

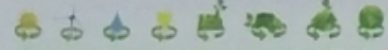


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*GREEN AUDIT
REPORT
FOR
HUZURPAGA
MAHILA VANIJYA
MAHAVIDYALAYA
PUNE*

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To Make The Earth A Better Place To Live On

Report By:

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BE. MECHANICAL, MDBA, ENERGY AUDITOR, INDIAN GREEN
BUILDING ACCREDITED PROFESSIONAL, MEMBER NATIONAL
SAFETY COUNCIL OF INDIA

Prashant S. Shinde



Date – 05/04/2018

College name : Huzurpaga Mahila Vanijya Mahavidyalaya
Date of Establishment : 2001
Address : Laxmi Road Pune -, Maharashtra, India.
Contact details : Tel: 020-24497538 email: hmvm2001@gmail.com
Scope of audit : Green Audit for college
Number of staff : Teaching : Total: 17 , Male: 4 Female: 13
Non Teaching : Total: 9 , Male: 2 Female: 7

Number of students : Total: 1146 .

Courses offered : BCOM, BBA, BBA (C.A)

College key members Principal : Dr. K. P. Bairagi.
Dr. Prashant Mohite Assistant Prof .

FOCUS AREAS:

- A. Solid Waste and Recycling
- B. Electricity and Natural Gas Use
- C. Water and Waste Water Management
- D. Wetlands, Stormwater Management and Campus Ground Management
- E. Emissions and Air Quality
- F. Food Services
- G. Hazardous Waste management
- H. e-waste management

BUILDING SURVEY:

1. Total campus area: 13935.45 square meters.
2. Building: 6102 square meters.
3. Ground Area: 2081 square meters.
4. Green Area: 250 square meters.
5. Road/Paved Area: 532 square meters.
6. Terrace Area: 1152 square meters.
7. Impervious area: 1684 square meters. Pervious area: 2331 square meters.
8. Number of Class Rooms: 16
9. Number of Laboratories: 2
10. Water filters with aqua guard: 3
11. Water coolers: 3
12. Number of Fire Extinguishers: 11
13. Classrooms with sufficient cross ventilation and light.
14. Laboratories with safety instructions and measures.
15. Emergency contact numbers displayed.

USE OF RENEWABLE ENERGY:

Terrace area of college buildings can be utilized to set up Solar PV plant.
Proposed 8 KW system.

SOLID WASTE:

1. Types - Paper, Plastic, Metals, Glass, Rubber, books, Food Waste in Canteen and E-Waste.
2. Paper consumption: Re use of paper - System is evident. Both sides of paper are used.
3. Regular activities digitally monitored.
4. Garbage: segregated into wet and dry centrally in campus. Plastic waste collected in special bins and handed over to PMC.
5. E-book system is used. Digital Library.
6. Canteen food waste & plant liter disposed to Vermiculture pit.

E-WASTE MANAGEMENT:

1. Disposal of E-wastes, Non-working computers, monitors and printers.
2. It is collected in a store and is to be handed over to MPCB approved agency .

ELECTRICITY AND GAS USAGE:

- Gas Usage in Canteen .
- Average Monthly Electricity Consumption. 6755 kwh.
- Connected load 139 KW

LED street lights

Also, following suggestions are made for energy conservation:

- All computers have to be set for power save mode for switching off screen if not used for 15 minutes and hibernate if not used for more than 60 minutes.
- Students may be educated towards saving of electricity by displaying messages in the classroom and common public area for switching off lights, fans and computers when not required.
- Energy audit conducted.

AIR QUALITY MONITORING:

1. PM₁₀ / PM_{2.5} is monitored for the vehicle coming to the airport. Data is available.
2. Ambient noise level is monitored.
3. VOC / SVOC / PCB is monitored at various PMCs water treatment plants.

WATER AND WASTE WATER :

1. Sources of Water: PMC supply.
2. Total Number of water tanks:
 - Domestic tank of 23000 litres capacity.
 - Flushing tank of capacity 20000 liters.
3. All tanks are cleaned every 6 months by External agency. Records available.
4. Waste water management: connected to PMC.
5. Drinking water testing to be done 4 times in a year.
6. Water Leakage: Regular checking is done, in house staff available to rectify leakages.
7. Number of washrooms: data is available. Total: 5
 - Male Toilet Blocks: 1 Female Toilet Blocks: 4.
8. Rain Water harvesting Potential during Monsoon: 806 Cubic Meters
Considering the Average rainfall of the region as 700 mm in a year.

