban forests. Nocturnal in habit. Exclusively feed on insects. In wet areas, parotid glands behind eyes produce poison.



Indian Bullfrog 15 cm

Largest frog that lives in Indian subcontinent. Primarily nocturnal. Males are bright yellow during breeding season. Insects, small mammals, birds and reptiles are its prey. Its legs were once in high demand internationally.



Oriental Rat Snake 1.65-2 m

An agile common snake that feeds on small mammals, rodents, frogs, birds, and fish. It's commonly mistaken for a cobra because it lifts its head.



Spectacled Cobra 1-1.5 m

Common in forests, farms, and urban settlements. Eats rats, frogs, eggs, and birds. When threatened, expands the hood and hisses loudly. Venom affects nerves.



Russell's Viper 1.2 m

A sluggish, bulky, and heavily spotted snake. Diamond-shaped markings on the back help in identification. Feeds mostly on rodents and birds. When threatened, it hisses loudly and coils. Venom affects blood.



Buff Striped Keelback 63 cm

A small hooded snake, produces venom. Feeds on insects and small mammals. Eats lizards, frogs, and mice. Active during summer. Its neck puffs displaying horizontal blue colours when disturbed.



Brahminy Bird Snake 12 cm

A nocturnal earthworm that feeds in damp soil. Feeds on insects and earthworms. Being under the soil, it is blind.



Bark Gecko 16.6 cm

Inhabits gardens and forests. Dark grey color with wavy bands on the back merges well with tree bark, hence the name. Feeds on insects.



Chusam Tree Frog 5-7.9 cm

Seen in most deciduous forests and urban parks. Males call from nests on trees overhanging water. Foam is created by body fluids of pharynx. Tadpoles eat into water on hatching.



Fungoid frog 8.1 cm

When disturbed, emits a burnt rubber like pungent odour. The red back resembles tree bark fungus, and the distinctive pattern on the rest of the body blends its outline, hence the name.

Amphibians

Reptiles and Amphibians belong to one common field of study-Herpetology. Reptiles are mostly covered with scales. Amphibians have soft and moist skin. There are more than 1082 species of reptiles and amphibians found in our country, of which 43 are found in this park. Check out some of the interesting ones here.

Scan the QR code to read in Marathi



Size

Non-Venomous

Venomous

Did you know?

You can contact Wild Habitat Reptile Rescue Foundation in case of snake bites near your locality. Green 99 Viper

Create a pond for frogs and toads.



DCB BANK




BIRDS OF AMBIVLI

Two legged lords of air


What makes a bird, a bird?

All members of the Class Aves are air-breathing, two-legged, airborn, warm-blooded, and lay eggs. These characteristics can only be observed in one class belonging to other classes. For example, Mammalian birds have wings, and certain reptiles lay eggs. However, birds are distinguished by their feathers and hollow bones, which enable them to fly.




Shikra - The Hunter

Strong beak, sharp claws, and good eyesight make it a good hunter. They build a cup-shaped nest on a twig.




Asian Palm Swift - The Clinger

A rapid flyer observed in the forest canopy. Feeds on insects. They have a unique palm-leaf-like shape.




Cattle Egret - The Cattle Bird

They are so-called because they frequently ride cattle. The bird also flies and other things grazing cattle flush out. They build a twig nest.




Green Bee-eater - The Acrobat

One long, pointed tail feather is characteristic of this bird. Performs aerial acrobatics in catching insects. Their feathers blend into the greenery. Nesting on eaves, banks, they burrow.




Purple Sunbird - Nestor Feeder

It's a "nester" because its feathers reflect sunlight. Their curved beak lets them sip nectar from tubular flowers. They make a colorful and dry plant nest.




Black Vented Bulbul - The Fruit Licker

Common garden bird named for its use under the tail being and Drogans and other birds used to make cup-shaped nest in branch-fork.




Indian Parakeet - National Bird

These colorful birds have dull feathers on the forehead and colourful ones on the body. The nest is a stiff structure lined with wool and hair.




Black Orange - The Palleman

This swift forked tail bird divides its food from the forest and forest near forest on habit. They build a little nest in a branch using fine twigs and cobweb-like fibers.



Asian Keel - The Bird That Uses Sponges


Males are well-known for their melodious calls, while females are well-known for laying their eggs in a nest.



Tuller Bird - The Tuller

A typical garden bird with an upright tail. It makes a cup-shaped nest as the remains, or probably leaf edges together and stuffing it with cotton and grass.

Scan the QR code to read in Marathi



Size


Non-Venomous

Venomous


Did you know?

You can contact Wild Habitat Reptile Rescue Foundation in case of snake bites near your locality. Green 99 Viper

Create a pond for frogs and toads.



DCB BANK



AMBIVLI BIODIVERSITY PARK

A place to enjoy and experience

With only 2.5% of the world's land area, India has 7.5% of the world's biodiversity.

Red-chinned Bulbul (D) (V) (C) (S)

Common Bulbul

Blue Jay

Indian Parakeet

Black Vented Bulbul

Asian Keel

Welcome to the Ambivli Biodiversity Park. Kalyan Dombivli Municipal Corporation maintains and protects this 40-acre woods. The Kalyan Ring Road Project felled 12,000 trees, therefore they planted 12,000 saplings. DCB Bank Ltd's CSR activity with Naturewatch Foundation added 10,000 plants in 2021 and the Ambivli Biodiversity Park was established.

Definition
Biodiversity refers to the wide range of organisms found on earth. The structural and functional aspects across the various kingdoms that characterize the ecosystem.

A Biodiversity Park is a place where native plants and animals are preserved. It aids in the protection of environments of extinction and conservation.

Simply by feeding and being nearby, biodiversity parks can spread in India.



Scan the QR code to read in Marathi




10 THINGS YOU CAN DO TO HELP BIODIVERSITY

Living a green lifestyle

Calculate your "Carbon Footprint" to estimate your influence.

Electricity

Energy

Water

Waste

Transport

Shopping

Food

Travel

Home

Work

Leisure


Other

The footprint is an innovative tool used to measure, calculate, and communicate a product's ecological, economic, and social sustainability impacts.

Our daily activities damage the planet's biodiversity. Most people don't intentionally harm biodiversity, but it's hard to notice how our actions affect others. Some simple habit modifications can reduce your negative consequences. Here are ten simple ways to lessen your environmental footprint and biodiversity impact.

1. Get involved in ecological restoration in your area.
2. Reduce, reuse, and recycle, with an emphasis on the text one.
3. Buy organic food or grow your own!
4. Conserve water wherever possible.
5. Use environment-friendly products for cleaning.
6. Reduce use of pesticides and herbicides in garden care.
7. Aim for energy conservation as your home.
8. Save water wherever possible.
9. Reduce single person car use.
10. Try to ride a bicycle or use energy-efficient appliances.

Scan the QR code to read in Marathi



Size


Non-Venomous

Venomous


Did you know?

You can contact Wild Habitat Reptile Rescue Foundation in case of snake bites near your locality. Green 99 Viper

Create a pond for frogs and toads.



DCB BANK



Annexure 14: Bingo Design Files

LEAF BINGO

TYPES OF LEAVES AND LEAF ARRANGEMENT YOU OBSERVED TODAY

(A) LEAF TYPES: There are two types: Simple & Compound

Simple Whole leaf

Entire margin	Veinlets: divided into 3	Primary: divided into secondary veins	Unicostate: divided once
Peepal	Plum of Forest	White silk cotton	Sambal Chikola

Labelled margin

Wedge-shaped lobes	Triangular: divided twice	Looks like compound but simple
Cashew	Peepal Forest	Dhurasaki

(B) LEAF ARRANGEMENT: Placement of leaves on the stem.

Alternate	Opposite	Alternate & Opposite	Whorled
Mulberry	Cashew	Green Methuna	Tulsi

Vertical

Bluish	Yellow	Looks like compound but simple
Water orange	Agave	Pongrat

BARK BINGO

TYPES OF BARK YOU OBSERVED TODAY

Bark is the skin of the tree and it differs from tree to tree just like our fingerprints. Check out the different bark types here.

Smooth		Indian Elm	Indian Oak Tree	Peepal	Purwarji
Bleeding		Chhat Tree	Queen's Flower	Indian Cashewnut	Cashew
Scaly		Indian Laurel	Indian Lantana	Green Bell Tree	Green Shrub
Thorny		Kashmiri Elm	Red Silk Cotton	Indian Cashew Tree	White silk Cotton
Stripes		Tulsi	Black ash	Sambal Chikola	Dhurasaki

FRUIT BINGO

TYPES OF FRUITS YOU OBSERVED TODAY

There are different types of fruits some are formed from single flower while others from multiple flowers. Check out the different fruit types here.

A. Formed from single flower (Simple Fruit with single seed)

Mango	Indian Cashewnut	Indian Almond	Jamun

Legume (bean)

Samal (Chikola)	Plum of Forest	Black chick	Nut in Prickly Pear

Winged Fruit (Fruit with extensions that aid seed dispersal)

Alum	Ulm	Indian Elm	Peepal

B. Multiple Fruit (Cluster of flowers fused to form a single Fruit)

Jackfruit	Mulberry	Sugar Beet	Peepal

BUTTERFLY BINGO

TYPES OF BUTTERFLIES YOU OBSERVED TODAY

Butterflies are winged insects which are classified into six groups.

Swallowtails (wings with tails)

Common Mormon	Common Blue	Common Mormon	Yellow Jay

Brush-footed (one pair of leg used as brush)

Blue Tiger	Common Crow	Darkwinged Eggy	Plain Tiger

Whites and yellows (dominant colours are white and yellow)

Common Jackal	Common Ringlet	Orange Tip	Common Woodwing

Blues (have blue sheen inside the wings)

Indian Subden	Common Bluebell	Green Dancer	Plain Judy

INSECT BINGO

TYPES OF INSECTS YOU OBSERVED TODAY

Insect is a six-legged animal having body divided into three sections: Head, Thorax and Abdomen.

Beetles (have tough upper wings)

Water Beetle	Blue-black Ground Squirrel	Green Beetle	Orange-brown Beetle

Bugs (have soft and tough upperwings)

Green Bug	Red Cotton Bug	Black Bug	Chick

Wasps, Bees and Ants (have transparent wings)

Common Wasp	Honeybee	Ant	Praying Mantis

Manifolds (one pair of wings)

Common Housefly	Housefly	Housefly	Housefly

LEAF MARGINS BINGO

TYPES OF LEAF MARGINS YOU OBSERVED TODAY

Leaf margin is the outer edge of a leaf and they help in identification as well.

