



Sadhubella Education Society's
Minority Institute

J. Watumull Sadhubella Girls College

Near Government Dispensary, Ulhasnagar – 421 001, Dist – Thane

GREEN AUDIT

Three expert members appointed for external green audit 1. Dr. Venugopal Chari, Head, Dept. of Botany, R. K. Talreja Arts commerce and Science college, Ulhasnagar-1, 2. Dr. Kuldeep J. Mhatre, Asst. Prof. Department of Zoology, R. K. Talreja Arts commerce and Science college, Ulhasnagar-1 and 3. Mr. Waman Sonawane, Sanitary Inspector, Ulhasnagar Mahanagarpalika corporation of inspection.

History:

The Governor-general of India, C. Rajagopalachari named the town **Ulhasnagar** (literally 'city of joy'; ulhas=joy; nagar=city) and he also laid the foundation stone for the township. It was called **Ulhasnagar** because of its close proximity to Ulhas Plateau and its valley. A suburban railway station was built in 1955. **Ulhasnagar**, which is located on coast of the West India, is in the Thane district of Maharashtra State. **Ulhasnagar** didn't actually exist during the medieval ages, when India was fighting against British for independence. ... The city was also a military camp and housed about 7,000

History of Sindhunagar/Ulhasnagar

Sindhunagar (Ulhasnagar) was build as transit military camp during 2nd world war by British Government. After the war, this place became vacant and soon after came the independence of India (15-Aug-1947). India paid a huge cost for independence. This was partition. Sindh state went on the other side of India (now Pakistan) and Sindhis who un-willingly left there homes came on the bank of Bombay (Mumbai now) with no good money in hands. Looking to the situation Indian Government decided to allot the Sindhunagar (Ulhasnagar) camp to Sindhis who came here in Mumbai during Partition.

Most of the Sindhis expected this to be a temporary arrangement and they will go back to their native land. But this hope never came true and they learned to live on this land. Sindhis started re-inventing their lost home and business here on this land. It is said the total population of Sindhunagar (Ulhasnagar) in 1951 was just 80,000.

Sindhis use to get the red wheat (one which is actually given to horses for eating), milk, fuel for cooking food on ration. Having a cup of tea use to be luxury in those days. It was made only when some guest came to house. What house, there use to be Barracks (Big halls with many doors) separated by grain sacks. No proper bathrooms and toilets.

Slowly and gradually Sindhis started learning and Bombay/Mumbai became the place of business and work for them. Luckily during those days qualified Sindhis use to get preference for employment in offices in Bombay/Mumbai. Sindhis are the hard working community and very much business minded, but making something out of nothing at all is a big achievement. Sindhis have made it possible.

This city has seen lots of phases in development. There had been gang wars for the power and dominance.

There had been duplication of goods for earning daily bread of life. This is the phase when Indian people were mad about foreign products and it use to be the trend in communities. This foreign products trend killed local manufacturers. Some of the vendors started putting "Made in USA" on products to survive in that phase. When asked what did it mean? There use to be straight answer USA stands for Ulhasnagar Sindhi Association. This city also lost the reputation because of duplication during 80s and 90s. Although now city have gained heavy strength in manufacturing and exporting quality products in its own name.

There was a Construction phase in Sindhunagar/Ulhasnagar. To earn the fast money few of the local contractors started building illegal constructions. By illegal it means As per the civic rule one can not build an apartment of more than 3 or 4 floors, but there were buildings with 6 to 7 floors spreading in the city.

Overall things have settled now and this is the place commerce starts in the country and spreads in the world. Well! Camps are still there but each camp represents its own taste. One can still find the same respect for God, what use to be there in Sindh. There are many of world famous places of worship here. People come from all over the world at these places. Swami Shanti Prakash Ashram is one such place. Jhulelal Mandir is famous for chaliha (40 day fast Sindhis observe during monsoon season).

The city has grown and its population has touched around 7 to 8 lacs. There is no growth in land and density of people has increased. Sindhunagar city consists of other communities like Maharashtrians (second largest community), Gujuratis, South Indians, Punjabis, each having their own sections and areas.

Climate: The Ulhasnagar lies on 20m above sea level The climate here is tropical. There is significant rainfall in most months of the year. The short dry season has little effect on the overall climate. This location is classified as Am by Köppen and Geiger. The average annual temperature in Ulhasnagar is 27.0 °C | 80.6 °F. Precipitation here is about 2958 mm | 116.5 inch per year.

<i>Months</i>	<i>Temperature</i>			<i>Precipitation</i>
	<i>Normal</i>	<i>Warmest</i>	<i>Coldest</i>	<i>Normal</i>
January	24.5°C	29.6°C	19.3°C	0
February	24.8°C	29.6°C	20.0°C	0
March	26.9°C	31.1°C	22.6°C	0
April	28.7°C	32.3°C	25.0°C	0
May	30.2°C	33.4°C	27.0°C	0
June	29.2°C	32.0°C	26.3°C	17
July	27.7°C	30.1°C	25.3°C	24
August	27.3°C	29.6°C	24.9°C	25
September	27.7°C	30.5°C	24.9°C	15
October	28.7°C	32.5°C	24.8°C	4
November	28.0°C	32.9°C	23.0°C	1
December	26.3°C	31.6°C	20.9°C	0
<i>Tabular view for temperature and precipitation per month</i>				

Rainfall: 2958mm. The **average annual temperature in Ulhasnagar** is 27.0 °C | 80.6 °F. **Precipitation** here is about 2958 mm | 116.5 inch per year.

