



7.2.1 – Best Practices

Best Practice No # 01

Title of the Practice- “Green Campus”

Objectives of the Practice:

- ❖ Dissemination of environmental literacy to motivate students, teachers and supporting staff
- ❖ Transformation of the campus into pollution free and environmentally friendly zone. Conservation as well as generation energy.
- ❖ Efficient use of available water.
- ❖ Proper waste management.
- ❖ Planting and maintaining trees.

Emphasis:

1. Greenery to provide pollution free air and carbon sink.
2. A clean campus.
3. Minimise - waste and consumption of water and energy.
4. Adoption and deployment of environment - friendly activities.
5. Impact of use of digital technology and management to reduce consumption of natural/ non-renewable resources - paper, gas, water, energy etc.

The Context:

Our college campus has significant greenery covering all parts of the campus, something that is appreciated by all visitors on campus. Government of Maharashtra awarded our college One lakh rupees as a reward for making campus green.

A clean and healthy environment aids effective learning and provides a conducive learning environment. We decided to educate and make aware students on the issues such as renewable energy sources, waste management.

We decided to work in the areas of power, plant, water and cleanliness. The stakeholders work to develop an eco-friendly, sustainable campus and to disseminate the concept of eco-friendly culture.

The Practice (Themes of the Programme)

Greening the campus is all about turning around wasteful inefficiencies and using conventional sources of energies for its daily energy needs, correct disposal handling, procurement of environment friendly supplies and effective recycling program. Institute has to work out the time bound strategies to implement green campus initiatives. These strategies need to be incorporated into the institutional planning and budgeting processes with the aim of developing a clean and green campus.

1. **Litter and Waste:** Assesses the impact of litter and waste on the environment and explores practical means for preventing, reducing and minimising the amount of litter and waste produced by the campus. This theme is compulsory when a campus is first starting out on the Green-Campus

programme and, like all initial themes, should be carried on as a maintenance theme once the campus is awarded.

2. **Energy:** Implements means by which the campus community can work together to increase awareness of energy issues and to improve energy conservation and efficiency.
3. **Water Conservation and Protection:** Focuses on the importance of water both locally and globally and raises awareness of water conservation and source protection.
4. **Transport and Travel:** Suggests ways for students, staff, and local government to work together to raise awareness of transport issues and implement practical solutions to make a real difference to commuter management on campus.
5. **Biodiversity:** Examines the diversity of plant and animal life associated with the campus and finds ways to enhance and protect biodiversity.
6. The Botany department of the college maintains a large variety of medicinal plants and wide variety of plant species. Planting of tree saplings by chief guests during their visits to the college for various functions.
7. **Green Information and Communications Technology (ICT):** An emergent theme, Green ICT examines the environmental impact of ICT at third level and explores ways in which ICT personnel and Green-Campus Committees can cooperate to reduce this impact.

Evidences of Success:

Total Green cover of the College Campus- Total Area of the Campus is 18200 Sq. Meter and total **Green Cover is 10250 Sq. Meter that is 56.30%** area fully covered with greenery

- The green campus developed by college helps not only to save the environment, but also adds to the beauty of the campus. College is able to save a lot of money on electricity bills due to solar system is evidenced from the past electricity bills. Ban on plastic items, vermi culture and vermi compost has made college campus clean and beautiful. Eco-campus strategies employed resulted in one of the beautiful and clean college in the vicinity. It has resulted in attracting more students
- The college generally does not generate any hazardous waste in any manner. However, the college strives to generate minimal waste and tries to reduce the use of plastics whenever possible. Printer Cartridges are generally refilled and not disposed. Wherever refilling is not possible, the cartridge is returned to the manufacturer. Paper waste is sold off to vendors who send it for recycling