Entire (undivided)

Jamun	Banyan	Water	Green

Crenate (freely cren)

Indian persimmon	Hyphalythia	Jamaican Blue Spider	Mulberry

Serrate (saw-like)

Spinach	Spinach	Spinach	Spinach

Undulate (wavy)

Spinach	Spinach	Spinach	Spinach

Dentate

Spinach	Spinach	Spinach	Spinach

Labed

Peepal	Peepal	Peepal	Peepal

Palms/palmlike

Peepal	Peepal	Peepal	Peepal

Spiry

Peepal	Peepal	Peepal	Peepal

LEAF SHAPE BINGO

TYPES OF LEAVES SHAPES YOU OBSERVED TODAY

Leaf shapes are an easy tool to identify plants

Elliptical Types (broad leaves)

Holly Fig	Indian Elm	Indian Elm	Sambal Chikola Tree

Lanceolate Types (narrow leaves)

Peepal	Peepal	Peepal	Peepal

Oblong

Peepal	Peepal	Peepal	Peepal

Ovate (oval shape)

Peepal	Peepal	Peepal	Peepal

Baniform (kidney shaped)

Peepal	Peepal	Peepal	Peepal

Rhomboid

Peepal	Peepal	Peepal	Peepal

Coriata (heart-shaped)

Peepal	Peepal	Peepal	Peepal

Bilobed

Peepal	Peepal	Peepal	Peepal

BIRD BINGO

TYPES OF BIRDS YOU OBSERVED TODAY

Birds are warm blooded, feathered, two legged animals with hollow bones.

Perching Birds

Indian Parrot	Indian Parrot	Indian Parrot	Indian Parrot

Hook-bill

Indian Parrot	Indian Parrot	Indian Parrot	Indian Parrot

Tree Sling

Indian Parrot	Indian Parrot	Indian Parrot	Indian Parrot

3 forward pointing toes

Indian Parrot	Indian Parrot	Indian Parrot	Indian Parrot

Large Head/Bills

Indian Parrot	Indian Parrot	Indian Parrot	Indian Parrot

Short Neck

Indian Parrot	Indian Parrot	Indian Parrot	Indian Parrot

Culicous

Indian Parrot	Indian Parrot	Indian Parrot	Indian Parrot

Heavy body

Indian Parrot	Indian Parrot	Indian Parrot	Indian Parrot

Hooked bills

Indian Parrot	Indian Parrot	Indian Parrot	Indian Parrot

Predatory birds

Indian Parrot	Indian Parrot	Indian Parrot	Indian Parrot

Large water birds

Indian Parrot	Indian Parrot	Indian Parrot	Indian Parrot

Wood peckers

Indian Parrot	Indian Parrot	Indian Parrot	Indian Parrot

REPTILE BINGO

TYPES OF REPTILES YOU OBSERVED TODAY

Reptiles are animals covered with dry scales

A. LIZARDS

Agamids

Common Garden Lizard	Forest Lizard	Common Garden Lizard	Common Garden Lizard

Geckos

Bark Gecko	Black Gecko	Black Gecko	Black Gecko

Monitor Lizards

Common Monitor Lizard	Common Monitor Lizard	Common Monitor Lizard	Common Monitor Lizard

B. SNAKES

Blind Snakes

Blind Snake	Blind Snake	Blind Snake	Blind Snake

Pythons

Common Python	Common Python	Common Python	Common Python

Tree Snakes

Common Tree Snake	Common Tree Snake	Common Tree Snake	Common Tree Snake

Kaobacke

Common Kaobacke	Common Kaobacke	Common Kaobacke	Common Kaobacke

Colebrids

Common Colebrid	Common Colebrid	Common Colebrid	Common Colebrid

Vipers

Common Viper	Common Viper	Common Viper	Common Viper

Cobras

Common Cobra	Common Cobra	Common Cobra	Common Cobra

WHAT IS BINGO?
Get 4 in a row- Up,
Down, Across or
Diagonal to win.

FLOWER BINGO

TIME TO REFLECT











TYPES OF FLOWER ARRANGEMENT YOU OBSERVED TODAY









TYPES OF INFLORESCENCE (Flower arrangement on the stem)

A. Unbranched or Simple Inflorescence: There are two types Racemose and Cymose

1. Racemose -Lowest flower opens first but main stem keeps growing.

<p>Solitary</p>  <p>Hibiscus <input type="checkbox"/></p>	<p>Raceme</p>  <p>Peacock flower <input type="checkbox"/></p>	<p>Spike</p>  <p>Jamaican spike <input type="checkbox"/></p>	<p>Globose head</p>  <p>Powder-puff <input type="checkbox"/></p>
<p>Spadix</p>  <p>Banana <input type="checkbox"/></p>	<p>Corymb</p>  <p>Lantana <input type="checkbox"/></p>	<p>Capitulum</p>  <p>Wedelia <input type="checkbox"/></p>	<p>Spikelet</p>  <p>Grass <input type="checkbox"/></p>

2. Cymose- Flower at the tip opens first, rest lateral flowers develop later.

<p>Helicoid cyme</p>  <p>Hamelia <input type="checkbox"/></p>	<p>Scorpioid cyme</p>  <p>Tecoma <input type="checkbox"/></p>	<p>Bicarpous/Dichasial cyme</p>  <p>Bougainvillea <input type="checkbox"/></p>	<p>Multicarpous/Polychasial cyme</p>  <p>Calotropis <input type="checkbox"/></p>
<p>Corymbose cyme</p>  <p>ixora <input type="checkbox"/></p>	<p>B.Branched or Compound Panicle</p>  <p>Pride of India <input type="checkbox"/></p>	<p>C. Mixed Inflorescence</p>  <p>Wild Grape <input type="checkbox"/></p>	<p>D.Special inflorescence Hypanthodium</p>  <p>Ficus sp. <input type="checkbox"/></p>



Google to learn more about these terminologies



Annexure 15: Plantation review table

No.	Type	Common Name	Botanical Name	Planted Jul'21	Replanted	Review Mar'22	Regenerated or located	Review Jun'22	Regenerated	CP July 22	TC July 22	Review Sep'22	Review Dec'22	Review Mar'23
1	Herb	Agave	<i>Agave americana</i>	100	0	99	10	85	0			85	100	96
2	Herb	Aloe vera	<i>Aloe barbadensis miller</i>	50	0	30	0	19	0			13	12	13
3	Herb	Areca Palm	<i>Areca Palm</i>	50	5	48	0	49	1	14		55	54	52
4	Herb	Bamboo	<i>Bambusa bambos</i>	10	0	8	0	16	8	61		11	39	30
5	Herb	Brahmi	<i>Bacopa moneri</i>	25	0	25	0	0	0			25	25	25
6	Herb	Cane palm	<i>Callamous sp</i>	20	0	17	0	9	0			3	20	20
7	Herb	Cardamom	<i>Elettaria cardamomum</i>	15	1	15	0	135	120			42	0	25
8	Herb	Fan Palm	<i>Livistona chinensis</i>	5	0	5	0	5	0			5	5	5
9	Herb	Hadjod	<i>Cissus quadrangularis</i>	50	0	47	0	77	30	31		66	87	70
10	Herb	Holi basil	<i>Ocimum tenuiflorum</i>	50	3	45	0	361	316			117	216	210
11	Herb	Kewada	<i>Pandanus odorifer</i>	30	0	26	0	22	0			26	22	20
12	Herb	Kufiya	<i>Cuphea hyssopifolia</i>	80	0	72	0	80	8	61		45	52	56
13	Herb	Lemon grass	<i>Cymbopogon citratus</i>	50	0	41	0	40	0			31	15	21
14	Herb	Miracle Leaf	<i>Kalanchoe pinnata</i>	61	22	50	0	247	197	50		101	100	98
15	Herb	Office Time	<i>Portulaca</i>	50	0		0	0	0			0	0	0
16	Herb	Pepper mint	<i>Mentha piperita</i>	50	0	45	0	0	0			30	0	0
17	Herb	Periwinkle	<i>Catharanthus roseus</i>	100		89	10	64	0			0	1	1
18	Herb	Spiral Ginger	<i>Costus pictus</i>	25	0	20	0	181	161			0	0	0
19	Herb	Tuberose	<i>Polianthes tuberosa</i>	150	10	0	0	0	0			2	0	0
20	Herb	Tulsi	<i>Ocimum sanctum</i>	50		50	0	47	0			45	40	40

21	Herb	Turmeric	<i>Curcuma sp.</i>	50	5	40	0	0	0			39	48	40
22	Herb	Vetiver grass	<i>Chrysopogon zizanioides</i>	75		71	0	47	0			22	12	20
23	Herb	Water lily	<i>Nymphaea sp.</i>	5		5	0	0	0			0	1	1
24	Herb	Wild Banana	<i>Musa sp.</i>	150		58	0	26	0			38	60	57
25	Shrub	Adulsa	<i>Justicia adhatoda</i>	130	10	120	0	110	0	42		128	132	133
26	Shrub	Ashwagan dha	<i>Withania somnifera</i>	50		28	0	0	0			0	0	0
27	Shrub	Barleria	<i>Barleria cuspidatus</i>	35	25	28	0	29	1	35		47	47	54
28	Shrub	Blood flower	<i>Asclepias curassavica</i>	50		42	0	0	0			0	0	0
29	Shrub	Blue pea vine	<i>Clitoria ternatea</i>	50		50	0	52	2			50	40	35
30	Shrub	Bougainvillea	<i>Bougainvillea spectabilis</i>	0						165		27	20	52
31	Shrub	Christ Thorn	<i>Carrisa congesta</i>	50		30	7	35	5			23	34	36
32	Shrub	Creeping foxglove	<i>Asystasia gangetica</i>	0	30	0	0	34	4	50		50	50	43
33	Shrub	Curry leaves	<i>Murraya koenigii</i>	25	11	21	0	20	0	30		15	28	30
34	Shrub	Datura	<i>Datura metel</i>	0	1	0	0	0	0			0	0	0
35	Shrub	Firecracker flower	<i>Crossandra infundibuliformis</i>	75		30	0	126	96			0	50	42
36	Shrub	Giant Milkweed /Rui	<i>Calotropis gigantea</i>	90		70	0	59	0	40		49	55	58
37	Shrub	Glory bower	<i>Volkameria inermis</i>	100		100	0	84	0			104	104	90
38	Shrub	Henna	<i>Lawsonia inermis</i>	25		25	0	26	1			21	25	25
39	Shrub	Hiptage	<i>Hiptage benghalensis</i>	25		25	0	30	5			23	0	22
40	Shrub	Ice Cream Creeper	<i>Antigonon leptopus</i>	25		2	1	0	0			0	0	0
41	Shrub	Indian Birthwort	<i>Aristolochia indica</i>	0	2	0	0	0	0			2	0	0
42	Shrub	Ixora	<i>Ixora coccinea</i>	25	25	24	0	25	2	62		39	31	26
43	Shrub	Jacomentia	<i>Ipomeoa Jacomentia</i>	75		62	0	65	3			25	75	75
44	Shrub	Jamaican Blue Spike	<i>Stachytarpetta mutabilis</i>	3386	50	2987	0	2940	0	150		3162	2223	2016
45	Shrub	Lantana	<i>Lantana</i>	150		40	0	50	10			150	6	11