Population: Ulhasnagar. Ulhasnagar is a city located in the Thane district of Maharashtra state in Konkan division, located about 55 km from Chhatrapati Shivaji Maharaj Terminus railway station. This city is part of Mumbai Metropolitan Region managed by MMRDA. It had an estimated **population** of 506,098 at the 2011 Census.

District: Thane

State: Maharashtra

J. Watumull Sadhubella Girls College is located main city 3 km away from Ulhasnagar railway station. The area of college is about 4 acres, which having very hard strata (old stone mind) and the situation is not favourable for the plant growth. In spite of adverse climatic and geographical condition, the college has developed green lush campus by tree plantation and conservation. The college is located on sandy soil that prevents growth of most of the trees. But by studying the climatic condition and type of soil, we are success full to develop the greenery on that

Sr. No.	Botanical Name	Family	Local name	Date of plantation	Height at plantation In Feet	Height of present Feet	Age
1	Albizia lebbbeck(L.) Willd.	Mimosaceae	Shirish	July 1984	02	60	35
2	Alstonia scholarisR.Br.	Apocynaceae	Saptparni	June 2016	02 feet	04	04
3	Aloe barbadensis Mill.	Liliaceae	Korphad	July 2019	01	02	07 month
4	Anona reticulata L.	Annonaceae	Sitafal	Sept. 2019	½ feet	01	07 month
5	Colocasia esculenta (L) Schott	Araceae	Pothas leaves	January 2020	01	01	02
6	Azardirachta indica A.Juss.	Meliaceae	Neem	June 2016	02 feet	04	10
7	Basella alba L.	Basallaceae	MalbarspinachMayalu	July 2019	01	06	07 month
8	Bauhania varigata	Caesalpiniaceae	Kachnar	October 2017	01	04	03
9	Calatropis procera	Asclepiadaceae	Madar	June 2016	01	04	3
10	Citrus lemon	Rutaceae	Limbu	June 2016	1.5	03	10
11	Cocos nuciferaLinn	Palmae	Naral, Naryal	June 2016	02	3.5	10
12	Dioscorea bulbifera Linn	Dioscoriaceae	Dukkarkand	June 2016 Natural	rhizome	06	10
13	Dianthus chinensis L	Caryophyllaceae	Dianthus	January 2020	15 cm.	20 cm	01 month
14	Dracaena marginata	Asparagaceae	Dracaena	January 2017	01	03	03
15	Dracaena reflexa	Asparagaceae	Dracaena	January 2017	01	02	03
16	Epipremnum aureum	Araceae	Moneyplant	September 2016	01	06	06
17	Ficus benghalensisLinn.	Moraceae	Vad	Naturally grow	01	50	25
18	Ficus racemosa Linn. Family-Common name-	Moraceae	Umbar	Naturally grow	01	20	25
19	Ficus religiosaLinn	Moraceae	Pipal	Naturally grow	01	70	24
20	Mangifera indicaLinn	Anacardiaceae	Aambaa	July 1980	1.5	60	38
21	Moringa oleiferaLamk.	Moringaceae	Drumstick, Shevga	June 2016	02	02	10

<i>Sr. No.</i>	<i>Botanical Name</i>	<i>Family</i>	<i>Local name</i>	<i>Date of plantation</i>	<i>Height at plantation In Feet</i>	<i>Height of present Feet</i>	<i>Age</i>
22	Ocimum sanctum Linn.	Lamiaceae	Tulas	September 2016	1	3	07
23	Phoenix sylvestris (L.) Roxb.	Aracaceae	Shindi	January 2017	1	2	4
24	Psidium guajava Linn.	Myrtaceae	Peru	June 2013	1	5	4
25	Quisqualis indica L	Combretaceae	Madhu malti	July 2019	01	03	07 month
26	Syzygium cumini(L.) Skeel	Myrtaceae	Jambhul	June 2013		50	07
27	Terminalia catappa L	Combretaceae	Deshibadam	June 2016	01	3	04
28	Lenonia dysantha	Arecaceae	Lady palm	January 2017	1	1.5	03
29	Dypsis lutescens	Arecaceae	Areca palm	January 2017	2	04	03
30	Roystonea regia (H.B.K.)	Arecaceae	Royal palm tree	January 2017	03	07	03
31	Latania verschaaffeltii	Aracaceae	Yellow latan palm	January 2017	03	06	03
32	Latania lontaroides	Arecaceae	Red latan palm	January 2017	03	06	03
33	Wodyetia bifurcata	Arecaceae	Fox tail palm	January 2017	05	15	03
34	Ravenala madagascariensis Sonnerat	Strelitziaceae	Traveller's palm of traveller's tree	January 2017	03	20	03
35	Polyalthia longifolia (Sonner) Thw.	Annonaceae	Ashoka	August 1980	03	70	39
36	Saraca indica Linn	Caesalpiniaceae	Sita Ashok	June 1984	02	50	36
37	Solanum tuberosum	Solanaceae	Potato, Batata				
38	Tamarindus indica Linn	Caesalpiniaceae	Chinch, Imli	June 2015	02	14	05
39	Livstonea rotundifolia	Arecaceae	Table palm Foot stool palm	January 2017	1/2	1	03
40	Yucca	Agavaceae		January 2017	02	14	03

