



*Maratha Vidya Prasarak Samaj's*

**Arts, Science and Commerce College, Ozar (Mig),  
Tal - Niphad, Nashik - 422206, (Maharashtra)**

*(Affiliated to Savitribai Phule Pune University Pune)*

NAAC Accredited with B+ Grade

## **Green Audit Report**



**2022-2023**

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## 1. INTRODUCTION

Green means **to continually improve upon the manner that resource are utilized**, that results in reduced impacts to human health and the environment and is done without sacrificing the current and future needs of our world. It's often used now to mean 'habitat', 'home', or 'Earth'. And so, 'eco-friendly' simply means Earth-friendly. According to the Cambridge Dictionary, being eco-friendly means being '**designed to have little or no damaging effect on the environment**' basically, it's all about doing no harm.

The term 'Environmental audit' or 'Green audit' means differently to different people. Terms like 'assessment', 'survey' and 'review' are also used to describe similar activities. Furthermore, some organizations/Institutions believe that an 'environmental audit' addresses only environmental matters, whereas others use the term to mean an audit of health, safety and environment-related matters. Although there is no universal definition of Green Audit, many leading companies/institutions follow the basic philosophy and approach summarized by the broad definition adopted by the International Chambers of Commerce (ICC) in its publication of Environmental Auditing (1989).

**The International Chambers of Commerce ICC defines Environmental auditing as:**

*"A management tool comprising a systematic, documented, periodic and objective evaluation of how well environmental organization, management and equipment are performing with the aim of safeguarding the environment and natural resources in its operations/projects."*

The outcome of Green Audit should be established with concrete evidence that the measures undertaken and facilities in the institution under green auditing.

## 2. PROFILE OF THE INSTITUTE:

### a) About MVP Trust:

Maratha Vidya Prasarak Samaj is 108 years old renowned education institute in the state of Maharashtra, established in 1914. It was one of the greatest milestones in the pre-independence history of Nashik. The well being in general and education in particular were considered the sole of human being.

The great visionaries of MVP Samaj rightly laid the "Well being & happiness of masses" as the motto for the samaj. The founders of the samaj were inspired and driven by the great work of Mahatma Jyotiba Phule and Rajarhi Shahu Chhatrapati of Kolhapur.

The pioneers, devoted and dedicated team of MVP Samaj includes the names of great social workers and educationalists as - Karmaveer Raosaheb Thorat, Bahusaheb Hiray, Annasaheb

Murkute, Ganpatdada More, Kirtiwanrao Nimbalkar, D.R. Bhosale, Vithoba Patil Jadhav. They were the men who envisioned a culture and knowledge centric society.

M.V.P. Samaj manages more than 485 educational & professional institutions. The spectrum of educational institution encompasses Primary Schools, Secondary Schools, Graduate & Post graduate Colleges, Professional & Vocational Colleges. The total strength of students in is over 213598. Under the jurisdiction of University of Pune, Maharashtra University of Health Sciences, MSBTE, M.V.P. Samaj spearheading and propagating education from primary to upper crest management and professional stream like Medicine, Physiotherapy, Nursing, Pharmacy, Engineering, Polytechnic, Architecture and Computer Science etc. The Samaj has strived to create a niche for itself in the world of education, by uplifting the standard of education in the society.

The students & professionals produced by the institutions of MVP Samaj forum the real backbone of modern society.

#### **b) About College:**

Maratha Vidya Prasarak Samaj's Arts, Science & Commerce College, Ozar (MIG), Tal-Niphad, Dist-Nashik was established in 1984. The college is affiliated to Savitribai Phule Pune University, Pune. It has been recognized under 2 (f) and 12 B of the University Grants Commission Act, 1956. It receives grants-in-aid. The College is situated in its own spacious and beautiful building on a magnificent and serene campus. It is 2 kilometers away from the Ozar (MIG) Bus Stand, 3 kms away from Ozar Air Port, 20 kms away from the Nashik City Central Bus Stand, 27 kms from the Nashik Road Railway Station. The College imparts education leading to Bachelor's Degrees in Arts, Science and Commerce and Master's Degree in Hindi, Physics and Chemistry. It has well-furnished and ventilated classrooms, well-equipped laboratories and a rich library, internet facility, adequate number of clean toilet blocks, play grounds, a health centre, well preserved trees, lawns and landscapes, experienced, qualified and devoted teaching and supporting staff.