		purple	<i>camara</i>											
46	Shrub	Lantana Red	<i>Lantana camara</i>	100		62	2	72	10			72	20	10
47	Shrub	Lantana white	<i>Lantana camara</i>	150		124	0	125	1			125	3	15
48	Shrub	Lantana yellow	<i>Lantana camara</i>	130		62	0	72	10			51	2	1
49	Shrub	Lantern bush	<i>Clerodendrum paniculatum</i>	25		25	0	15	0			0	0	0
50	Shrub	MariGold	<i>Tagetes sp.</i>		36	0	0	0	0			0	0	0
51	Shrub	Mini Ixora	<i>Ixora brachiata</i>	120		80	0	25	0			82	91	130
52	Shrub	Mini Rose	<i>Rosa chinensis</i>	50		7	0	4	0	15		48	53	35
53	Shrub	Night Blooming Jasmine	<i>Cestrum nocturnum</i>	150	15	131	0	0	0			1	3	3
54	Shrub	Spicy jatropa	<i>Jatropha integerrima</i>									43	39	45
55	Shrub	Passion flower	<i>Passiflora edulis</i>	350		93	0	36	0			11	3	4
56	Shrub	Pentas (red, pink, white)	<i>Pentas lanceolata</i>	100	21	77	0	3	0			0	0	0
57	Shrub	Powder Puff	<i>Calliandra sp.</i>	100		81	0	87	6			90	30	22
58	Shrub	Rangoon Creeper	<i>Quisqualis indica</i>	50	5	43	0	39	0			23	10	12
59	Shrub	Rattlepod	<i>Crotalaria retusa</i>	15	15	16	0	1	0	200		215	226	88
60	Shrub	Russelia	<i>Russelia</i>	100	61	69	0	39	0			74	42	44
61	Shrub	Scarlet bush	<i>Hamelia patens</i>	100	17	71	0	43	0			44	19	11
62	Shrub	Shatavari	<i>Asparagus racemosus</i>	100		70	0	96	26			38	93	90
63	Shrub	Shoe Flower	<i>Hibiscus</i>	100		35	0	41	6			30	0	5
64	Shrub	Tecoma	<i>Tecoma sp.</i>	150		134	0	67	0			43	22	25
65	Shrub	Touch me not	<i>Mimosa pudica</i>	100		86	0	125	25			150	10	30
66	Shrub	Wedelia	<i>Wedelia trilobata</i>	100		100	0	126	26	264		416	300	300
67	Shrub	Wild Jasmine	<i>Jasminum malabaricum</i>	25		22	0	20	0			17	13	10
68	Shrub	Zinnia	<i>Zinnia elegans</i>	0	80	0	0	0	0			0	0	0
69	Shrub	Fever nut	<i>Caesalpinia bonduc</i>							8		8		10
70	Tree	African	<i>Spathodea</i>	10		8	0	9	1			11	0	0

		tulip	<i>campanulata</i>											
71	Tree	Alexandrian laurel (Undi)	<i>Calophyllum inophyllum</i>	5		4	0	0	0	10		1	0	0
72	Tree	Allspice	<i>Pimenta dioica</i>	5		4	0	2	0			3	0	0
73	Tree	Amla	<i>Phyllanthus emblica</i>	25	2	25	0	26	1			25	10	13
74	Tree	Arjun	<i>Terminalia arjuna</i>	25		31	6	25	0	20		35	34	26
75	Tree	Ashoka	<i>Saraca asoka</i>	80		80	0	81	1			62	61	26
76	Tree	Badam	<i>Terminalia catappa</i>	40		40	0	40	0			19	40	33
77	Tree	Bael Tree	<i>Aegle marmelos</i>	40		37	0	16	0	15		26	11	10
78	Tree	Bakul	<i>Mimusops elengi</i>	25		24	0	4	0	15		28	20	9
79	Tree	Barringtonia	<i>Barringtonia acutangula</i>	5		3	0	20	17			0	0	0
80	Tree	Behada	<i>Terminalia bellirica</i>	25	15	36	17	4	0			31	24	15
81	Tree	Ber	<i>Ziziphus jujuba</i>	50		50	0	33	0			35	4	10
82	Tree	Bhendi	<i>Thespesia populnea</i>	20		17	0	21	4			20	9	8
83	Tree	Bidi leaf tree	<i>Bauhinia racemosa</i>	5		5	0	5	0			5	5	3
84	Tree	Bottle brush	<i>Callistemon sp.</i>	16	25	13	0	15	2			12	0	0
85	Tree	Candahar tree (Shivan)	<i>Gmelina arborea</i>	20	15	28	10	13	0	5		24	3	4
86	Tree	Candle tree	<i>Senna alata</i>	0	1	0	0	0	0			1	0	0
87	Tree	Champak	<i>Michelia champaca</i>	80		55	5	50	0			11	10	10
88	Tree	Cinnamonum	<i>Cinnamomum sp.</i>	5	1	4	0	2	0			0	1	1
89	Tree	Coral Jasmine	<i>Nyctanthes arbor-tristis</i>	125		125	0	65	0			66	54	23
90	Tree	Drumstick tree	<i>Moringa indica</i>	20		18	0	4	0			7	5	10
91	Tree	East Indian Rosewood	<i>Dalbergia lanceolaria</i>	40		40	0	48	8			38	40	35
92	Tree	Flame of the Forest	<i>Butea monosperma</i>	30		30	0	29	0			24	9	5
93	Tree	Governor's Plum	<i>Flacourtia indica</i>	28		28	0	28	0			5	0	20

94	Tree	Guava	<i>Psidium guajava</i>	15	60	58	0	27	0	5		44	44	31
95	Tree	Gular	<i>Ficus racemosa</i>	50		50	0	49	0			59	23	25
96	Tree	Hairy Fig	<i>Ficus hispida</i>	15		15	0	19	4			16	18	10
97	Tree	Indian Bay Leaf	<i>Cinnamomum tamala</i>	5		11	6	5	0			2	3	8
98	Tree	Indian Butter Tree	<i>Madhuca longifolia var. latifolia</i>	40		39	37	20	0	2		27	23	22
99	Tree	Indian cherry	<i>Cordia dichotoma</i>	25		19	10	11	0			18	11	0
100	Tree	Indian Coral Tree	<i>Erythrina stricta</i>	25		13	9	11	0	6		6	7	5
101	Tree	Indian Cork Tree	<i>Millingtonia hortensis</i>	100		56	35	30	0			66	55	15
102	Tree	Indian elm	<i>Holoptelea integrifolia</i>	25	20	20	0	15	0	13		26	8	11
103	Tree	Indian Soap berry	<i>Sapindus mukorossi</i>	25		25	22	5	0			20	21	21
104	Tree	Jackfruit Tree	<i>Artocarpus heterophyllus</i>	5		4	0	4	0	5		7	10	12
105	Tree	Jamun	<i>Syzygium cumini</i>	50	1	45	29	53	8	6		53	45	35
106	Tree	Kadamba	<i>Neolamarckia cadamba</i>	51	20	45	9	55	10	5		61	64	47
107	Tree	Kalamb	<i>Mitragyna parvifolia</i>	65		56	37	60	4			60	47	36
108	Tree	Kavat/Wood Apple	<i>Limonia acidissima</i>							15		15	0	6
109	Tree	Khair	<i>Senegalia catechu</i>	10		10	5	15	5		8	6	6	9
110	Tree	Khejdi, Shami	<i>Prosopis cineraria</i>	5		5	0	2	0			0	3	2
111	Tree	Laburnum	<i>Cassia fistula</i>	100		84	47	15	0	34		109	70	60
112	Tree	Lemon tree	<i>Citrus sp.</i>		1	0	0	1	1			0	0	0
113	Tree	Macaranga	<i>Macaranga peltata</i>	15		15	0	11	0			13	12	30
114	Tree	Mango	<i>Mangifera indica</i>	10	1	9	0	7	0		8	11	14	12
115	Tree	Mast Tree	<i>Polyalthia longifolia</i>	15		10	0	10	0			9	10	9
116	Tree	Mulberry	<i>Morus alba</i>	30		30	0	30	0			30	17	21
117	Tree	Neem	<i>Azadirachta indica</i>	17		27	14	54	27			7	12	10