Number of plants in campus

Sr. No.	Botanical Name	Family	Local name	No. Plants
1	Albizia lebbeck(L.) Willd.	Mimosaceae	Shirish	01
2	Alstonia scholarisR.Br.	Apocynaceae	Saptparni	01
3	Aloe barbadensis Mill.	Liliaceae	Korpad	05
4	Anona reticulata L.	Annonaceae	Sitafal	01
5	Colocasia esculenta (L) Schott	Araecae	Pothas leaves	05
6	Azardirachta indica A.Juss.	Meliaceae	Neem	03
7	Basella alba L.	Basellaceae	Malbar spinach	04
8	Bauhanian varigata L.	Caesalpiniaceae	Kachnar	01
9	Calatropis procera (Ait) R. Br.	Asclepiadaceae	Madar	02
10	Citrus medica L.	Rutaceae	Limbu	02
11	Cocos nuciferaLinn	Palmae	Naral, Naryal	
12	Dioscorea bulbifera Linn	Dioscoriaceae	Dukkarkand	01
13	Dianthus chinensis L.	Caryophyllaceae		01
14	Dracaena marginata	Asparagaceae	Dracaena	02
15	Dracaena reflexa	Asparagaceae	Dracaena	02
16	Epipremnum aureum	Araceae	Money plant	03
17	Ficus benghalensisLinn.	Moraceae	Vad	01
18	Ficus racemosa Linn.	Moraceae	Umbar	02
19	Ficus religiosaLinn	Moraceae	Pipal	03
20	Mangifera indicaLinn	Anacardiaceae	Aambaa	04
21	Moringa oleiferaLamk.	Moringaceae	Drumstick, Shevga	02
22	Ocimum sanctum Linn.	Lamiaceae	Tulas	10
23	Phoenix sylvestris (L.) Roxb.	Aracaceae	Shindi	01
24	Psidium guajava Linn.	Myrtaceae	Peru	01
25	Quisqualis indica L	Combretaceae	Madhumalti	
26	Syzygium cumini(L.) Skeel	Myrtaceae	Jambhul	02
27	Terminalia catappa L	Combretaceae	Deshibadam	02
28	Lenonia dysantha	Arecaceae	Lady palm	03
29	Dypsis lutescens	Arecaceae	Areca palm	06
30	Roystonea regia (H.B.K.)	Arecaceae	Royal palm tree	02
31	Latania verschaaffeltii	Aracaceae	Yellow latan palm	01
32	Latania lontaroides	Arecaceae	Red latan palm	01
33	Wodyetia bifurcata	Arecaceae	Fox tail palm	02
34	Ravenala madagascariensis Sonnerat	Strelitziaceae	Traveller's palm or traveller's tree	01
35	Polyalthia longifolia (Sonner) Thw.	Annonaceae	Ashoka	
36	Saraca indicaLinn	Caesalpiniaceae	Sita Ashok	01
37	Solanum tuberosum	Solanaceae	Batata, potato	02
38	Tamarindus indicaLinn	Caesalpiniaceae	Chinch, Imli	01
39	Livstona rotundifolia	Arecaceae	Table palm Foot stool palm	02
40	Yucca	Asparagaceae		02

Ornamental Plants

In addition to above we are success to developed variety of ornamentals that grown luxurantly and adds the beauty in college campus. Even they flurished and creates the clean healthy and charming atmosphere of college campus.

Ornamental are growing in college campus are listed below.



B. N.: Quisqualis indica L.

Family : Comretaceae

Common name:

Rangoon Vel, Madhumalati

Large trailing shrubs, stems often twining to the left; old stem often spinous, leaves opposite subopposite or in fast growing new shoots, alternate, elliptic oblong. Flower in terminal, corymbose spike. Petals white, turning pink to deep red pleasantly fragrant



B. N. :B. N. Rapisexelsa

Family : Arecaceae

Common name: Lady palm

This Lady is by no means as timid as her name for the Lady palm is a tough, sturdy indoor plant, immune to most of the insect attacks. Sharing a purification index of 8.5 with the Areca palm, the Lady palm is ideal for use in both dry and humid climates and can withstand a temperature up to 20 degree Celsius.

Characteristics. A native plant in warm forests of Southeast China, the lady palm is called a fan palm because it has thin, individual stalks originating from its base that end in fan-shaped leaves. Its stalks are similar to bamboo, with prominent nodes and dark rings at each node.

Uses:

An indoor air purifying plant. The appearance of Lady palm is very unique the stalk of lady palm is bamboo-like with dense broad fan-like leaves on the top. The stalk of Lady palm is used in making walking sticks and umbrella handles.



B. N. : *Dypsis lutescens*

Family : Arecaceae

Common name: Areca palm

Areca palms work during the daytime to convert carbon dioxide to oxygen. They also remove chemicals from the air. This type of palm tolerates normal household temperatures and prefers higher humidity. Indirect bright light is best, and water when the soil is dry to the touch, making

sure to water completely around the plant. Remove excess water within a few hours to reduce the risk of root rot. Four plants of shoulder height per person, per household can provide enough oxygen to survive in a sealed environment.

Uses:

The areca palm is also used as an interior landscaping species. It is often used in large indoor areas such as malls and hotels. It will not fruit or reach full size if grown in this way. Indoors, it is a slow growing, low **water**, high light plant that is sensitive to spider mites and occasionally mealybugs.



B. N. Roystonea regia (H.B.K.)

Family : Aracaceae

Common name: Royal palm tree

The fast-growing **royal palm** features a long, smooth trunk that tapers as it reaches upward. Mature **palm** attains heights of about 50 to 100 feet, with canopies that spread up to 25 feet. These **trees** sport 8-inch long leaflets on 10-foot lengths of glossy pinnate leaves.