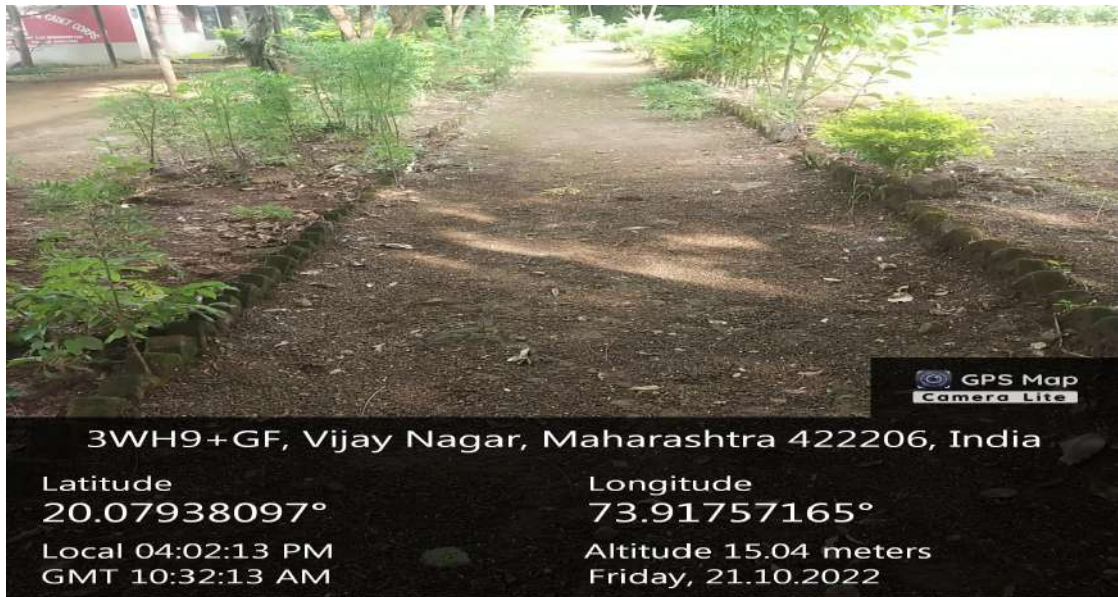
Problems Encountered and Resources Required

The financial resources are always needed to secure success in organizing these programs.

The college has challenges in terms of physical infrastructure and limitations of resources.

Green Campus

College Campus Map





GPS Map
Camera Lite

3WH8+5W8, Swami Samarth Nagar, Vijay Nagar,
Maharashtra 422206, India

Latitude
20.07906201°

Longitude
73.91704045°

Local 04:04:19 PM
GMT 10:34:19 AM

Altitude 15.04 meters
Friday, 21.10.2022



GPS Map
Camera Lite

3WH8+5W8, Swami Samarth Nagar, Vijay Nagar,
Maharashtra 422206, India

Latitude
20.07847426°
Local 01:22:21 PM
GMT 07:52:21 AM

Longitude
73.91755579°
Altitude 15.04 meters
Wednesday, 26.10.2022



GPS Map
Camera Lite

3WH9+GF, Vijay Nagar, Maharashtra 422206, India

Latitude
20.07930865°

Longitude
73.91778348°

Local 04:01:22 PM
GMT 10:31:22 AM

Altitude 15.04 meters
Friday, 21.10.2022



GPS Map
Camera Lite

Vijay Nagar Colony Rd, Ojhar, Maharashtra 422207, India

Latitude
20.07937823°

Longitude
73.91734104°

Local 09:35:46 AM
GMT 04:05:46 AM

Altitude 15.04 meters
Saturday, 22.10.2022



GPS Map
Camera Lite

3WH8+6J4, Swami Samarth Nagar, Vijay Nagar,
Maharashtra 422206, India

Latitude
20.0788285°

Local 09:30:25 AM
GMT 04:00:25 AM

Longitude
73.91643923°

Altitude 15.04 meters
Saturday, 22.10.2022



GPS Map
Camera Lite

3WH8+5W8, Swami Samarth Nagar, Vijay Nagar,
Maharashtra 422206, India

Latitude
20.07906052°

Local 04:04:35 PM
GMT 10:34:35 AM

Longitude
73.91703936°

Altitude 15.04 meters
Friday, 21.10.2022



3WH8+C6F, Swami Samarth Nagar, Vijay Nagar,
Maharashtra 422206, India

Latitude
20.07929998°

Local 04:03:28 PM
GMT 10:33:28 AM

Longitude
73.9174174°

Altitude 15.04 meters
Friday, 21.10.2022



3WH8+5W8, Swami Samarth Nagar, Vijay Nagar,
Maharashtra 422206, India

Latitude
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Local 04:04:49 PM
GMT 10:34:49 AM