118	Tree	Orchid tree	<i>Bauhinia purpurea</i>	5		5	0	11	6			5	5	5
119	Tree	Pala Indigo	<i>Wrightia tinctoria</i>	60		60	0	48	0			46	25	15
120	Tree	Papaya	<i>Carica papaya</i>	20	10	18	0	2	0			2	1	0
121	Tree	Peanut Butter Tree	<i>Bunchosia glandulifera</i>	25		20	0	13	0			0	0	0
122	Tree	Peepal/Pi mpal	<i>Ficus religiosa</i>	10		14	9	15	1	15		22	8	5
123	Tree	Pink Shower	<i>Cassia javanica</i>	5		5	0	0	0			5	0	0
124	Tree	Pongam/ Karanj	<i>Millettia pinnata</i>	40		40	0	40	0			44	41	30
125	Tree	Pride of India	<i>Lagerstroemia speciosa</i>	50		50	0	54	4	10		51	48	20
126	Tree	Putranjiva	<i>Putranjiva roxburghii</i>	20		20	0	16	0			32	16	15
127	Tree	Red bead Tree	<i>Adenanthera pavonina</i>	5		5	1	1	0			3	4	4
128	Tree	Red Silk Cotton	<i>Bombax ceiba</i>	45		43	0	21	0	5		38	15	25
129	Tree	Scholar's Tree	<i>Alstonia scholaris</i>	50		49	0	43	0			41	20	26
130	Tree	Shankasur	<i>Caesalpinia pulcherrima</i>	95	13	91	0	80	0		100	85	105	122
131	Tree	Shikakai	<i>Senegalia rugata</i>	15		14	0	13	0			18	16	16
132	Tree	Siamese cassia	<i>Senna siamea</i>	15		15	0	15	0			12	0	1
133	Tree	Singapore cherry	<i>Muntingia calabura</i>	80		80	0	70	0			61	76	77
134	Tree	Siris Tree	<i>Albizia lebbek</i>	5		5	0	5	0			5	0	0
135	Tree	Slow match tree	<i>Careya arborea</i>	5		10	5	0	0			2	0	0
136	Tree	Surangi	<i>Mammea suriga</i>	5		5	2	7	2			5	5	5
137	Tree	Tamarind	<i>Tamarindus indicus</i>	45		39	0	12	0			18	14	15
138	Tree	Tetu	<i>Oroxylum indicum (Tetu)</i>	15		13	0	9	0			11	13	15
139	Tree	Jungli Badam	<i>Sterculia foetida</i>	50		47	0	30	0	15		65	44	45
140	Tree	Wild Almond	<i>Terminalia catappa</i>	15		15	0	73	58			35	79	80
141	Tree	White silk	<i>Ceiba</i>	0						9		9	5	6

		cotton	<i>pentandra</i>											
Total				988 4	63 5	7992	345	785 8	12 44	14 88	11 6	806 6	621 1	57 62
	Tree	Unidenti ed										17		10 6
Grand Total				988 4	63 5	7992	345	785 8	12 44	14 88	11 6	808 3	621 1	58 68
			Survival rate %					92%				75.5 0%	76.8 0%	60. 8%
			Mortality rate %					8%				24.5 0%	23.2 0%	39. 2%

Annexure 16: Thematic Garden Wise Plantation Review Data

Astral Garden		Bee Garden		Bird Garden	
Plant Name	Number of plants	Plant Name	Number of plants	Plant Name	Number of plants
Arjun	7	Blue pea vine	35	Awla	9
Awla	5	Bouganvillea	61	Christ thorn	10
Bel	5	Crotolaria	40	Hamelia	4
Fanpalm	5	Jamaican	195	Indian labrum	2
Fever nut	5	Lantana violet	10	Jamun	1
Canepalm	5	Lantana white	10	Mulberry	15
Jamun	5	Mini rose	28	Palash	6
Kadam	5	Passion flower	17	Papaya	1
Khair	8	Surungi	10	Peepal	3
Mango	5	Tecoma	12	Powder puff	26
Palash	5	Touchme not	30	Rangoon creeper	6
Peepal	5	Trumpet creeper	27	Red silk cotton	6
Red silk cotton	4	Wedelia	300	Russelia	12
Shami	2	Total	775	Scarlet bush	1
Shankasur	54			Singapore cherry	57
Total	125			Umber	9
				Total	168

Medicine Garden		Bat Garden		Butterfly Garden	
Plant Name	Number of plants	Plant Name	Number of plants	Plant Name	Number of plants
Adulsa	127	Agave	91	Areca palm	57
Aloe vera	13	Apta	3	Barleria	54
Arjun	16	Ashok	10	Bel	4
Bel	9	Bahava	8	Bor	4
Brahmi	25	Bakul	16	Bouganvilia	5
Cardamom	25	Bamboo	28	Calotropis	6
Hadjod	66	Cadamba	4	Cinnamon	6
Henna	25	Calotropis	43	Creeping foxglove	43
Holy basil	201	Desi umber	15	Governors plum	19
Indian bay leaf	25	Fever nut	4	Hiptage	14
Lemon grass	21	Guava	45	Jamun	5
Neem	10	Indian almond	11	Jungle gerrarium	26
Panfuti	87	Jackfruit	3	Kadipatta	30

Shatavri	80	Jamun	12	kufia	56
Soapnut	4	Kadam	8	Lantana white	7
Sweet basil	40	Kaith	9	Mango	7
Turmeric	19	Kevda	20	Mini ixora	130
Vetiver	2	Mango	1	Muskanda	4
Total	795	Mehendi	104	Panfuti	6
		Mahua	5	Peepal	4
		Mulberry	8	Sheevan	12
		Paarijaat	16	Shoeflower	42
		Raatrani	2	Siamese cassia	1
		Shevga	9	Spicy jatropaha	45
		Tetu	9	Shankasur	53
		Wild almond	12	Tamhan	5
		Wild banana	45	Tecoma	13
		Total	541	Wavda	42
				Wild almond	2
				Total	702

Annexure 17: Photographs of Flowering species at site



Wild Banana



Shoe flower



Mussaenda flower



Purple Lantana



Purple and white Lantana



Jaquemontia



Spicy Jatropha



Red Lantana



Bougainvillea



Bryophyllum flower



Giant Milkweed



Peacock flower



Powder puff



Yellow lantana



Singapore cherry flower



Russelia flowers

Annexure 18: Before After Site Photographs

- Bee garden



Before: 12 May 2021

After: 6 July 2021



July 2022



September 2022



December 2022



March 2023

- **Bat garden**



Before (12 May 2021)



After Date: 6 July 2021



June 2022



September 2022



December 2022



March 2023

- Medicinal garden

Before (12 May 2021)



After (6 July 2021)



After (December 2022)



March 2023



- **Rashi Van**

Before (12 May 2021)



After (6 July 2021)



After (September 2022)



December 2022



March 2023



Butterfly garden
Before (12 may 2021)



After (June 2022)



After (September 2022)



After (December 2022)



March 2023



- Bird garden

Before (12 may 2021)



After (6 July 2021)



After (June 2022)



After (September 2022)



After (December 2022)



March 2023



Annexure 19: List of Carbon Sequestration plants

Sr.No.	Date	Area	Common Name	Scientific Name	Girth in cms	Carbon stored in Kg
1	11-10-22	Astral garden	Kalamb	<i>Mitragyna parvifolia</i>	12.7	3
2	11-10-22	Astral garden	Kalamb	<i>Mitragyna parvifolia</i>	12.7	3
3	11-10-22	Astral garden	Arjun	<i>Terminalia arjuna</i>	20	8
4	11-10-22	Astral garden	Khair	<i>Senegalia catechu</i>	10.16	2
5	11-10-22	Astral garden	Khair	<i>Senegalia catechu</i>	22.86	10
6	11-10-22	Astral garden	Amla	<i>Phyllanthus emblica</i>	22.86	10
7	11-10-22	Astral garden	Amla	<i>Phyllanthus emblica</i>	15.24	4
8	11-10-22	Astral garden	Peepal	<i>Ficus religiosa</i>	10.16	2
9	11-10-22	Astral garden	Peepal	<i>Ficus religiosa</i>	10.16	2
10	11-10-22	Astral garden	Peepal	<i>Ficus religiosa</i>	3	0
11	11-10-22	Astral garden	Khair	<i>Senegalia catechu</i>	12.7	3
12	11-10-22	Astral garden	Shankasur	<i>Caesalpinia pulcherrima</i>	10.16	2
13	11-10-22	Astral garden	Amla	<i>Phyllanthus emblica</i>	3	0
14	11-10-22	Astral garden	Amla	<i>Phyllanthus emblica</i>	10.16	2
15	11-10-22	Astral garden	Arjun	<i>Terminalia arjuna</i>	3	0
16	11-10-22	Astral garden	Fever nut tree	<i>Guilandina bonduc</i>	10.16	2
17	11-10-22	Astral garden	Red silk cotton tree	<i>Bombax ceiba</i>	7.62	1
18	11-10-22	Astral garden	Arjun	<i>Terminalia arjuna</i>	10.16	2
19	11-10-22	Astral garden	Shankasur	<i>Caesalpinia pulcherrima</i>	10.16	2
20	11-10-22	Astral garden	Shankasur	<i>Caesalpinia pulcherrima</i>	3	0
21	11-10-22	Astral garden	Shankasur	<i>Caesalpinia pulcherrima</i>	3	0
22	11-10-22	Astral garden	Mulberry	<i>Morus alba</i>	3	0
23	11-10-22	Bat garden	Mulberry	<i>Morus alba</i>	7.62	1
24	11-10-22	Bat garden	Indian Almond	<i>Terminalia catappa</i>	10.16	2
25	11-10-22	Bat garden	Jackfruit	<i>Artocarpus heterophyllus</i>	10.16	2
26	11-10-22	Bat garden	Indian Almond	<i>Terminalia catappa</i>	7.62	1
27	11-10-22	Bat garden	Pride of India	<i>Lagerstromia speciosa</i>	15.24	4
28	11-10-22	Bat garden	Indian Almond	<i>Terminalia catappa</i>	12.7	3
29	11-10-22	Bat garden	Kadam	<i>Neolamarckia cadamba</i>	15.24	4
30	11-10-22	Bat garden	Kalamb	<i>Mitragyna parvifolia</i>	22.86	10
31	11-10-22	Bat garden	Mulberry	<i>Morus alba</i>	12.7	3