Uses:

Royal palm trees are popular in many warm, coastal landscapes, particularly in southern ... Planting in soils with a pH of 7.5 or less promotes the best growth. Royal palm trees are popular in many warm, coastal landscapes, particularly in ... stalks in summer, followed by purple to black, half-inch fruits that aren't edible.



B. N. :Latania lontaroides

Family : Arecaceae

Common name: Red latan palm

Like the Bismarck **Palm**, the **Red Latan Palm** has stiff blue to blue-silver cost palmate fan shaped leaves, giving them a unique appearance. Young leaves of the **Red Latan Palm** have distinguishing reddish colour to the stems. The **red palm latan** can reach 12 m height but grows quite slowly.

The mature trunk is gray, smooth and slightly swollen at the base. It measures up to 25 cm in diameter and exhibits rings which are the scars of fallen leaves. The leaves are fan haped, **red** with **red** petiole the first years, later green. **RedLatan Palm** Latania lontaroides. The endangered and rare Red Latan Palm (Latania lontaroides) slowly grows up to 40 feet and up to 16 feet in diameter.



B. N. : Latania verschaffeltii

Family : Arecaceae

Common name: Yellow latan palm

Latania verschaffeltii(**Yellow Latan Palm**) is Small to medium-sized **palm** with **yellow**-margined, light green leaf-blades, to 1.2m across, deeply divided into many slender lobes. Bears greenish white to cream flowers, usually in summer; male panicles are up to 3m long, females to 1.7m long.

Size: Slowly up to 40 feet (12 m) to 16 feet in diameter (5 m). Leaf: Palmate, 8 to 24 Petiole and veins yellow.

Uses:

Cultivated for ornamental plant in garden.



**B. N. : Ravenala
madagascariensis**

Family : Strelitziaceae

**Common name: Traveller's
palm or traveller's tree**

Traveler's **tree**, (species *Ravenala madagascariensis*), plant of the family Strelitziaceae, so named because the water it accumulates in its leaf bases has been used in emergencies for drinking. The leaves are 4 to 5m long, and each

leaf base, shaped like a huge cup, holds about 1 litre (about a quart) of rainwater.

Uses:

It is widely planted as an ornamental **tree** throughout the tropics. The **traveller's** palm is very commonly planted for ornamental purposes.

It provides a roof over the **traveller's** head when it rains – even today many huts in Madagascar are covered with *Ravenala* leaves and built from the stems of the plant.



B. N. Caryota urens

Family: Arecaceae

Common name: Fish tail palm

Fishtail palm is a fast-growing feather **palm** that makes a beautiful addition to the landscape. It has a gray trunk (grows to about 30') that is covered by regularly spaced leaf scar rings. Toddy **palm** has a leaf shape that resembles the lower fin of a fish.

Caryota urens is a species of flowering plant in the palm family from the Indian Subcontinent and Southeast Asia where they grow in fields and rainforest clearings. The epithet *urens* is Latin for "stinging" alluding to the chemicals in the fruit. They are commonly called solitary **fishtail palm**, toddy palm, wine palm.

Uses of fish tail palm:

Fishtail palms have other uses, too. Leaf sheath fibers make good thatch and rope, and in some places, people cut the trunks of certain species for construction. The spongy pith of stems yields a food starch called sago, which is similar to tapioca.



B. N. :Wodyetia bifurcata

Family : Arecaceae

Common name: Fox tail palm

Easy maintenance is associated with the foxtail palm tree, as it is a self-cleaning specimen; meaning that spent leaves will die and drop from the tree as needed to facilitate new growth. While the foxtail palm tree is somewhat drought resistant, regular watering

encourages optimum growth and a lush, exotic appearance. This is a thin trunked, crown shafted, medium height pinnate palm that is very attractive in appearance. Anticipate a mature height above twenty feet but almost always below thirty feet. It got this name because of the very fluffy leaves of this species. They resemble the tail or a fox. In our area a mature height under twenty-five feet could be expected. They can get taller in the tropics. It likes heat and full sun. Read below to learn about this rather recent introduction to plant nurseries around the world.

Uses:

The Foxtail palm tree is the most used landscape palm tree in the world.



B. N.: Livostonia rotundifolia

Family: Arecaceae

Common name Table palm, round leaf palm, footstool palm

Table Palm. Also known as Chinese Fan, this perennial indoor-outdoor plant has a slow growth. Has fan shaped leaves and hook shaped thorns, good for slightly more open spaces.

It has bold rounded evergreen leaves, medium-sized, single-trunked fan-palm. Young palm has relatively shallow-lobed leaves. Older palm has more deeply divided leaves with long lance-shaped segments that radiate like the spokes of an umbrella.

Typical uses of table palm: Special features: Attractive leaf shape

Ornamental use:

This plant is used as the ornamental purpose.



Phoenix sylvestris (L.) Roxb.