Longitude
73.9170387°

Altitude 15.04 meters
Friday, 21.10.2022



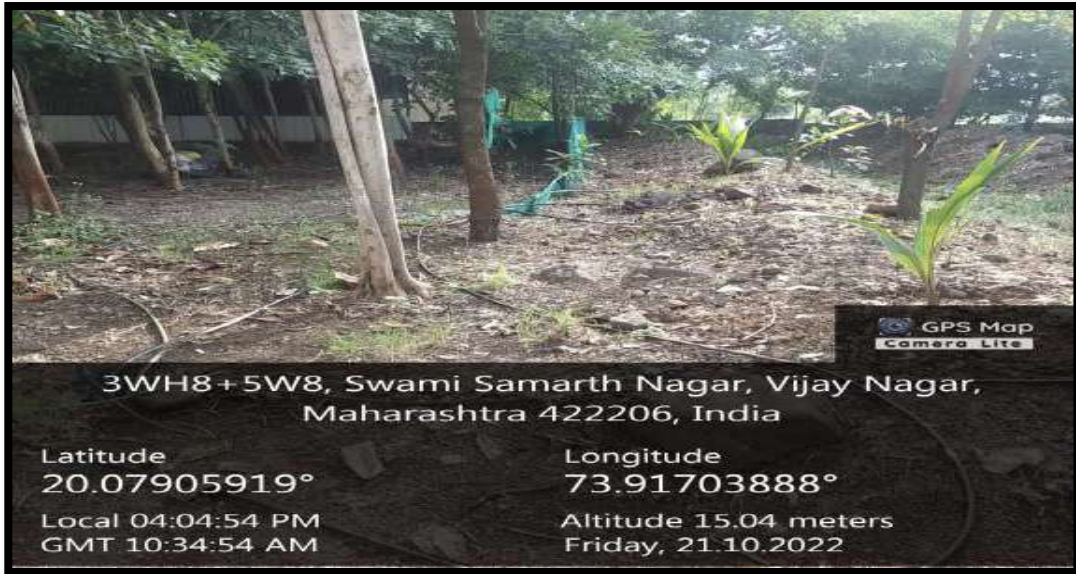
3WH9+GF, Vijay Nagar, Maharashtra 422206, India

Latitude
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Local 04:02:52 PM
GMT 10:32:52 AM

Longitude
73.9175449°

Altitude 15.04 meters
Friday, 21.10.2022



Details of Non-Decomposable waste:

Plastic waste segregation dustbins: Dust bin are placed at various places in the college campus.



Dustbin for disposal of solid



Plant conservation Program



Tree Plantation Program

Solar Energy: - Solar Panel Installed in the Institute Campus :

Photograph of hybrid energy generation device (Net Metering System-On Grid)

The hybrid energy generation devices contain a solar PV plant ON Grid system with 7.5 kVA inverter and battery backup. The hybrid energy generation device generates 60 units per day. Online UPS is used for power backup in case of power failure.





GPS Map Camera Lite

3WH8+5W8, Swami Samarth Nagar, Vijay Nagar, Maharashtra 422206, India

Latitude	Longitude
20.07856775°	73.91739811°
Local 02:36:32 PM	Altitude 546.2 meters
GMT 09:06:32 AM	Tuesday, 28.03.2023

Note: MVPs Arts Science & Commerce College Ozar Mig Niphad Nashik Maharashtra 422206



GPS Map Camera Lite

3WH8+5W8, Swami Samarth Nagar, Vijay Nagar, Maharashtra 422206, India

Latitude	Longitude
20.07849728°	73.91756428°
Local 02:38:35 PM	Altitude 543.65 meters
GMT 09:08:35 AM	Tuesday, 28.03.2023

Note: MVPs Arts Science & Commerce College Ozar Mig Niphad Nashik Maharashtra 422206