32	11-10-22	Bat garden	Mulberry	<i>Morus alba</i>	12.7	3
33	11-10-22	Bat garden	Umber	<i>Ficus racemosa</i>	12.7	3
34	11-10-22	Bat garden	Indian Almond	<i>Terminalia catappa</i>	17.78	6
35	11-10-22	Bat garden	Umber	<i>Ficus racemosa</i>	12.7	3
36	11-10-22	Bat garden	Pride of India	<i>Lagerstromia speciosa</i>	10.16	2
37	11-10-22	Bat garden	Indian Almond	<i>Terminalia catappa</i>	17.78	6
38	11-10-22	Bat garden	Bakul	<i>Mimsops elengi</i>	3	0
39	11-10-22	Bat garden	Umber	<i>Ficus racemosa</i>	3	0
40	11-10-22	Bat garden	Kalamb	<i>Mitragyna parvifolia</i>	3	0
41	11-10-22	Bat garden	Umber	<i>Ficus racemosa</i>	3	0
42	11-10-22	Bat garden	Jamun	<i>Syzygium cumini</i>	3	0
43	11-10-22	Bat garden	Bakul	<i>Mimsops elengi</i>	3	0
44	11-10-22	Bat garden	Bakul	<i>Mimsops elengi</i>	3	0
45	11-10-22	Bat garden	Kalamb	<i>Mitragyna parvifolia</i>	3	0
46	11-10-22	Bat garden	Pride of India	<i>Lagerstromia speciosa</i>	25.4	12
47	11-10-22	Bat garden	Kalamb	<i>Mitragyna parvifolia</i>	15.24	4
48	11-10-22	Bat garden	Jamun	<i>Syzygium cumini</i>	20	8
49	11-10-22	Bat garden	Guava	<i>Psidium guajava</i>	3	0
50	11-10-22	Bat garden	Tetu	<i>Oroxylum indicum</i>	3	0
51	11-10-22	Bat garden	Kalamb	<i>Mitragyna parvifolia</i>	3	0
52	11-10-22	Bat garden	Bakul	<i>Mimsops elengi</i>	3	0
53	11-10-22	Bat garden	Bakul	<i>Mimsops elengi</i>	3	0
54	11-10-22	Bat garden	Kadam	<i>Neolamarckia cadamba</i>	3	0
55	11-10-22	Bat garden	Kadam	<i>Neolamarckia cadamba</i>	15.24	4
56	11-10-22	Bat garden	Mulberry	<i>Morus alba</i>	15.24	4
57	11-10-22	Bat garden	Kalamb	<i>Mitragyna parvifolia</i>	5	0
58	11-10-22	Bat garden	Tetu	<i>Oroxylum indicum</i>	3	0
59	11-10-22	Bat garden	Umber	<i>Ficus racemosa</i>	7.62	1
60	11-10-22	Bat garden	Tetu	<i>Oroxylum indicum</i>	3	0
61	11-10-22	Bat garden	Umber	<i>Ficus racemosa</i>	10.16	2
62	11-10-22	Bat garden	Kadam	<i>Neolamarckia cadamba</i>	10.16	2
63	11-10-22	Bat garden	Kadam	<i>Neolamarckia cadamba</i>	7.62	1
64	11-10-22	Bat garden	Kadam	<i>Neolamarckia cadamba</i>	15.24	4
65	11-10-22	Medicinal garden	Kadam	<i>Neolamarckia cadamba</i>	17.78	6
66	11-10-22	Medicinal garden	Pride of India	<i>Lagerstromia speciosa</i>	15.24	4
67	11-10-22	Medicinal garden	Pride of India	<i>Lagerstromia speciosa</i>	15.24	4
68	11-10-22	Medicinal	Indian	<i>Terminalia catappa</i>	17.78	6

		garden	Almond			
69	11-10-22	Medicinal garden	Mulberry	<i>Morus alba</i>	3	0
70	11-10-22	Medicinal garden	Indian Almond	<i>Terminalia catappa</i>	3	0
71	11-10-22	Medicinal garden	Mulberry	<i>Morus alba</i>	10.16	2
72	11-10-22	Medicinal garden	Umber	<i>Ficus racemosa</i>	10.16	2
73	11-10-22	Medicinal garden	Umber	<i>Ficus racemosa</i>	10.16	2
74	11-10-22	Medicinal garden	Guava	<i>Psidium guajava</i>	7.62	1
75	11-10-22	Medicinal garden	Tetu	<i>Oroxylum indicum</i>	10.16	2
76	11-10-22	Medicinal garden	Jamun	<i>Syzygium cumini</i>	10.16	2
77	11-10-22	Medicinal garden	Pride of India	<i>Lagerstromia speciosa</i>	7.62	1
78	11-10-22	Medicinal garden	Tetu	<i>Oroxylum indicum</i>	22.86	10
79	11-10-22	Medicinal garden	Jamun	<i>Syzygium cumini</i>	10.16	2
80	11-10-22	Medicinal garden	Pride of India	<i>Lagerstromia speciosa</i>	5	0
81	11-10-22	Medicinal garden	Indian Almond	<i>Terminalia catappa</i>	15.24	4
82	11-10-22	Medicinal garden	Indian Almond	<i>Terminalia catappa</i>	12.7	3
83	11-10-22	Medicinal garden	Indian Almond	<i>Terminalia catappa</i>	5	0
84	11-10-22	Medicinal garden	Guava	<i>Psidium guajava</i>	5	0
85	11-10-22	Medicinal garden	Tetu	<i>Oroxylum indicum</i>	5	0
86	11-10-22	Medicinal garden	Pride of India	<i>Lagerstromia speciosa</i>	7.62	1
87	11-10-22	Medicinal garden	Indian Almond	<i>Terminalia catappa</i>	12.7	3
88	11-10-22	Medicinal garden	Mulberry	<i>Morus alba</i>	12.7	3
89	11-10-22	Medicinal garden	Umber	<i>Ficus racemosa</i>	7.62	1
90	11-10-22	Medicinal garden	Indian Almond	<i>Terminalia catappa</i>	10.16	2
91	11-10-22	Medicinal garden	Pride of India	<i>Lagerstromia speciosa</i>	12.7	3
92	14-10-22	Boundary wall	Khair	<i>Senegalia catechu</i>	2.54	0

93	14-10-22	Boundary wall	Kalamb	<i>Mitragyna parvifolia</i>	2.54	0
94	14-10-22	Boundary wall	Kadam	<i>Neolamarckia cadamba</i>	2.54	0
95	14-10-22	Boundary wall	Arjun	<i>Terminalia arjuna</i>	5.08	0
96	14-10-22	Boundary wall	Kalamb	<i>Mitragyna parvifolia</i>	2.54	0
97	14-10-22	Boundary wall	Indian cherry	<i>Cordia dichotoma</i>	5.08	0
98	14-10-22	Boundary wall	Indian cherry	<i>Cordia dichotoma</i>	2.54	0
99	14-10-22	Boundary wall	Indian Cork Tree	<i>Millingtonia hortensis</i>	2.54	0
100	14-10-22	Boundary wall	East Indian Rosewood	<i>Dalbergia lanceolaria</i>	2.54	0
101	14-10-22	Boundary wall	Wild Almond	<i>Sterculia foetida</i>	2.54	0
102	14-10-22	Boundary wall	Wild Almond	<i>Sterculia foetida</i>	2.54	0
103	14-10-22	Boundary wall	Indian Cork Tree	<i>Millingtonia hortensis</i>	2.54	0
104	14-10-22	Boundary wall	Indian laburnum	<i>Cassia fistula</i>	2.54	0
105	14-10-22	Boundary wall	Kadam	<i>Neolamarckia cadamba</i>	2.54	0
106	14-10-22	Boundary wall	Kalamb	<i>Mitragyna parvifolia</i>	5.08	0
107	14-10-22	Boundary wall	Wild Almond	<i>Sterculia foetida</i>	5.08	0
108	14-10-22	Boundary wall	Indian Cork Tree	<i>Millingtonia hortensis</i>	12.7	3
109	14-10-22	Boundary wall	Indian laburnum	<i>Cassia fistula</i>	5.08	0
110	14-10-22	Boundary wall	East Indian Rosewood	<i>Dalbergia lanceolaria</i>	7.62	1
111	14-10-22	Boundary wall	Kadam	<i>Neolamarckia cadamba</i>	7.62	1
112	14-10-22	Boundary wall	East Indian Rosewood	<i>Dalbergia lanceolaria</i>	20	8
113	14-10-22	Boundary wall	Umbur	<i>Ficus racemosa</i>	2.54	0
114	14-10-22	Boundary wall	Indian laburnum	<i>Cassia fistula</i>	12.7	3
115	14-10-22	Boundary wall	Wild Almond	<i>Sterculia foetida</i>	5.08	0
116	14-10-22	Boundary wall	East Indian Rosewood	<i>Dalbergia lanceolaria</i>	7.62	1
117	14-10-22	Boundary wall	East Indian Rosewood	<i>Dalbergia lanceolaria</i>	12.7	3
118	14-10-22	Boundary wall	Wild Almond	<i>Sterculia foetida</i>	12.7	3
119	14-10-22	Boundary wall	Kadam	<i>Neolamarckia cadamba</i>	10.16	2
120	14-10-22	Boundary wall	Wild Almond	<i>Sterculia foetida</i>	17.78	6

121	14-10-22	Boundary wall	Wild Almond	<i>Sterculia foetida</i>	7.62	1
122	14-10-22	Boundary wall	Wild Almond	<i>Sterculia foetida</i>	10.16	2
123	14-10-22	Boundary wall	Kadam	<i>Neolamarckia cadamba</i>	7.62	1
124	14-10-22	Boundary wall	Wild Almond	<i>Sterculia foetida</i>	12.7	3
125	14-10-22	Boundary wall	Indian laburnum	<i>Cassia fistula</i>	7.62	1
126	14-10-22	Boundary wall	Kadam	<i>Neolamarckia cadamba</i>	2.54	0
127	14-10-22	Boundary wall	Indian Elm	<i>Holoptelea integrifolia</i>	12.7	3
128	14-10-22	Boundary wall	Wild Almond	<i>Sterculia foetida</i>	7.62	1
129	14-10-22	Boundary wall	Wild Almond	<i>Sterculia foetida</i>	15.24	4
130	14-10-22	Boundary wall	East Indian Rosewood	<i>Dalbergia lanceolaria</i>	12.7	3
131	14-10-22	Boundary wall	Kadam	<i>Neolamarckia cadamba</i>	15.24	4
132	14-10-22	Boundary wall	Indian Soap berry	<i>sapindus mukorossi</i>	12.7	3
133	14-10-22	Boundary wall	Kadam	<i>Neolamarckia cadamba</i>	2.54	0
134	14-10-22	Boundary wall	Arjun	<i>Terminalia arjuna</i>	15.24	4
135	14-10-22	Boundary wall	Kadam	<i>Neolamarckia cadamba</i>	15.24	4
136	14-10-22	Boundary wall	Wild Almond	<i>Sterculia foetida</i>	12.7	3
137	14-10-22	Boundary wall	Khair	<i>Senegalia catechu</i>	15.24	4
138	14-10-22	Boundary wall	Wild Almond	<i>Sterculia foetida</i>	7.62	1
139	14-10-22	Boundary wall	Kadam	<i>Neolamarckia cadamba</i>	15.26	4
140	14-10-22	Boundary wall	Umber	<i>Ficus racemosa</i>	17.78	6
141	14-10-22	Boundary wall	Arjun	<i>Terminalia arjuna</i>	10.16	2
142	14-10-22	Boundary wall	East Indian Rosewood	<i>Dalbergia lanceolaria</i>	10.16	2
143	14-10-22	Boundary wall	Kadam	<i>Neolamarckia cadamba</i>	10.16	2
144	14-10-22	Boundary wall	Indian laburnum	<i>Cassia fistula</i>	15.24	4
145	14-10-22	Boundary wall	Indian Cork Tree	<i>Millingtonia hortensis</i>	10.16	2
146	14-10-22	Boundary wall	Bakul	<i>Mimsops elengi</i>	7.62	1
147	14-10-22	Boundary wall	Wild Almond	<i>Sterculia foetida</i>	2.54	0
148	14-10-22	Boundary wall	East Indian Rosewood	<i>Dalbergia lanceolaria</i>	12.7	3
149	14-10-22	Boundary wall	Kadam	<i>Neolamarckia cadamba</i>	12.7	3
150	14-10-22	Boundary wall	Kalamb	<i>Mitragyna parvifolia</i>	17.78	6
151	14-10-22	Boundary wall	Indian	<i>sapindus mukorossi</i>	15.24	4