The College does its best and most to contribute to National Development through serving the cause of social justice and ensuring equity by providing access to education to socially and economically backward students. Thanks to their education, the students' standard of living is enhanced.

The college does sincere efforts to develop life skills and core competencies among the students which are on par with their counterparts elsewhere, so that they can face the requirements and challenges in the liberalized, privatized and globalized world.

Through appropriate NSS, NCC, curricular and extra-curricular (cultural) activities, the

College imbibes appropriate value systems among the students emphasizing universal values like truth righteousness, cooperation, mutual understanding, sense of justice and equity, etc.

We are aware that we live in the era of science, technology and commerce in which traditional methods of delivering education and governance have become less effective and less motivating for the stakeholders in the College. Therefore, through the Information and Communication Technology (ICT) department, internet, intercom, telephone, services the College spreads ICT literacy among the students, teachers and supporting staff and makes them use ICT in all their activities.

We also facilitate distance education through our study centre of YCMOU (Yeshwantrao Chavan Maharashtra Open University), Nashik for the students who cannot do regular courses of the Pune University because of their own reasons. Thanks to this study centre these students' dream of becoming graduates is realized.

In short, this college does whatever it can to develop itself into a centre of excellence. In other words, we quest for excellence in all that we do in and off the college...

The College is accredited in July 2019 with CGPA2.77 and B++ grade.



**Figure 1. –College location and Photograph**

### **3. ENVIRONMENTAL CONSERVATION COMMITTEE**

<b>Sr. No.</b>	<b>Name of Member</b>	<b>Designation</b>	<b>Title in Committee</b>
1.	Dr. P.R. Bhadane	Incharge Principal	Chairman
2.	Dr. R.K. Patil	Assistant Professor	Coordinator
3.	Dr. D.S. Borade	Assistant Professor	Member
4.	Prof. V.K. Dethé	Assistant Professor	Member
5.	Dr. Y.P. Jadhav	Assistant Professor	Member

### **4. FUNCTION OF ENVIRONMENTAL CONSERVATION COMMITTEE:**

The college has constituted Environmental Conservation Committee to make the student teachers aware about the Campus and the surrounding environment.

- To aware the student and teachers about the different environmental issues
- To enhance the beautification of the campus and aware students about plants and their conservation
- To providing opportunities to acquire knowledge, skills, attitude, commitment to preserve the environment.
- To make them understand the importance of the plants on the earth and how we can conserve them to enhance the beauty of the planet earth
- To train the student, teachers to impart environmental education to school children through curricular and co-curricular activities.
- To make students aware of society about the environment conservation.
- To manage solid waste, liquid waste and e-waste of the college campus.

## **5. STEPS OF GREEN AUDIT**

### **Pre-Audit**

1. Plan the audit
2. Select the audit team
3. Schedule the audit facility
4. Acquire the background information
5. Visit the site

### **On-site**

1. Understand the scope of audit
2. Analyze the strengths and weaknesses of the internal controls
3. Conduct the audit
4. Evaluate the observations of audit program
5. Prepare a report of the observations side by side

### **Post-Audit**

1. Produce a draft report of the data collected
2. Produce a final report of the observations and the inference with accuracy
3. Distribute the final report to the management
4. Prepare an action plan to overcome the flaws
5. Keep a watch on the action plan

## **6. BACKGROUND:**

Arts, Science and Commerce College Ozar (Mig), established in 1984 is located in 2 kilometres away from the Ozar (MIG) Bus Stand and affiliated to Savitribai Phule Pune University, Pune. The Parent Institution, Maratha Vidya Prasarak Samaj Nashik, has received the best educational Institution award from the State Government. It is one of the premier educational institutions in Maharashtra. The College runs fourteen programmes at undergraduate level and 3 programmes at postgraduate level.