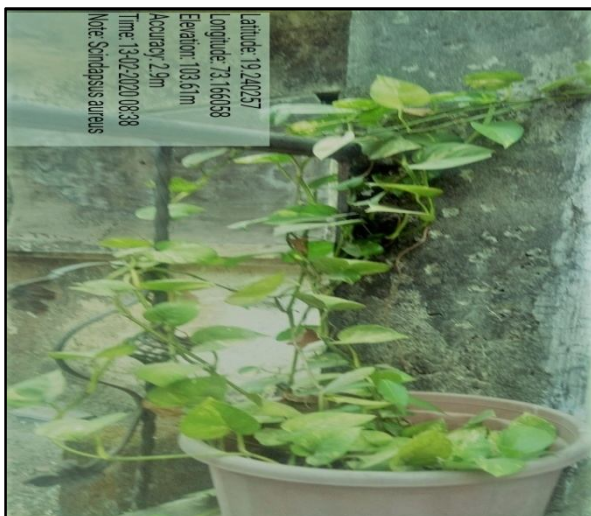
Family – Araceae

Common name- Tad (Shindi)

Tall tree, trunk clothed with persistent bases of petioles. Leaves crowned at the top of the trunks, pinnatisect, Flower numerous, angular, oblique. Outer Perianth segments united into a cup with 3, rounded teeth; inner ones 3-4 times longer than the outer, concave.

Filament short. Female flowers rather distinct, roundish, in nodding. Fruit oblong, orange yellow. Seeds oblong, single, pale brown.

BEST OXYGEN PRODUCING PLANTS IN COLLEGE



**B. N. *Epipremnum aureum* syn.
*Scindapsus aureus***

Family:

Common name: Money plant

Money plant is a delicate houseplant that is often sold with a braided stem and hand-shaped leaves. Rumored to be good luck, new evidence supporting the plant's efficacy at removing harmful chemicals from the air might lend credence to that

popular belief of the plants utilized in Kamal Meattle's study, money plant showed the most promise in removing formaldehyde and other volatile organic compounds (VOCs) from the air.



Botanical Name : *Ocimum sanctum*

Family : Lamiaceae

Common name: Tulsi

Tulsi gives out oxygen for 20 hours and ozone for four hours a day along with the formation of nascent oxygen which absorbs harmful gases like carbon monoxide, carbon dioxide and sulphur dioxide from the environment," said Shyamkant Padoley, an eminent botanist.

B.N.: *Sansevieria trifasciata*

The snake plant, also known as the mother-in-law's tongue, has very good oxygen-producing capabilities. The vertically growing plant generally doesn't extend outside of the perimeter of the container. Humidity levels inside the home are not an issue, and the plant does well in any light. Water when the top 1/3 of the soil is dry and do bi-monthly feedings. This plant converts carbon dioxide into oxygen during the night time hours. Having several snake plants in the bedroom can help provide better sleep. The plants also clean the air by removing chemicals such as formaldehyde.

: Botanical Name :
Areca spp



Areca palms work during the daytime to convert carbon dioxide to oxygen. They also remove chemicals from the air. This type of palm tolerates normal household temperatures and prefers higher humidity. Indirect bright light is best, and water when the soil is dry to the touch, making sure to water completely around the plant. Remove excess water within a few hours to reduce the risk of root rot.

Four plants of shoulder height per person, per household can provide enough oxygen to survive in a sealed environment.

: Botanical Name :
Rhapis excels



This Lady is by no means as timid as her name for the Lady palm is a tough, sturdy indoor plant, immune to most of the insect attacks. Sharing a purification index of 8.5 with the Areca palm, the Lady palm is ideal for use in both dry and humid climates and can withstand a temperature up to 20 degree Celsius. Exquisite in beauty, elegant and graceful, the Lady Palm was a symbol of nobility in ancient China.

The Lady Palm is available in dwarf varieties as Koban, Daruma and Tenzan and mini-dwarf varieties called Kodaruma and Gyokuho.

Botanical Name: *Ficus religiosa*
Family: *Moraceae*
Common name: *Pipal*



The Pipal tree also known as Bo or Bodhi tree is considered sacred in India. The founder of Buddhism Siddhartha Gautama sat underneath a papal when he was enlightened. Papal also plays a big role in Hindu weddings and is widely depicted in the ancient art and architecture of India. The leaves of pipal tree are known to emit a lot of oxygen into the environment. The amazing thing is that unlike other plants and trees, that emit oxygen through photosynthesis during daylight, the pipal continues to give oxygen even in the night.

: Botanical Name: *Azadirachta Indica*
Family: *Meliaceae*
Common Name : *Neem*



Neem (*Azadirachta Indica*) the legendary medicinal tree of India is gaining repute as the most useful tree in the world.

The Vedas called Neem 'sarvaroganivarini', which means 'one that cures all ailments and ills'. So much so that merely sleeping under the shade of a neem tree is therapeutic. Just the breeze from the neem tree is said to keep homes free from bacteria. Neem has been used as a health and beauty aid in India for over 5000 years.

Unlike most modern day chemical products, neem products are completely safe and cause no harm or side-effects. Neem trees act as highly efficient air filters that trap dust particles and absorb gaseous pollutants. They help reduce greenhouse gases by absorbing large quantities of carbon dioxide and producing oxygen. Neem trees give more oxygen than other trees.

FRUITS PLANTS IN COLLEGE CAMPUS

B. N. :*Terminalia catappa* L

Family- Combretaceae

Common name- Deshibadam



Deciduous trees, branches in horizontal whorls; young parts dense silky pubescent. Leaves chartaceous or papyraceous, crowded at the ends of branches. rounded or shortly acuminate at apex, glabrous above, pubescent especially on the nerves beneath; Flowers sessile in axillary

B. N. :*Caricapapya* Linn.

Family- Caricaceae

Common name- Papai



Perennial dioecious tree upto 6 m tall. Leaves 7-9 lobed, glabrous; petiole long, fistular, swollen at base, Male flower white, in long drooping lax panicles from the axils of upper leaves; corolla white; stamen 10 in two series. Female flower yellow, subsessile, solitary or in few-flowered corymbs in leaf axils.