			Soap berry			
152	14-10-22	Boundary wall	Kadam	<i>Neolamarckia cadamba</i>	2.54	0
153	14-10-22	Boundary wall	Arjun	<i>Terminalia arjuna</i>	12.7	3
154	14-10-22	Boundary wall	Wild Almond	<i>Sterculia foetida</i>	10.16	2
155	14-10-22	Boundary wall	Kadam	<i>Neolamarckia cadamba</i>	10.16	2
156	14-10-22	Boundary wall	Kadam	<i>Neolamarckia cadamba</i>	10.16	2
157	14-10-22	Boundary wall	Kadam	<i>Neolamarckia cadamba</i>	15.24	4
158	14-10-22	Boundary wall	Kadam	<i>Neolamarckia cadamba</i>	15.24	4
159	14-10-22	Boundary wall	Kalamb	<i>Mitragyna parvifolia</i>	12.7	3
160	14-10-22	Boundary wall	Kadam	<i>Neolamarckia cadamba</i>	2.54	0
161	14-10-22	Boundary wall	Kalamb	<i>Mitragyna parvifolia</i>	12.7	3
162	14-10-22	Boundary wall	Wild Almond	<i>Sterculia foetida</i>	7.62	1
163	14-10-22	Boundary wall	Wild Almond	<i>Sterculia foetida</i>	2.54	0
164	14-10-22	Boundary wall	Indian Almond	<i>Terminalia catappa</i>	12.7	3
165	14-10-22	Boundary wall	Umber	<i>Ficus racemosa</i>	12.7	3
166	14-10-22	Boundary wall	Kalamb	<i>Mitragyna parvifolia</i>	2.54	0
167	14-10-22	Boundary wall	Kadam	<i>Neolamarckia cadamba</i>	10.16	2
168	14-10-22	Boundary wall	Kadam	<i>Neolamarckia cadamba</i>	7.62	1
169	14-10-22	Boundary wall	Wild Almond	<i>Sterculia foetida</i>	12.7	3
170	14-10-22	Boundary wall	Kadam	<i>Neolamarckia cadamba</i>	12.7	3
171	14-10-22	Boundary wall	Wild Almond	<i>Sterculia foetida</i>	12.7	3
172	14-10-22	Boundary wall	Indian Elm	<i>Holoptelea integrifolia</i>	15.24	4
173	14-10-22	Boundary wall	Arjun	<i>Terminalia arjuna</i>	1	0
174	14-10-22	Boundary wall	Kadam	<i>Neolamarckia cadamba</i>	7.62	1
175	14-10-22	Boundary wall	Umber	<i>Ficus racemosa</i>	10.16	2
176	14-10-22	Boundary wall	Wild Almond	<i>Sterculia foetida</i>	12.7	3
177	14-10-22	Boundary wall	Bakul	<i>Mimsops elengi</i>	10.16	2
178	14-10-22	Boundary wall	Kalamb	<i>Mitragyna parvifolia</i>	2.54	0
179	14-10-22	Boundary wall	Kadam	<i>Neolamarckia cadamba</i>	17.78	6
180	14-10-22	Boundary wall	Wild Almond	<i>Sterculia foetida</i>	2.54	0
181	14-10-22	Boundary wall	Kadam	<i>Neolamarckia cadamba</i>	7.62	1
182	15-10-22	Boundary wall	Shivan	<i>Gmelina arborea</i>	10.16	2
183	15-10-22	Boundary wall	Bakul	<i>Mimsops elengi</i>	2.54	0
184	15-10-22	Boundary wall	Kalamb	<i>Mitragyna parvifolia</i>	2.54	0
185	15-10-22	Boundary wall	Wild Almond	<i>Sterculia foetida</i>	10.16	2

186	15-10-22	Boundary wall	Bakul	<i>Mimsops elengi</i>	10.16	2
187	15-10-22	Boundary wall	Kadam	<i>Neolamarckia cadamba</i>	2.54	0
188	15-10-22	Boundary wall	Wild Almond	<i>Sterculia foetida</i>	2.54	0
189	15-10-22	Boundary wall	Khair	<i>Senegalia catechu</i>	10.16	2
190	15-10-22	Boundary wall	Indian laburnum	<i>Cassia fistula</i>	15.24	4
191	15-10-22	Boundary wall	Wild Almond	<i>Sterculia foetida</i>	7.62	1
192	15-10-22	Boundary wall	Indian laburnum	<i>Cassia fistula</i>	12.7	3
193	15-10-22	Boundary wall	Indian Soap berry	<i>sapindus mukorossi</i>	2.54	0
194	15-10-22	Boundary wall	Indian laburnum	<i>Cassia fistula</i>	10.16	2
195	15-10-22	Boundary wall	Indian laburnum	<i>Cassia fistula</i>	2.54	0
196	15-10-22	Boundary wall	Indian laburnum	<i>Cassia fistula</i>	2.54	0
197	15-10-22	Boundary wall	Wild Almond	<i>Sterculia foetida</i>	2.54	0
198	15-10-22	Boundary wall	Indian laburnum	<i>Cassia fistula</i>	12.7	3
199	15-10-22	Boundary wall	Wild Almond	<i>Sterculia foetida</i>	2.54	0
200	15-10-22	Boundary wall	Wild Almond	<i>Sterculia foetida</i>	10.16	2
201	15-10-22	Boundary wall	Wild Almond	<i>Sterculia foetida</i>	5.08	0
202	15-10-22	Boundary wall	Wild Almond	<i>Sterculia foetida</i>	12.7	3
203	15-10-22	Boundary wall	Wild Almond	<i>Sterculia foetida</i>	10.16	2
204	15-10-22	Boundary wall	Red silk cotton tree	<i>Bombax ceiba</i>	5.08	0
205	15-10-22	Boundary wall	Red silk cotton tree	<i>Bombax ceiba</i>	2.54	0
206	15-10-22	Boundary wall	Indian Cork Tree	<i>Millingtonia hortensis</i>	10.16	2
207	15-10-22	Boundary wall	Jamun	<i>Syzygium cumini</i>	10.16	2
208	15-10-22	Boundary wall	Pride of India	<i>Lagerstromia speciosa</i>	7.62	1
209	15-10-22	Boundary wall	Macaranga	<i>Macaranga peltata</i>	12.7	3
210	15-10-22	Boundary wall	Wild Almond	<i>Sterculia foetida</i>	10.16	2

211	15-10-22	Boundary wall	Kadam	<i>Neolamarckia cadamba</i>	10.16	2
212	15-10-22	Boundary wall	Shivan	<i>Gmelina arborea</i>	7.62	1
213	15-10-22	Boundary wall	Kadam	<i>Neolamarckia cadamba</i>	7.62	1
214	15-10-22	Boundary wall	Jamun	<i>Syzygium cumini</i>	10.16	2
215	15-10-22	Boundary wall	Jamun	<i>Syzygium cumini</i>	12.7	3
216	15-10-22	Boundary wall	Kadam	<i>Neolamarckia cadamba</i>	12.7	3
217	15-10-22	Boundary wall	Pride of India	<i>Lagerstromia speciosa</i>	7.62	1
218	15-10-22	Boundary wall	Indian cherry	<i>Cordia dichotoma</i>	12.7	3
219	15-10-22	Boundary wall	Pride of India	<i>Lagerstromia speciosa</i>	17.78	6
220	15-10-22	Boundary wall	Jamun	<i>Syzygium cumini</i>	12.7	3
221	15-10-22	Boundary wall	Indian cherry	<i>Cordia dichotoma</i>	10.16	2
222	15-10-22	Boundary wall	Jamun	<i>Syzygium cumini</i>	10.16	2
223	15-10-22	Boundary wall	East Indian Rosewood	<i>Dalbergia lanceolaria</i>	10.16	2
224	15-10-22	Boundary wall	Kadam	<i>Neolamarckia cadamba</i>	2.54	0
225	15-10-22	Boundary wall	Arjun	<i>Terminalia arjuna</i>	12.7	3
226	15-10-22	Boundary wall	Pride of India	<i>Lagerstromia speciosa</i>	7.62	1
227	15-10-22	Boundary wall	Kadam	<i>Neolamarckia cadamba</i>	7.62	1
228	15-10-22	Boundary wall	East Indian Rosewood	<i>Dalbergia lanceolaria</i>	10.16	2
229	15-10-22	Boundary wall	Kadam	<i>Neolamarckia cadamba</i>	5.08	0
230	15-10-22	Boundary wall	Kalamb	<i>Mitragyna parvifolia</i>	5.08	0
231	15-10-22	Boundary wall	Shivan	<i>Gmelina arborea</i>	2.54	0
232	16-11-22	Boundary wall	Indian laburnum	<i>Cassia fistula</i>	7.62	1
233	16-11-22	Boundary wall	Kadam	<i>Neolamarckia cadamba</i>	5.08	0
234	16-11-22	Boundary wall	Wild Almond	<i>Sterculia foetida</i>	2.54	0
235	16-11-22	Boundary wall	Kadam	<i>Neolamarckia cadamba</i>	10.16	2
236	16-11-22	Boundary wall	Apta	<i>Bauhinia racemosa</i>	7.62	1
237	16-11-22	Boundary wall	Indian laburnum	<i>Cassia fistula</i>	2.54	0
238	16-11-22	Boundary wall	Indian laburnum	<i>Cassia fistula</i>	2.54	0
239	16-11-22	Boundary wall	Wild Almond	<i>Sterculia foetida</i>	5.08	0
240	16-11-22	Boundary wall	Kadam	<i>Neolamarckia cadamba</i>	2.54	0
241	16-11-22	Boundary wall	Pride of India	<i>Lagerstromia speciosa</i>	2.54	0
242	16-11-22	Boundary wall	Kadam	<i>Neolamarckia cadamba</i>	5.08	0