Admission process is transparent. The College takes care to provide access to all sections of the society. The percentage of women students is near about 50 % during the last three years. The faculty members practice modern teaching learning methods. The University frames evaluation norms and there is a mechanism for grievances regarding evaluation. The College has adapted continuous evaluation process. The College has implemented 'Teacher ward system' and 'Planning of teaching learning and evaluation' as the best practices.

The infrastructure and Institutional assets maintained by annual contracts, private agencies and appointed staff. The library is resourceful; still there is scope for further enhancement. Broadband Internet facility is available to faculty and students. The College has implemented 'Computer education for all the students' as the best practice.

The achievement of students in sports, competitive examination and percent of employment is increasing. The results of the College are consistently good as compared to other rural College and University average. Sufficient financial aid is provided to the students through scholarships and other welfare schemes like, 'Vidyarthi Kalyan Nidhi' and 'Vidyarthi Suraksha Yojna'. Insurance and counseling facilities are available for the students. Student council is constituted every year. The students are facilitated by providing funds for sports, cultural and extracurricular activities. The College has implemented 'Counseling of the students' as the best practice.

The College has established Internal Quality Assurance Cell. It is monitoring the quality aspects of the Institution. The College performs gender audit. The College has developed relationships with all the stakeholders through various activities.

**Figure 2. Campus Map:**



## Courses offered by College

- **Table-1. Course offered**

Name of Faculty	Name of Program	Name of Subject
Faculty of Arts	BA	1. History 2. Marathi 3. Psychology 4. Political Science 5. Economics 6. Hindi 7. English 8. Geography
	M.A.	Hindi
Faculty of Commerce	B.Com.	Business Administration
Faculty of Science	B.Sc.	1. Chemistry 2. Physics 3. Zoology 4. Mathematics
	M.Sc.	1. Chemistry 2. Physics
Vocational	B.Voc.	Electrical

## 1. SCOPE OF WORK

The following Environmental Issues were studied for the above-mentioned campus area.



- Water Environment including rain water harvesting potential of the campus.
- Plant diversity.
- Noise Environment.
- Solid Waste Management Practices.
- Air Environment.

Based on the available data, sampling and information provided by the Arts, Science and Commerce College, Ozar (Mig), Tal-Niphad, Dist-Nashik officials this report has been prepared and recommendations for betterment of campus environment are provided.

## 2. BASELINE DATA

The most of the baseline data relating population, water supply, has been collected from the college management. The data / samples for drinking water, noise, floral diversity, and solid waste generation were collected by visiting the campus area by the expert teams.

- **Table-2.Total Population of The Campus**

<b>Sr. No.</b>	<b>Particulars</b>	<b>Total population of institute (incl. Students, Permanent, Temporary staff &amp; visitors</b>
1.	College Staff (Teaching and Non-Teaching)	85
2.	College Students (Girls and Boys)	1212
3.	Residential Students	-
4.	Residential Staff	-
5.	Floating Population	65
	Total	1362

## 9. WATER AUDIT

1. Main water source in the campus (Well, Nagar Panchayat Water Irrigation, Bore well, etc.)
2. Number of Water storage tanks in college campus and their capacity
  - a) Syntex Buiding -8000Lit. Cement tank – 10000 Lit.
  - b) Syntex for filter storage water-1000 Lit.
  - c) Filter water-300 Lit.
  - d) Girls and Boy Toilet -5000 Lit. each

- e) Drinking water -30 Lit.
- f) Under ground water storage tank-10000 lit.
- g) Loft water storage tank-15000 lit.

**a) Water Requirement calculations:**

**Table-3. Water Requirement**

Sr. No.	Particulars	Total population	Required Water Supply (lpcd)	Water Requirement (M <sup>3</sup> /Day)
1.	College Staff (Teaching and Non-Teaching)	72	20	1.44
2.	College Students (Girls and Boys)	1282	20	25.64
3.	Residential Students	-	-	-
4.	Residential Staff	-	-	-
5.	Floating Population	65	20	1.3
Total		1419		28.38

**b. Quality of water:**

Main water source in the campus is Bore well it gives sufficient water for daily requirement of the college. Water is directly used for various domestic purposes, irrigation of plants etc. To maintain the quality of Drinking Water College uses one RO Plants with water supply coolers. The RO systems are maintained by annual maintenance contact.