B. N. : Cocos nucifera Linn

Family-Palmae

Common name- Naral, Narial



Monoecious trees, trunk thickened at base with a mass of rootlets. Leaves forming crown at apex of the trunk, pinnatisect, segment linear; petiole stout, sheathing at base. Spadices stout, panicked; spathes 60-90 cm long, hard, splitting lengthwise. Male flower unsymmetrical; outer perianth segments small. Fruits fibrous drupe.

B. N. : Mangifera indica Linn

Family-Anacardiaceae

Common name-Aambaa

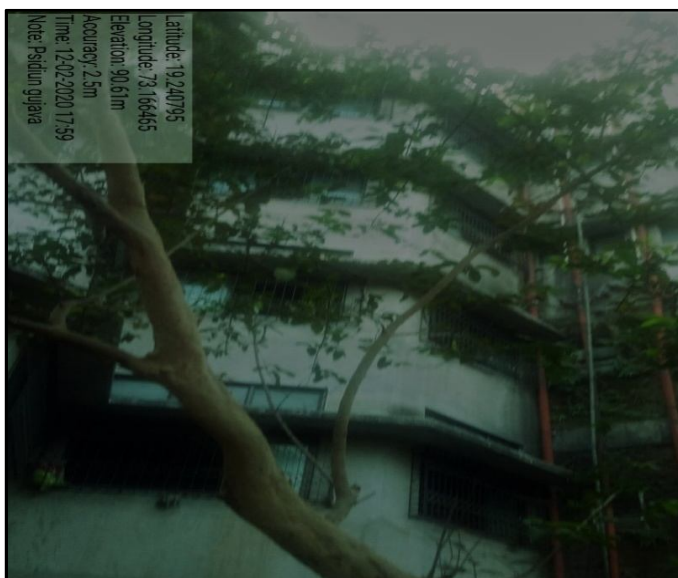


Tall evergreen trees with dense crown of spreading branches, leaves simple oblong lanceolate, flower in large terminal panicles, calyx deeply lobed, sepals ovate, petals dull white deflexed, with 3 strong orange coloured ridges on the inner face. Disk fleshy 5 lobed ovary glabrous fruit drupes often obliquely pyriform.

B. N. : *Psidium guajava* Linn.

Family- Myrtaceae

Common name- Peru



Small glabrous tree. Leaves opposite, elliptic-oblong, cordate at base, obtuse. Softly pubescent beneath especially when young. Flower solitary, axillary clusters. Petals four, white. Stamen exerted

B. N. : *Syzygium cumini*(L.) Skeel

Family-Moraceae

Common name- Jambhul



Trees reaching 20m in height; bark ash white, glabrous. Leaves opposite, Flowers in paniculata cymes arising from old leaf scars. Calyx cup shaped limb, truncate or obscurely 4-toothed. Petals white, calyptrate. Stamen exerted. Fruits dark violet, globose or ellipsoid, smooth, variable in size, crowned with truncate calyx limb. Seed solitary, globose or oblong, grayish brown.

B. N. Citrus medica Linn.

Family-Rutaceae

Common name-Kaaghzilimbu.



Perennial shrubs young shoot with spine. Leaf compound unifoliolate, gland dotted. Flower axillary, white, scented. Calyx 5. Corolla 5 scented with gland dotted. Stamen many polyadelphous. Disc is present below ovary. Fruit hesperidium.

Terminalia chebula Retz.

Family-Combretaceae

Common name-Hirda, Harda



A large trees ; branches many, spreading. Leaves mostly sub opposite, ovate-oblong ovate or cordate at base, sometimes silvery hairs. Flower dull white or yellow, with strong offensive smell, hermaphrodite, in terminal, often paniced spikes; bracteoles exceeding the flowers, calyx campanulate, glabrous outside, hairy within, lobes short obscure. Fruit drupes obovoid or ellipsoidal, brown, glabrous, more or less 5- ribbed when dry.

***B. N. Phyllanthus emblica* Linn.**

Family-Euphorbiaceae

Common name- Awla.



Middle-sized, deciduous trees. Leaves distichous, subsessile, linear oblong. Flower in axillary fascicles on leaf bearing branchlets; bracts fimbriate. Male flower numerous, on short, slender pedicels. Perianth segments 6. Female flowers few, subsessile; segments as in the males. Disk copular. Ovary trilocular.

***B. N. : Moringa oleifera* Lamk.**

Family-Moringaceae

Common name- Shevga



Middle sized trees with corky bark. Leaves 3-4 pinnate. Flower large, lax terminal puberulous panicles. Calyx cup-shaped, 5 lobed, segments, unequal petaloid. Petal white, unequal, spathulate. Perfect stamen 5, alternating with 5-7 staminodes. Ovary oblong; style cylindric. Pods linear, up to 50 cm long obtusely triangular, 9 ribbed. Seeds 3 angled and winged on angles.

ANOTHER PLANTS

B. N. : *Hibiscus rosa-sinesis* Linn.

Family: Malvaceae

Common name: Jaswand



Evergreen nearly glabrous shrub. Leaves ovate, irregularly serrate dentate, shining green above; stipule lanceolate-subulate. Flower red coloured, solitary, axillary, bracteoles 5-7, linear lanceolate. Calyx tubular; lobes lanceolate; petals red. Staminal tube exerted far beyond the petals.