243	16-11-22	Boundary wall	Wild Almond	<i>Sterculia foetida</i>	2.54	0
244	16-11-22	Boundary wall	Wild Almond	<i>Sterculia foetida</i>	2.54	0
245	16-11-22	Boundary wall	Pride of India	<i>Lagerstromia speciosa</i>	2.54	0
246	16-11-22	Boundary wall	Indian Almond	<i>Terminalia catappa</i>	10.16	2
247	16-11-22	Boundary wall	Kadam	<i>Neolamarckia cadamba</i>	2.54	0
248	16-11-22	Boundary wall	Khair	<i>Senegalia catechu</i>	5.08	0
249	16-11-22	Boundary wall	Indian Cork Tree	<i>Millingtonia hortensis</i>	10.16	2
250	16-11-22	Boundary wall	Indian laburnum	<i>Cassia fistula</i>	10.16	2
251	16-11-22	Boundary wall	Pride of India	<i>Lagerstromia speciosa</i>	10.16	2
252	16-11-22	Boundary wall	Indian Cork Tree	<i>Millingtonia hortensis</i>	10.16	2
253	16-11-22	Boundary wall	Kadam	<i>Neolamarckia cadamba</i>	5.08	0
254	16-11-22	Boundary wall	Pride of India	<i>Lagerstromia speciosa</i>	2.54	0
255	16-11-22	Boundary wall	Pala Indigo	<i>Wrightia tinctoria</i>	12.7	3
256	16-11-22	Boundary wall	Indian Almond	<i>Terminalia catappa</i>	2.54	0
257	16-11-22	Boundary wall	Indian Cork Tree	<i>Millingtonia hortensis</i>	2.54	0
258	16-11-22	Boundary wall	Pride of India	<i>Lagerstromia speciosa</i>	2.54	0
259	16-11-22	Boundary wall	Indian Almond	<i>Terminalia catappa</i>	10.16	2
260	16-11-22	Boundary wall	Scholar Tree	<i>Alstonia scholaris</i>	12.7	3
261	16-11-22	Boundary wall	Scholar Tree	<i>Alstonia scholaris</i>	15.24	4
262	16-11-22	Boundary wall	Pride of India	<i>Lagerstromia speciosa</i>	10.16	2
263	16-11-22	Boundary wall	Pride of India	<i>Lagerstromia speciosa</i>	12.07	3
264	16-11-22	Boundary wall	Wild Almond	<i>Sterculia foetida</i>	10.16	2
265	16-11-22	Boundary wall	Jamun	<i>Syzygium cumini</i>	2.54	0
266	16-11-22	Boundary wall	Indian cherry	<i>Cordia dichotoma</i>	2.54	0
267	16-11-22	Boundary wall	Indian Almond	<i>Terminalia catappa</i>	10.16	2
268	16-11-22	Boundary wall	Indian Almond	<i>Terminalia catappa</i>	15.24	4

269	16-11-22	Boundary wall	Parijat	<i>Nyctanthes arbortristis</i>	5.08	0
270	16-11-22	Boundary wall	Indian cherry	<i>Cordia dichotoma</i>	20	8
271	16-11-22	Boundary wall	Jamun	<i>Syzygium cumini</i>	10.16	2
272	16-11-22	Boundary wall	Indian Almond	<i>Terminalia catappa</i>	10.16	2
273	16-11-22	Boundary wall	Parijat	<i>Nyctanthes arbortristis</i>	10.16	2
274	16-11-22	Boundary wall	Indian cherry	<i>Cordia dichotoma</i>	2	0
275	16-11-22	Boundary wall	Pride of India	<i>Lagerstromia speciosa</i>	2	0
276	16-11-22	Boundary wall	Pride of India	<i>Lagerstromia speciosa</i>	10.16	2
277	16-11-22	Boundary wall	Pride of India	<i>Lagerstromia speciosa</i>	7.62	1
278	16-11-22	Boundary wall	Pride of India	<i>Lagerstromia speciosa</i>	15.24	4
279	16-11-22	Boundary wall	Pride of India	<i>Lagerstromia speciosa</i>	2	0
280	16-11-22	Boundary wall	Pride of India	<i>Lagerstromia speciosa</i>	10.16	2
281	16-11-22	Boundary wall	Pride of India	<i>Lagerstromia speciosa</i>	20	8
282	16-11-22	Boundary wall	Pride of India	<i>Lagerstromia speciosa</i>	5.08	0
283	16-11-22	Boundary wall	Red silk cotton tree	<i>Bombax ceiba</i>	7.62	1
284	16-11-22	Boundary wall	Indian Almond	<i>Terminalia catappa</i>	7.62	1
285	16-11-22	Boundary wall	Parijat	<i>Nyctanthes arbortristis</i>	12.07	3
286	16-11-22	Boundary wall	Indian Almond	<i>Terminalia catappa</i>	10.16	2
287	16-11-22	Boundary wall	Parijat	<i>Nyctanthes arbortristis</i>	7.62	1
288	16-11-22	Boundary wall	Indian Almond	<i>Terminalia catappa</i>	12.07	3
289	16-11-22	Boundary wall	Parijat	<i>Nyctanthes arbortristis</i>	10.16	2
290	16-11-22	Boundary wall	Kadam	<i>Neolamarckia cadamba</i>	1	0
291	16-11-22	Boundary wall	Indian cherry	<i>Cordia dichotoma</i>	7.62	1
292	16-11-22	Boundary wall	Drumstick Tree	<i>Moringa oleifera</i>	7.62	1
293	16-11-22	Boundary wall	Parijat	<i>Nyctanthes arbortristis</i>	1	0
294	16-11-22	Boundary wall	Indian Almond	<i>Terminalia catappa</i>	10.16	2
295	16-11-22	Boundary wall	Kadam	<i>Neolamarckia cadamba</i>	7.62	1
296	16-11-22	Boundary wall	East Indian	<i>Dalbergia lanceolaria</i>	12.7	3

			Rosewood			
297	16-11-22	Boundary wall	Karanj	<i>Millettia pinnata</i>	1	0
298	16-11-22	Boundary wall	Karanj	<i>Millettia pinnata</i>	10.16	2
299	16-11-22	Boundary wall	Indian laburnum	<i>Cassia fistula</i>	12.07	3
300	16-11-22	Boundary wall	Drumstick Tree	<i>Moringa oleifera</i>	15.24	4
301	16-11-22	Boundary wall	Karanj	<i>Millettia pinnata</i>	12.07	3
302	16-11-22	Boundary wall	Indian laburnum	<i>Cassia fistula</i>	10.16	2
303	16-11-22	Boundary wall	Karanj	<i>Millettia pinnata</i>	10.16	2
304	16-11-22	Boundary wall	Indian laburnum	<i>Cassia fistula</i>	10.16	2
305	16-11-22	Boundary wall	Karanj	<i>Millettia pinnata</i>	15.4	4
306	16-11-22	Boundary wall	Apta	<i>Bauhinia racemosa</i>	2	0
307	16-11-22	Boundary wall	Indian laburnum	<i>Cassia fistula</i>	15.24	4
308	16-11-22	Boundary wall	Karanj	<i>Millettia pinnata</i>	7.62	1
309	16-11-22	Boundary wall	Kanchan	<i>Bauhinia variegata</i>	12.7	3
310	16-11-22	Boundary wall	Kanchan	<i>Bauhinia variegata</i>	12.7	3
311	16-11-22	Boundary wall	Indian laburnum	<i>Cassia fistula</i>	15.24	4
312	16-11-22	Boundary wall	Karanj	<i>Millettia pinnata</i>	10.16	2
313	16-11-22	Boundary wall	Kanchan	<i>Bauhinia variegata</i>	10.16	2
314	16-11-22	Boundary wall	Karanj	<i>Millettia pinnata</i>	15.24	4
315	16-11-22	Boundary wall	Kanchan	<i>Bauhinia variegata</i>	10.16	2
316	16-11-22	Boundary wall	Karanj	<i>Millettia pinnata</i>	15.24	4
317	16-11-22	Boundary wall	Kanchan	<i>Bauhinia variegata</i>	12.7	3
318	16-11-22	Boundary wall	Indian laburnum	<i>Cassia fistula</i>	12.7	3
319	16-11-22	Boundary wall	Karanj	<i>Millettia pinnata</i>	7.62	1
320	16-11-22	Boundary wall	Indian laburnum	<i>Cassia fistula</i>	12.7	3
321	16-11-22	Boundary wall	Karanj	<i>Millettia pinnata</i>	12.7	3
322	16-11-22	Boundary wall	Karanj	<i>Millettia pinnata</i>	15.24	4
323	16-11-22	Boundary wall	Indian laburnum	<i>Cassia fistula</i>	12.7	3
324	16-11-22	Boundary wall	Karanj	<i>Millettia pinnata</i>	20	8
325	16-11-22	Boundary wall	Karanj	<i>Millettia pinnata</i>	12.7	3
326	16-11-22	Boundary wall	Karanj	<i>Millettia pinnata</i>	12.7	3
327	16-11-22	Boundary wall	Apta	<i>Bauhinia racemosa</i>	12.7	3
328	16-11-22	Boundary wall	Indian laburnum	<i>Cassia fistula</i>	15.24	4
329	16-11-22	Boundary wall	Wild Almond	<i>Sterculia foetida</i>	10.16	2