**c. Rain water harvesting measures**

The college has implemented proper and systematic rain harvesting system. The rain water is collected on the roof of the building and passes through the pipeline. It is stored in the collection Tanks which is exactly behind the building. Some of the water falls into the duct and percolates itself in soil.

The average rainfall in the Ozar Village is 645 mm annually. The total roof area of the building is 2150 sqmt. Based on runoff coefficient (0.7) and a roof area of 2150 square meters a volume of 970725 liters (645 x 2150 x 0.7) of water can be collected in rainy season. The total yearly amount of water that can be collected from the roof is 971 m<sup>3</sup> in an average year. The total amount of water that can be collected from this roof 970725 liters is not enough to fulfill the total yearly water demand of 10358700 liters. However it might still be worthwhile to construct rain water harvesting system. With a storage reservoir of 472400

liters rainwater harvesting system could provide 2661 liters of water per day, which is 9% of the total water demand.

#### **Management of Generated Wastewater:**

Based on the water consumption data and considering about 80% of the water supplied is converted in to the waste water either through the washrooms, chemical laboratories, etc. the campus generated about 23 m<sup>3</sup> waste water every day.

It was observed that there is separate drainage system for collecting and transporting sewage and liquids from laboratories. Currently, a combined drainage systems is placed which carries all the liquid effluent to a sewerage system. There is necessity of collection of grey and black water. The grey water with minor treatment must be used for irrigation of vegetation and black water must be treated properly using simple septic system and soak pits.

## **10.WASTE QUANTIFICATION AND MANAGEMENT**

### **a. Details Decomposable waste :**

Source of waste generation:

Solid waste in the campus is two types such as paper or stationary waste and plant waste.

Collection system if available:

All the paper waste in the college is collected half yearly and sold it to the scrap agency Mauli Trading Company, Malegaon. The plant wastes from the campus are collected and dump into the waste pit.

### **b. Composting/vermin composting technique used :**

All these waste is mixed with the organic manure and used as fertilizers for the plants in the campus. Some of the plant wastes are added in to the vermi-compost pit for preparing bio-fertilizer. The solid waste from the canteen is disposed properly.



**Figure 3.-Vermicompost Unit**

**c. Details of Non Decomposable waste :**

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



**Figure -4. Dustbin for disposal of solid**

**d. E-waste quantification and management :**

E- Waste such as computers, printers, mouse, and keyboards are collected from corresponding departments and stored in the scrap room and then handed over time to time to the M.V.P Samaj's Karmaveer Baburao Thakare College of Engineering Nashik. Only non repairable parts of e- waste are put into the scrap while repairable parts are used after repairing. 20 non repairable parts of e- waste are put into the scrap while repairable parts are used after repairing.



**Figure 5. E-Waste scrap room**

## 11. NOISE AUDIT

1. Any noise control equipment adopted in campus:

**Table 4.-Noise calculations**

Sr. NO.	Location	Min Noise Level dB (A)	Max Noise Level dB (A)	Noise Standards dB (A)*
1.	Main Building	48	65	50
2.	College Canteen	43	64	50
3.	Seminar Hall	45	57	50
4.	Lecture Hall Building	50	58	50
5.	Principal Quarters	-	-	50
6.	Staff Quarters	-	-	50
7.	Other	44	71	

## 12.LAND MANAGEMENT AND TREE PLANTATION

Tree plantation is significant because it is linked to our basic need for good food to eat and clean air to breathe. Aside from these necessities, they preserve biodiversity, conserve water, preserve soil, and control climate, among other things. According to these views we are planted various plants in the college campus. Also, a small botanical garden is developed for the study of plants for botany students.