GPS Map Camera Lite

3WH8+5W8, Swami Samarth Nagar, Vijay Nagar, Maharashtra 422206, India

Latitude	Longitude
20.07856352°	73.91742404°
Local 02:38:10 PM	Altitude 545.29 meters
GMT 09:08:10 AM	Tuesday, 28.03.2023

Note: MVPs Arts Science & Commerce College Ozar Mig Niphad Nashik Maharashtra 422206



GPS Map Camera Lite

3WH8+5W8, Swami Samarth Nagar, Vijay Nagar, Maharashtra 422206, India

Latitude	Longitude
20.07859304°	73.91755237°
Local 02:35:35 PM	Altitude 546.77 meters
GMT 09:05:35 AM	Tuesday, 28.03.2023

Note: MVPs Arts Science & Commerce College Ozar Mig Niphad Nashik Maharashtra 422206



Installed Solar Charge controller

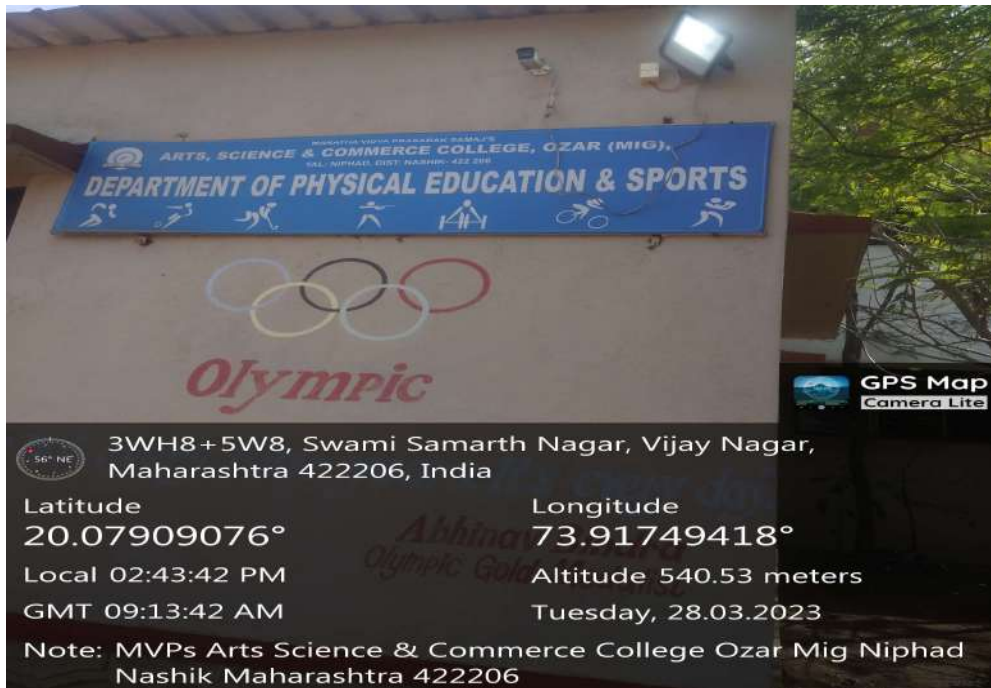


ON-Grid Meter



On-line UPS with Battery

Use of LED Bulbs/ Power Efficient Equipment :



Sample Photos of LED Bulbs Used in the Campus



Maratha Vidya Prasarak Samaj 's

ARTS, SCIENCE AND COMMERCE COLLEGE, Ozar (Mig),

Tal: Niphad , Dist: Nashik. 422 206 (Maharashtra)

Ban on use of Plastic: -



Best Practice No # 02

Title of the Practice- **The Medicinal Plants Garden in the Campus**

What is a medicinal plant?

A medicinal plant is any plant which, in one or more of its organs, contains substances that can be used for therapeutic purposes or which are precursors for the synthesis of useful drugs. This description makes it possible to distinguish between medicinal plants whose therapeutic properties and constituents have been established scientifically, and plants that are regarded as medicinal but which have not yet been subjected to a thorough scientific study.