B. N. Bauhania variegata L.

Family: Caesalpiaceae

Common: Kanchan, Kachnar



Middle sized tree, branched glabrous. Leaves broadly ovate, cordate at base divided for 1/3 way down into two rounded lobes, glabrous above, pubescent especially on the nerve beneath. Flower in axillary short, few-flowered, corymbose racemes; . Corolla pink-purple. Petals oblanceolate, the upper variegated with white and broader than the rest.

B. N. : *Jasminum sambac*(Linn.) Ait.

Family-Oleaceae

Common name-Bat-mogra



A sub erect shrub, scarcely climbing; young branches pubescent. Leaves opposite , broadly ovate or elliptic. Flower white, very fragrant, solitary or 3-flowered , calyx hairy , teeth 5-9, linear subulate. Corolla tube half inch long; lobes as long as the tube, narrowly oblong, acute or obtuse. Carpel 1-2, subglobose.

B. N. *Dianthus chinensis* L.

Family: Caryophyllaceae



Erect glaucous herb branched near the top, glabrous or closely pubescent. Leaves narrow lanceolate or oblanceolate. Flower often pink or variously coloured long clawed and with spreading, fimbriate limb.

B. N. : *Gymnema sylvestris* (Retz.) R. Br. ex Schult.

Family- Asclepiadaceae

Common name- Aphumari, Gudmar



Much branched, twining shrub; bark brown. Leaves opposite, ovate or elliptic-lanceolate. Flower minute, in lateral, subsessile cymes. Calyx copular, pubescent outside, glandular within; teeth ovate. Corolla campanulate, greenish yellow. Corona 5, fleshy, alternating with corolla lobes, inserted on the throat of the tube. Fruit follicles linear-lanceolate, tapering, glabrous

B. N. *Basella alba*. L.

Family: Basellaceae

Common name: Malbar spinach, Mayalu



Perennial herbs; stem long slender, twining, succulent, glabrous. Leaves alternate, broadly ovate, cordate at base and narrowed into a petiole, entire acute acuminate thick. Flower sessile, in lax pedunculate, long spikes.

B. N. :*Polyalthia longifolia* (Sonner) Thw.

Family : Annonaceae ,

Common name: Ashoka



Middle sized tree with spreading and pendulous branches. Leaves lanceolates shining green above, paler beneath, margin wavy. Flowers yellowish green, in axillary fascicles or shortly peduncled umbels.

B. N. *Coculus villosus*(L) Diels

Family: Minispermaceae

Common name: Vasanvel



Perennial twinner, stem and branches hirsute (young parts densely grey hairy). Leaves, hastate, ovate or oblong-ovate, softly pubescent or villous on both surfaces, obtuse and mucronate at apex, truncate or subcordate at base. Flower dull green; male in short axillary racemes. Calyx lobes 6 arranged in two whorls (3+3), free. Corolla lobes 6, free oblong ovate. Female flowers in axillary fascicles or racemes; calyx and corolla as in males. Fruit Drupes laterally compressed, globose.

B. N. Tamarindus indica L.

Family: Caesapiniaceae

Common name: Chinch



Large evergreen tree; bark dark grey. Leaflets 10-20 pairs. Flowers in few flowered lax racemes at the ends of the branchlets, rachis and slender pedicels minutely pubescent. Calyx minutely pubescent outside; tube short. Petals yellow, obovate striped with red. Stamens 3, monadelphous. Pods oblong, turgid. Seeds 1-10, ovate-quadrant, dark brown polished.

B. N. Solanum tuberosum L.

Family: Solanaceae

Common name: Batata



Low sub erect herbs with underground tubers; stem ribbed-tinged, pubescent. Leaves irregularly pinnate-lobed. Lobe ovates-orbicular; each pair of large lobes alternating with smaller lobes, subcordate at the base, pubescent. Flower in many - flowered lateral and terminal corymbose cymes corolla white.



**Green Audit committee visit to college
on dated 15/02/2020**



**Green Audit committee visit to college
on dated 15/02/2020**



Green Audit committee discuss with Dr. Vasant Mali about plantation on dated 15/02/2020



Green Audit committee chairman and members discuss with Dr. Vasant Mali about plantation on dated 15/02/2020



***Green Audit committee chairman and members
 visit to Botanical garden with Dr. Vasant Mali
 on dated 15/02/2020***



***Green Audit committee chairman and members
 observed compost pit with Dr. Vasant Mali about
 plantation on dated 15/02/2020***

Fauna in
J. Watumull Sadhubella Girls College Campus
Ulhasnagar-421 001

Mammals: Indian palm squirrel

Birds:

1. Coppersmith barbet
2. Common pigeon
3. Rose-ringed parakeet
4. Alexandrine parakeet
5. Common myna
6. Jungle myna
7. Oriental-magpie Robin
8. Spotted fantail
9. House crow
10. Indian jungle crow
11. Red-vented bulbul
12. Common tailorbird
13. Purple-rumped sunbird
14. Dusky-craig Martin
15. Black kite
16. House sparrow

Reptiles:

1. Oriental garden lizard

Butterflies:

1. Common tiger
2. Striped tiger
3. Common psyche
4. Common cerulean
5. Common sailor
6. Common grass yellow
7. Tailed jay
8. Red pierrot

Bees and wasp:

1. Potted wasp
2. Paper wasp
3. Carpenter bee

Flies:

1. House fly
2. Flesh fly
3. Green bottlefly

Antlion

Jumping spiders

Bagworm moth

Total no. of taxa- 35





Oriental Magpie Robin

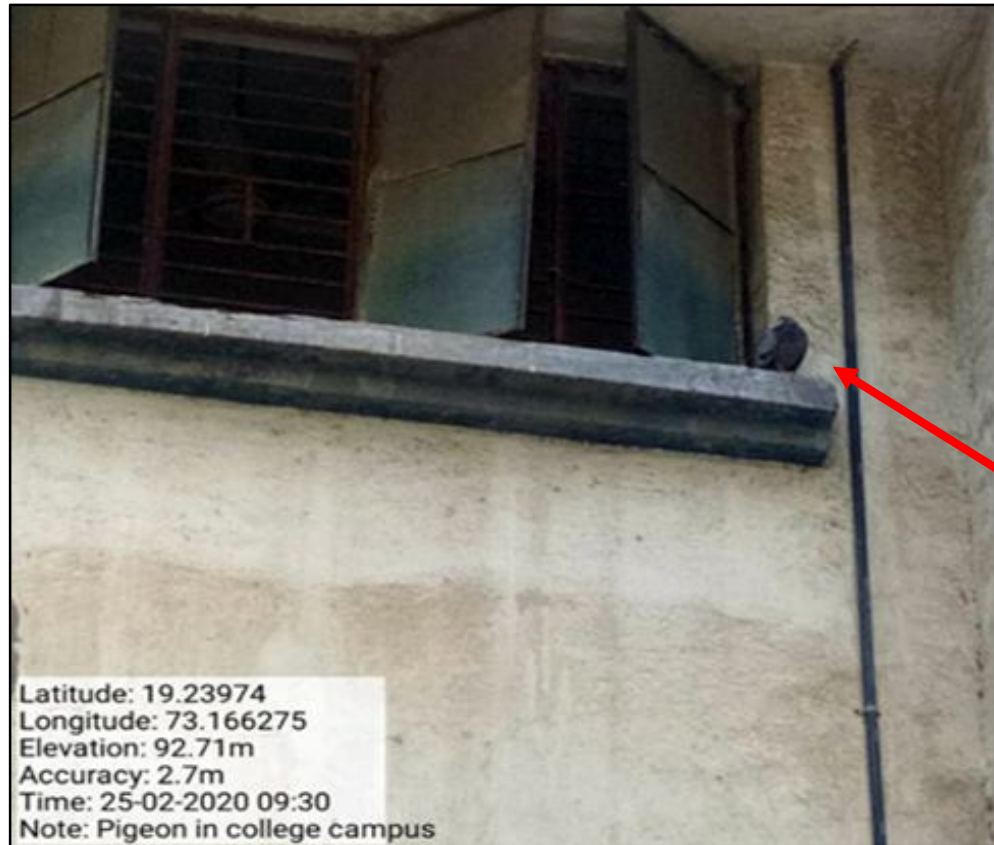


Jungle Maina



Southern Coucal







Report of Green Audit J. Watumull Sadhubella Girls college Ulhasnagar

A) Observations:

Campus is located in the vicinity of many trees (Species) to maintain the biodiversity. Various trees plantation programs are being organised at college campus and surrounding villages through (National Service Scheme) unit. The programme helps in encouraging eco-friendly environment which provides pure oxygen within the institute and awareness among villagers. The plantation programme includes various type of indigenous species of ornamental and medicinal wild plant species. College established nature club and the students are aware of such club, its importance in the college and society. The college undertakes plantation programme every years. The college campus has enough trees and plants inside and outside the college campus to combat the amount of carbon dioxide released. The college has potted plants at some prominent places in side the college building except corridor. All plants existing inside the campus are regularly watered. Making composite fertilizer from the organic waste inside the campus.

B) Recommendations:

- 1) Review periodically the list of trees planted in the campus and garden, allot numbers to the trees and keep records.
- 2) Indoor plantation to inculcate interest in students, Bonsai can plant in corridor to bond a relation with nature.
- 3) Feeding and some more host plants to be attract more butterflies.
- 4) Bird feeders to be kept in campus.

C) Conclusions:

Considering the fact, the institute is predominantly a Commerce college is significant environmental research both by faculty and students. The environmental awareness initiatives are substantial. Various types of Palm tree plants are cultivated fox tail palm, fish tail palm, red laten palm, yellow laten palm, royal palm, tables palm and areca palm and travellers' tree etc. In college campus animal biodiversity is also in good numbers and it very nice about biodiversity point of view. Few recommendations are added to curb the menace of waste management using eco-friendly and scientific techniques. This may lead to the prosperous future in context of green campus and thus sustainable environment and community development.

As a part of green audit of campus, we carried out the environmental monitoring of campus including illumination and ventilation is adequate considering natural light.

Venue: Ulhasnagar-1

Date: 15/02/2020



Dr. Venugopal Chari

(Chairman of Committee)

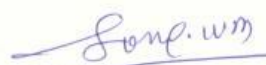
HEAD
Department of Botany
RKT. College, Ulhasnagar,
Pin. : 421 003,



Prof. Kuldeep Mhatre

(Member)





Mr. Waman Sonawane

(Member)

आरोग्य निरीक्षक
उल्हासनगर महानगर पालिका
उल्हासनगर,


PRINCIPAL

Sadhubella Education Society's
J. Watumull Sadhubella Girls College
Ulhasnagar-421 001, Dist. Thane

Report of Green Audit

J. Watumull Sadhubella Girls college Ulhasnagar

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