**Table 5.** Total Green cover of the College Campus

Sr. No.	Total Are of the Campus	Total Green Cover	Percent Green Cover
1.	18200 Sq. Meter	10250 Sq. Meter	56.30%

1. Approximate tree cover area in campus: 56.30 %

**Table- 6. 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>	Caesalpinaceae	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	Saptarni	<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 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>	<i>Fabaceae</i>	25

**Figure No.-6. Photographs of Some Plants**



**Abutilon indicum**



**Bryophyllum pinnata**



**Calatropis procera**



**Phyllanthus niruri**



**Ocimum basilicum**



**Tinospora cordifolia**



**Persicaria glabra**



**Plumbago zeylanica**



**Hibiscus rosasinensis**



**Jasminum officinale**



**Indigofera Linnaei**



**Nymphaea odorata**



**Mimosa pudica**



**Spathodia campanulata**



**Bauhinia purpurata**

Our college has green campus, which comprises of following faunas:

### **List of bird species observed in the campus**

**Table-7. List of Birds**

<b>Sr. No.</b>	<b>Common of the Bird</b>	<b>Scientific name of the Bird</b>
1.	Crow	Corvus splendens
2.	Sparrow	Passer domestica
3.	Kingfisher	Alcedo atthis
4.	Bat	Megachiroptera
5.	Owl	Bubo benghalensis
6.	Sunbird	Cinnyris asiaticus
7.	Asian Koel	Eudynamis scolopacea
8.	Pigeon	Columba livia
9.	Myna	Acridothera tristis
10.	Bee eater	Meropidae
11.	Skylark	Eurasian skylark
12.	Black drongo	Asian passerine
13.	Bharadwaj	Greater coucal
14.	Red vented Bulbul	Pycnonotus
15.	Intermediate egret	Ardea intermedia
16.	Indian Robin	Copsychus fulicatus
17.	Indian shrike	Lanius vittatus
18.	Greenish Warbler	Phylloscopus trochiloides



## List of insects species observed in the campus

**Table-8. List of Insects**

Sr. No.	Common of the Insects	Scientific name of the Insects
1.	Grasshopper	Malanoplusdifferentiatis
2.	Moths	Hyposidrataalaca, Digama, Cydalimalaticostalis, Diaphaniaindica, Marucavitrata, Spoladearecurvalis, Chiasmiaspecies, Eudocimamaterna.
3.	Ant	Laciusniger
4.	Butterfly	Papiliodemoleus (Lemon butterfly), Eurema species (Common grass yellow).
5.	Housefly	Musca domestica
6.	Bugs	Nezaravidula
7.	Cricket	Acheta domestica
8.	Mosquito	Culex, Aedes, Anaopheles
9.	Wasp	Asian giant hornet
10.	leafhopper	Amrascadevastan (Jassid)
11.	Dragonfly	Anaxparthenope, Sympetrum flaveolum
12.	Cockroach	Periplaneta Americana, Blattaorientalis
13.	Praying mantis	Mantis religiosa
14.	Termite	Coptotermesformosanus
15.	Beetle	Asian lady beetle
16.	Firefly	Photinus pyralis
17.	Honeybee	Apisindica, Apisfloreia.
18.	Bark mantis	Paraoxypilus
19.	Tiger butterfly	Danaus chrysippus
20.	Fruit fly	Drosophila malanogaster
21.	Cicada	Cicada orni
22.	Stick insect	Medauroideaextradentata

### 13. MANAGEMENT OF HUMAN HEALTH AND SAFETY

The college has given special priority for human health and safety. The following various factors help to manage human health and safety.

#### 1. Regular Health Check-up-

Due to pandemic period regular check-up staff and students performs in the following way

- 1) Two vaccination Camp arranged by the college for the college student and Villagers.
- 2) Temperature checked by temperature gun
- 3) provided sanitizers
- 4) Provided mask
- 5) Maintain the Social distancing



**Figure-7 Covid -19 Vaccination Camp**



**Figure -8 Health Checkup Camp**

## **2. Convenience of Sanitary Napkin machine-**

The Sanitary Napkin machine mounted in Ladies Washroom, it is convenient to used for all girls and ladies staff. The machine is properly serviced and refilled timely

## **3. Separate toilet facility**

The college has separate toilet facility for Boys, Girls, Ladies and gents' staff

- i) Ladies staff 3 toilets and 3 lavatory blocs
- ii) Gents staff 3 toilets and 3 lavatory blocs
- iii) Boys 2 toilets and 10 lavatory blocs
- iv) Girls 2 toilets and 10 lavatory blocs