Objective of the Practice:

- To create awareness among the students about the medicinal plants and their use in day-to-day life.
- To conserve the indigenous medicinal plants for traditional health care.
- To motivate them to develop such garden in their galleries or the terrace
- To train the stakeholders to know about the organic Agriculture

The Context:

Medicinal plants provide medicinal properties due to the presence of natural compounds. The presence of phytochemical constituents in medicinal plants plays an important role in healing and also helps in curing human diseases. Plants have been used for medicinal purposes since ancient time. Consumption of medicinal herbs is increasing day by day and in such condition the cultivation of medicinal plants would be very profitable. Treatment with medicinal plants is considered very safe as there is no or negligible side effects. Nowadays, due to the advancement in Science and technology, everyone is moving away from nature. But, we human being are a part of nature so we should contribute to the preservation of nature and promote the growth of medicinal plants. Plants are natural products and have no side effects, safe, eco-friendly and many of them are locally available.

The Practice:

During the year, a botanical garden is developed. The garden contains various medicinal plants, shrubs, creepers, vines and saplings. The plants and shrubs can be planted in a small space such as galleries and the terrace of the houses. The plants are medicinal in nature. In the garden, there are total 24 types medicinal plants and shrubs such as Ritha (Sapindumukrosi) Arjun (Terminalia Arjuna), Pandhari Nirgudi (Vitex negundo), Thorli Gunj (Adenan Therapavonina Linn) Shikekai (Acasia Concinna Dc) etc. The plants were bought Mahatma Phule Agricultural University, Rahuri, Dist. Ahemed Nagar. To create awareness, a 120-day training course in Agriculture (Organic Grower) was run by the College in collaboration with Jan Shikshan Sanstha, Nashik. The programme was run through Skill India

Evidence of Success: The students of all three programmes B. A, B.Sc and B.Com of our institution have a continues access and view of medicinal plants inside the campus. The students who pass nearby this medicinal garden, out of curiosity watch those medicinal plants and know about their uses. As the awareness grows among the students about the use of each medicinal plants for different deceases, they inculcate the habit of using them wherever and

whenever it is necessary. Not only to the science students particularly in the Botany students and even the students of Arts and commerce too have a general knowledge and awareness about the use of these simple and easily available medicinal plants in abundance everywhere. Even the teaching and non-teaching staff and the public who visit the college have a common knowledge about these plants. Even students are encouraged to carry these plants and grow them in their backyards.

Problems encountered and resources required:

There are no problems in maintaining these medicinal plant garden as there is enough place inside the college campus to grow these plants. The maintenance of this garden is not expensive.

- But creating awareness continuously about the use of these plants among the students is a bit difficult task particularly among the Arts and Commerce students but this problem is overcome by generating interests among the students about the utility of these plants
- Maintaining different species of plants, watering, weed eradication, disease control and preparation of organic manure are also challenging.

Details of each plant:

Sr. No.	Local Name	Botanical Name	Family	Number of Plants
1.	Neem	<i>Azadirachta indica</i>	Meliaceae	29
2	Gulmohar	<i>Delonix regia</i>	Caesalpiaceae	08
3	Silk cotton tree	<i>Bombax ceiba L.</i>	Malvaceae	13
4	Pimpal	<i>Ficus populifolia</i>	Moraceae	05
5	Vad	<i>Ficus benghalensis L.</i>	Moraceae	06
6	Kanchan	<i>Bauhinia variegata L</i>	Fabaceae	05
7	Vahaba	<i>Cassia fistula</i>	Fabaceae	03
8	Silver oak	<i>Grevillea robusta</i>	Proteaceae	08
9	Akash shevaga	<i>Spathodea campanulata</i>	Bignoniaceae	03
10	Balamkhira	<i>Kigelia africana</i>	Bignoniaceae	15
11	Bakul	<i>Mimusops elengi</i>	Sapotaceae	05
12	Bambu	<i>Bambusa vulgaris</i>	Poaceae	14
13	Life Plant	<i>Kalanchoe pinnata</i>	Crassulaceae	05
14	Rui	<i>Calotropis procera</i>	Apocynaceae	02
15	Saptparni	<i>Alstonia scholaris</i>	Apocynaceae	09
16	Sisam	<i>Dalbergia sissoo</i>	Fabaceae	03
17	Ashoka	<i>Monoon longifolium</i>	Annonaceae	05
18	Sitaphal	<i>Annona squamosa</i>	Annonaceae	06
19	Kashid	<i>Cassia siamea</i>	Fabaceae	10
20	Arjun	<i>Terminalia arjuna</i>	Combretaceae	01
21	Jambhul	<i>Syzygium cumini</i>	Myrtaceae	06
22	Amba	<i>Mangifera indica</i>	Moraceae	20
23	Avala	<i>Phyllanthus emblica</i>	Phyllanthaceae	04
24	Peru	<i>Phymatidium delicatulum</i> <i>var. delicatulum</i>	Myrtaceae	02
25	Subabhul	<i>Leucaena leucocephala</i>	Fabaceae	03
26	Bhui amla	<i>Phyllanthus niruri</i>	Phyllanthaceae	01
27	sweet basil	<i>Ocimum basilicum</i>	Lamiaceae	01
28	Boganvel	<i>Bougainvillea glabra</i>	Nyctaginaceae	05
29	Papadi	<i>Holoptelea integrifolia</i>	Ulmaceae	05
30	Chinch	<i>Tamarindus indica</i>	Fabaceae	02
31	Cherry	<i>Muntingia calabura</i>	Muntingiaceae	04
32	Badam	<i>Terminalia catappa</i>	Combretaceae	05
33	Sag	<i>Tectona grandis</i>	Verbinaceae	04
34	Pandhara Chafa	<i>Plumeria rubra</i>	Apocynaceae	10
35	Kadamb	<i>Neolamarckia cadamba</i>	Rubiaceae	03
36	Hirava chafa	<i>Artabotrys hexapetalus</i>	Annonaceae	01
37	Gulvel	<i>Tinospora cordifolia</i>	Menispermaceae	01
38	Denseflower Knotweed	<i>Persicaria glabra</i>	Polygonaceae	01
39	Karanj	<i>Pongamia pinnata</i>	Fabaceae	07
40	Sonmohar	<i>Samanea saman</i>	Fabaceae	03
41	Royal palm	<i>Roystonea regia</i>	Arecaceae	08
42	Nilmohar	<i>Jacquemontia cuspidata</i>	Convolvulaceae	01
45	Chandan	<i>Santalum album</i>	Santalaceae	01
46	Hemelia	<i>Hamelia patens</i>	Rubiaceae	01
47	Chrismus tree	<i>Araucaria columnaris</i>	Arucariaceae	01
48	Chitrak	<i>Plumbago zeylanica</i>	Plumbaginaceae	01
49	Jaswand	<i>Phragmanthera capitata</i>	Loranthaceae	01
50	Cycus	<i>Cycas revoluta</i>	Cycadaceae	01

51	Water lilies	<i>Nymphaea odorata</i>	Nymphaeaceae	01
52	Monkey Bush	<i>Abutilon indicum</i>	Malvaceae	01
53	jasmine	<i>Jasminum officinale</i>	Oleaceae	01
54	Bhingule	<i>Indigofera tsiangiana</i>	Fabaceae	01
55	Lajalu	<i>Mimosa pudica</i>	Fabaceae	03
56	Rakta Kanchan	<i>Bauhinia purpurea</i>	Fabaceae	25

Figure No.-6. Photographs of Some Plants



Abutilon indicum



Bryophyllum pinnata



Calatropis procera



Phyllanthus niruri



Oscimum basilicum



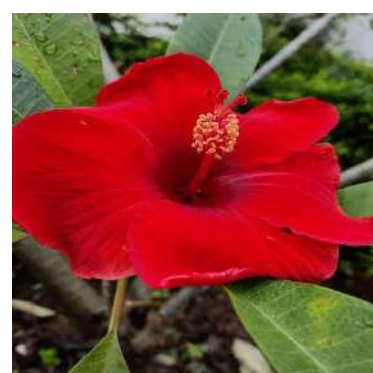
Tinospora cordifolia



Persicaria glabra



Plumbago zeylanica



Hibiscus rosasinensis



Jasminum officinale



Indigofera Linnaei



Nymphaea odorata



Mimosa pudica



Spathodia campanulata



Bauhinia purpurata