330	16-11-22	Boundary wall	Karanj	<i>Millettia pinnata</i>	12.7	3
331	16-11-22	Boundary wall	Indian laburnum	<i>Cassia fistula</i>	15.24	4
332	16-11-22	Boundary wall	Indian laburnum	<i>Cassia fistula</i>	10.16	2
333	16-11-22	Boundary wall	Karanj	<i>Millettia pinnata</i>	7.62	1
334	16-11-22	Boundary wall	East Indian Rosewood	<i>Dalbergia lanceolaria</i>	15.24	4
335	16-11-22	Boundary wall	Indian laburnum	<i>Cassia fistula</i>	10.16	2
336	16-11-22	Boundary wall	Indian laburnum	<i>Cassia fistula</i>	5.08	0
337	16-11-22	Boundary wall	Karanj	<i>Millettia pinnata</i>	2.54	0
338	16-11-22	Boundary wall	East Indian Rosewood	<i>Dalbergia lanceolaria</i>	20	8
339	16-11-22	Boundary wall	Indian laburnum	<i>Cassia fistula</i>	2.54	0
340	16-11-22	Boundary wall	Pride of India	<i>Lagerstromia speciosa</i>	15.24	4
341	16-11-22	Boundary wall	Indian laburnum	<i>Cassia fistula</i>	2.54	0
342	16-11-22	Boundary wall	Karanj	<i>Millettia pinnata</i>	10.16	2
343	16-11-22	Boundary wall	Apta	<i>Bauhinia racemosa</i>	10.16	2
344	16-11-22	Boundary wall	Indian Soap berry	<i>sapindus mukorossi</i>	15.24	4
345	16-11-22	Boundary wall	Karanj	<i>Millettia pinnata</i>	7.62	1
346	16-11-22	Boundary wall	Karanj	<i>Millettia pinnata</i>	12.07	3
347	16-11-22	Boundary wall	Indian laburnum	<i>Cassia fistula</i>	2.54	0
348	16-11-22	Boundary wall	Indian laburnum	<i>Cassia fistula</i>	10.16	2
349	16-11-22	Boundary wall	Umber	<i>Ficus racemosa</i>	7.62	1
350	16-11-22	Boundary wall	Putranjiva	<i>Putranjiva roxburghii</i>	10.16	2
351	16-11-22	Boundary wall	Indian laburnum	<i>Cassia fistula</i>	10.16	2
352	16-11-22	Boundary wall	Indian Soap berry	<i>sapindus mukorossi</i>	7.62	1
353	16-11-22	Boundary wall	Karanj	<i>Millettia pinnata</i>	5.08	0
354	16-11-22	Boundary wall	East Indian Rosewood	<i>Dalbergia lanceolaria</i>	15.24	4
355	16-11-22	Boundary wall	Red silk cotton tree	<i>Bombax ceiba</i>	12.7	3
356	16-11-22	Boundary wall	Karanj	<i>Millettia pinnata</i>	7.62	1
357	16-11-22	Boundary wall	East Indian Rosewood	<i>Dalbergia lanceolaria</i>	10.16	2

358	16-11-22	Boundary wall	Parijat	<i>Nyctanthes arbortristis</i>	10.16	2
359	16-11-22	Boundary wall	Red silk cotton tree	<i>Bombax ceiba</i>	7.62	1
360	16-11-22	Boundary wall	Parijat	<i>Nyctanthes arbortristis</i>	12.7	3
361	16-11-22	Boundary wall	Parijat	<i>Nyctanthes arbortristis</i>	12.7	3
362	16-11-22	Boundary wall	Portia tree	<i>Thespesia populnea</i>	12.7	3
363	16-11-22	Boundary wall	East Indian Rosewood	<i>Dalbergia lanceolaria</i>	2.54	0
364	16-11-22	Boundary wall	Indian cherry	<i>Cordia dichotoma</i>	7.62	1
365	16-11-22	Boundary wall	Red silk cotton tree	<i>Bombax ceiba</i>	2.54	0
366	16-11-22	Boundary wall	Drumstick Tree	<i>Moringa oleifera</i>	12.7	3
367	16-11-22	Boundary wall	Portia tree	<i>Thespesia populnea</i>	12.7	3
368	16-11-22	Boundary wall	Portia tree	<i>Thespesia populnea</i>	7.62	1
369	16-11-22	Boundary wall	Indian cherry	<i>Cordia dichotoma</i>	7.62	1
370	16-11-22	Boundary wall	Scholar Tree	<i>Alstonia scholaris</i>	2.54	0
371	16-11-22	Boundary wall	Parijat	<i>Nyctanthes arbortristis</i>	12.7	2
372	16-11-22	Boundary wall	Indian Almond	<i>Terminalia catappa</i>	15.24	4
373	16-11-22	Boundary wall	Pride of India	<i>Lagerstromia speciosa</i>	12.7	3
374	16-11-22	Boundary wall	Karanj	<i>Millettia pinnata</i>	10.16	2
375	16-11-22	Boundary wall	East Indian Rosewood	<i>Dalbergia lanceolaria</i>	12.7	3
376	16-11-22	Boundary wall	Pride of India	<i>Lagerstromia speciosa</i>	2.54	0
377	16-11-22	Boundary wall	Pala Indigo	<i>Wrightia tinctoria</i>	12.7	3
378	16-11-22	Boundary wall	Portia tree	<i>Thespesia populnea</i>	7.62	1
379	16-11-22	Boundary wall	East Indian Rosewood	<i>Dalbergia lanceolaria</i>	2.54	0
380	16-11-22	Boundary wall	Karanj	<i>Millettia pinnata</i>	10.16	2
381	16-11-22	Boundary wall	Mast tree	<i>Polyalthia longifolia</i>	7.62	1
382	16-11-22	Boundary wall	Pride of India	<i>Lagerstromia speciosa</i>	12.7	3
383	16-11-22	Boundary wall	Indian Cork Tree	<i>Millingtonia hortensis</i>	10.16	2
384	16-11-22	Boundary wall	Pride of India	<i>Lagerstromia speciosa</i>	2.54	0
385	16-11-22	Boundary wall	Portia tree	<i>Thespesia populnea</i>	10.16	2
386	16-11-22	Boundary wall	Red silk	<i>Bombax ceiba</i>	10.16	2

			cotton tree			
387	16-11-22	Boundary wall	East Indian Rosewood	<i>Dalbergia lanceolaria</i>	7.62	1
388	16-11-22	Boundary wall	Parijat	<i>Nyctanthes arbortristis</i>	5.08	0
389	16-11-22	Boundary wall	Scholar Tree	<i>Alstonia scholaris</i>	12.7	3
390	16-11-22	Boundary wall	Pride of India	<i>Lagerstromia speciosa</i>	2.54	0
391	16-11-22	Boundary wall	Portia tree	<i>Thespesia populnea</i>	15.24	4
392	16-11-22	Boundary wall	Red silk cotton tree	<i>Bombax ceiba</i>	10.16	2
393	16-11-22	Boundary wall	Drumstick Tree	<i>Moringa oleifera</i>	15.24	4
394	16-11-22	Boundary wall	East Indian Rosewood	<i>Dalbergia lanceolaria</i>	22.86	10
395	16-11-22	Boundary wall	Portia tree	<i>Thespesia populnea</i>	10.16	2
396	16-11-22	Boundary wall	Red silk cotton tree	<i>Bombax ceiba</i>	10.16	2
397	16-11-22	Boundary wall	Drumstick Tree	<i>Moringa oleifera</i>	15.24	4
398	16-11-22	Boundary wall	East Indian Rosewood	<i>Dalbergia lanceolaria</i>	10.16	2
399	16-11-22	Boundary wall	Portia tree	<i>Thespesia populnea</i>	10.16	2
400	16-11-22	Boundary wall	Jamun	<i>Syzygium cumini</i>	7.62	1
401	16-11-22	Boundary wall	Parijat	<i>Nyctanthes arbortristis</i>	7.62	1
402	16-11-22	Boundary wall	Scholar Tree	<i>Alstonia scholaris</i>	10.16	2
403	16-11-22	Boundary wall	East Indian Rosewood	<i>Dalbergia lanceolaria</i>	17.78	6
404	16-11-22	Boundary wall	Indian Soap berry	<i>sapindus mukorossi</i>	12.7	3
405	16-11-22	Boundary wall	Jamun	<i>Syzygium cumini</i>	5.08	0
406	16-11-22	Boundary wall	Indian Almond	<i>Terminalia catappa</i>	2.54	0
407	16-11-22	Boundary wall	Jamun	<i>Syzygium cumini</i>	10.16	2
408	16-11-22	Boundary wall	East Indian Rosewood	<i>Dalbergia lanceolaria</i>	5.08	0
409	16-11-22	Boundary wall	East Indian Rosewood	<i>Dalbergia lanceolaria</i>	10.16	2
410	16-11-22	Boundary wall	East Indian Rosewood	<i>Dalbergia lanceolaria</i>	10.16	2
				Total		815

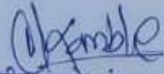
Annexure 20: FIR Copy

प्रति,
मा. पोलीस निरीक्षक
कल्याण तालुका पो. स्टे.
जि. ठाणे.

विषय: मोजे जांखिनी येथील सर्व्हे नं. २७
या मिळकतीत ठुमरलेल्या कॅबिनमध्ये
सातलेल्या चोरीची योग्य चौकशी
करून गुन्हा दाखल करण्यात...
जर्जदार: संतोष नन्हु मिसाद
स. मु. मोहन, ता. कल्याण.
मो. नं. ९६१९०३४३१७


महोदय,
उपरोक्त विषयांस अनुसरून आपणांस तह्यार
अर्ज करतो की, जांखिनी येथील स. नं. २७ या मिळकतीत
आय नैचर बॉय फाऊंडेशन या जांचकृत संस्थेने वृषारोपन
केलेले आहे. झाडांची फशागत करण्यासाठी लागणारी
प्रवजारे हेवण्यासाठी सदर जागेत कॅबिन उभी करण्यात
सातलेली आहे. परंतु दि. ०८/०५/२०२३ रोजी शस्त्रीच्या वेली
कॅबिनचे कुलुप तोडून त्यातून डीप नारिंग, ५० मिलीटर परंप,
१ फिल्टर, हॅन्ड ड्रील, २ बांडल फ्रीन कपडा, कुदल फावडा, पहाट
बादली व घमैला रव्यादी वस्तुंची चोरी सातलेली आहे.
चरीही विनंती की सदर मुद्देमाताच्या
सातलेल्या चोरीची योग्य चौकशी तपास करून
जाळेपीवट योग्य तो गुन्हा दाखल करण्यात यावा.

दाखल दि. १०/०५/२०२३



पोलीस ठाणे अंमलदार
कल्याण तालुका पोलीस स्टेशन
ठाणे ग्रामीण

10/4/23


संतोष नन्हु मिसाद
(जर्जदार)