## **4) First AID Box-**

The college has 6 first AID box, which is mounted in

- |                             |                               |
|-----------------------------|-------------------------------|
| i. 2 in main building       | ii. 1 in Sports department    |
| iii. 1 in Botany Laboratory | iv. 2 in Chemistry Laboratory |

## **5) Fire Extinguisher-**

The Fire Extinguisher is properly serviced and refilled timely

- |                             |                           |
|-----------------------------|---------------------------|
| i) 4 Chemistry laboratories | ii) 1 Electronics/Physics |
|-----------------------------|---------------------------|

## **6) Flexes of Health Awareness -Yes**

## **14.PUBLIC AWARENESS ABOUT ENVIRONMENTAL CONVERSATION: (Flex)**

### **1. Individual Role Related to Environmental Conservation**

Every individual teacher actively involved in every activity related to environmental conservation, programmes like tree plantation, forest conservation awareness, wetland conservation etc.

### **2. Importance of Trees**

Trees play a very important role in the purification of environment, release O<sub>2</sub> and maintain balance of environment, control global warming. Produce organic food for each and every organism on the planet. Tree added property values, trees reduce stress and improve health.

### 3. **Benefits of Organic Farming**

Organic farming is eco-friendly farming; there is no irrational use of chemical fertilizers and pesticides, which pollute overall ecosystem, harmful for flora and fauna including humans. Practice of organic farming do not harm ecosystem.

### 4. **Organization of Tree Plantation Programme. (or any other eco-friendly programme)**

Campus Development committee arranges tree plantation program every year. The main purpose of tree plantation is to save the endangered environment and to beautify our life. The lives of every living organism including humans are inconceivable without the existence of trees in the world. We should organize tree plantation programs in college campus, open lands, road sides, open hills etc.



**Figure- 9. Plant conservation Program**



**Figure- 10. Plant conservation Program**



**Figure- 11. Tree Plantation Program****Figure- 12. Tree Plantation Program****5. Use of Non-conventional Energy:****Solar Panel System: - (Alternate Energy Source)**

Collage has alternate energy source “Solar Energy”.

Solar energy Plant was installed on the roof of the building. The energy generated and used is given in below table.

**Table 9. Monthly Electricity requirement of the college (KWh/Months)**

Months	Initial Meter Reading	Final Meter Reading	KWh Electricity Consumed /Months
Apr-21	30048.9	30642.5	593.6
May-21	30642.5	31361.7	719.2
Jun-21	31361.7	32053.6	691.9
Jul-21	32053.6	33007.2	953.6
Aug-21	33007.2	34055.8	1048.6
Sep-21	34055.8	35022.5	966.7
Oct-21	35022.5	35913.3	890.8
Nov-21	35913.3	36878.7	965.4
Dec-21	36878.7	38009.5	1130.8
Jan-22	38009.5	38837.3	827.8
Feb-22	38837.3	39581.1	743.8
Mar-22	39581.1	40691.5	1110.4

College has installed 15 kW of solar rooftop panel for the generation of the electricity. With this capacity college generates 22500 kWh electricity annually, which is equals to mitigation of 461 tons of carbon dioxide and plantation of 738 trees over the time.

**Table 10. Installation of Solar PV Power Plant:**

Sr. No.	Particulars	Value	Unit
1	Solar PV Plant Capacity	15.3	kW
2	No of PV panels Installed	48	Nos
3	Daily Average Units generated	60	kWh/Day
4	Monthly Average Units Generated	1870	kWh/Day
5	Annual units generated	22500	kWh/Annum
6	Monthly Saving potential	15000	Rs lump sum
7	Annual Saving Potential	180000	Rs lump sum
8	Cost of Solar PV Plant	0.38	Lakh/kW
9	Invested amount	500000	Rs lump sum
10	Simple Payback period	24	Months

### 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.



Figure 14. Installed Solar Panels



Figure 15. Installed Solar Charge controller



Figure 16. ON-Grid Meter



Figure 17. On-line UPS with Battery

### 6. No Smoking, No Tobacco in the Campus Area

Efforts to monitor, promote, implement and enforce smoking free and tobacco free policies in college campus can reduce the prevalence of tobacco product use and secondhand smoke exposure among those who learn, live, work and gather in these environments. Smoking free and tobacco free campuses can promote the health and wellbeing of students, faculties, staff by protecting nonusers from the harmful effects of tobacco smoke.



**Figure-18-No smoking Flex**

## 7. Paperless Office

A paperless office or paper free office is a work environment in which the use of paper is eliminated or greatly reduced. This is done by converting documents and other papers into digital form. Reducing the use of paper saves tree and conserves energy used in converting those trees into papers and in transporting paper products. Going digital reduces this pressure to controls the air pollution. The waste products by paper related industries also dose great harm to ecosystem. It is very important to take digital initiative by saving our files into computers or online instead of on paper goes a long way in protecting the Earth.



**Figure-19 Go Green Flex**

## 8. Plastic Free Campus

Plastics are made from oil and gas, there production harms our environment from added green house gases, plastic is non- biodegradable, it can't digest by nature, it never breakdown. Plastics affect millions of sea and land creatures who are injured or killed by eating them. Plastics are now found everywhere, in our food, drink, in nature and all over the planet. Therefore, we need to stop plastic habits by inspiring students to adopt sustainable values within their own lives. Empowering students in campus to avoid plastics. Enabling college campus to make a meaningful environmental impact.



**Figure 20- Plastic Free Campus Flex**

**Land Management:**

Land management is the process of managing the use of development of land resources. The use of land resources, including soils, water, animals and plants for the production of goods to meet changing human needs, while simultaneously ensuring the long-term productive potentials of these resources and the maintenance of their environmental functions.

**Maratha Vidya Prasarak Samaj's**

**Arts, Science and Commerce College, Ozar (Mig)**

**Green Audit Committee Report (2022-23)**

**Review and Remarks:**

1. Taking into account the facts that the institute is mainly an undergraduate college. The environmental awareness initiatives are considerable.
2. The Vermicompost Unit is appreciable task to produce and the college took remarkable green initiative and tried to induce awareness among students.
3. The area few recommendations are added to limit the hazard of waste management using eco-friendly and scientific techniques.
4. This may lead to the prosperous future in context of Green Campus & thus sustainable environment and community development.
5. The College Follows the Necessary practice towards environmental consciousness, well maintained drip irrigation system throughout the campus area is appreciable work
6. The College tried the Best to use renewable energy through solar energy.

**Recommendations:**

1. Expand the Vermicompost Unit. since there is considerable amount of Foliage/plant waste generated in the Campus.
2. Reduce the absolute amount of waste that it produces from college staff offices.
3. Increase the number of compost pits or increase its size
4. Enhance student's participation to Develop environmental awareness among them.
5. Ensure that an audit is conducted annually and action is taken on the basis of audit report, recommendation and findings.
6. Adopt an environmental policy for the college
7. Establish a purchase policy towards environmental friendly materials
8. Conduct more seminars and group discussions on environmental education
9. Students and staff can be permitted to solve local environmental problems
10. Establish water, waste and energy management systems
11. Remove damaged taps and install sensitive taps is possible.
12. Establish water treatment systems.
13. Awareness programs on water conservation to be conducted.
14. Practice of waste segregation to be initiated.



15. Avoid paper plates and cups for all functions in the college.
16. Encourage students not just through words, but through action for making the campus green
17. Conduct competitions among departments to make students more interested in making the campus green.
18.
  - It is recommended to plant oxygen generated plant in office, workshop where possible plant in campus area.
  - Plants such as
    1. Pothos Botanical Name: Epipremnum aureum ...
    2. Peace lily Botanical Name: Spathiphyllum wallisii ...
    3. Areca Palm Botanical Name: Dypsis lutescens ...
    4. Snake Plant Botanical Name: Sansevieria trifasciata ...
    5. Weeping Fig Botanical Name: Ficus Benjamina ...
    6. Orchid Botanical Name: Orchidaceae ...
    7. Spider Plant Botanical Name: Chlorophytum comosum ...
    8. Christmas Cactus Botanical Name: Schlumbergera bridgesii ..

**Name of the committee members**

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External Energy Auditor

Nova Power Quality