AIR QUALITY MONITORING:

1. PUC- PUC is mandatory for the Vehicles coming in the campus. Camp conducted every year.
2. Awareness done for students.
3. VOC / NON-VOC based - Apparent use of Non -VOC water based paints.

FOOD SERVICES:

1. Segregation of wet and dry garbage done.
2. Food Waste disposed in Vermiculture pit.
3. Food License and shop act license available with Canteen Operator.

1	शुद्ध		
2	शुद्ध		
3	शुद्ध		
4	शुद्ध		
5	शुद्ध		
6	शुद्ध		
7	शुद्ध	Terminalia Catappa	1
8	शुद्ध	Moringa	1
9	शुद्ध	horsetail	1
10	शुद्ध	Michelia Champaca	1
11	शुद्ध	Artocarpus integrifolia	2
12	शुद्ध	Plumeria rubra	1
13	शुद्ध	Thevetia peruviana	1
14	शुद्ध	Ficus religiosa	2
15	शुद्ध	Artocarpus Squamosa	2
16	शुद्ध	Androschita indica	3
17	शुद्ध	Syzygium Cumini	2
18	शुद्ध	Plumeria alba	1
19	शुद्ध	Mimosa pudica	2
20	शुद्ध	Bretonia Pteridifera	2
21	शुद्ध		1
22	शुद्ध		1
23	शुद्ध		1
24	शुद्ध		1
25	शुद्ध		1
26	शुद्ध		1
27	शुद्ध		1
28	शुद्ध		1
29	शुद्ध		1
30	शुद्ध		1
31	शुद्ध		1
32	शुद्ध		1
33	शुद्ध		1
34	शुद्ध		1
35	शुद्ध		1
36	शुद्ध		1
37	शुद्ध		1
38	शुद्ध		1
39	शुद्ध		1
40	शुद्ध		1
41	शुद्ध		1
42	शुद्ध		1
43	शुद्ध		1
44	शुद्ध		1
45	शुद्ध		1
46	शुद्ध		1
47	शुद्ध		1
48	शुद्ध		1
49	शुद्ध		1
50	शुद्ध		1

EFFORTS FOR CARBON NEUTRALITY: Tree list

Sr.No	झाडाचे मराठी नाव	Botanical name	Number
1	अशोक	Saraca indica	11
2	आंबा	Mangifera indica	5
3	चिंच	Tamarindus indica	1
4	आपटा	Bauhinia racemosa seeds	1
5	नारळ	Cocos nucifera	6
6	इंडियन मोहागणी	Swietenia mahagoni	1
7	बदाम	Terminalia Catappa	1
8	बुच	Millingtonia hortensis	1
9	सोनचाफा	Michelia Champaca	1
10	फणस	Artocarpus integra	2
11	लाल चाफा	Plumeria rubra	1
12	बिट्टी	Thevetia peruviana	1
13	विलायती चिंच	Pithecolobium dulce	2
14	सीताफळ	Annona Squamosa	2
15	कडुलिंब	Azadirachta indica	3
16	जांभूळ	Syzygium Cumini	2
17	पांढरा चाफा	Plumeria alba	1
18	बकुळी	Mimusops elengi	2
19	पाम	Borassus Flabellifer	2
20	चाफा		1
Total			47

What are the initiatives taken by the college to make the campus eco- friendly?

- Awareness on environment issues and Awareness of carbon footprints.
- Trees are planted in the campus and outside the campus.
- Students are made aware about environmental issues.
- Environment Awareness rallies and street plays were organised.
- Projects on Environment were carried out.
- Swach Bharat Abhiyan conducted.
- Energy conservation - maximizing the use of natural light.
- Vending machine for sanitary napkins will be available soon at ladies rooms, also disposal methods is evident. (In process)
- NSS activities –
 - Swach Bharat Abhiyan
 - Cleaning of surrounding area
 - Tree plantation
 - Burning of garbage is not allowed in campus.
 - Plastic free campaign.
 - 50 trees planted and adopted for survival.
 - Blood donation camp held.

Recommendations for making the Campus Green.

1. Solar PV plant proposed on Terraces of buildings. It would help to tap the abundantly available renewable Energy and also keep the roofs of the buildings cooler.
2. Stand alone Solar Street lamps with LED lights need to be installed throughout the entire campus. They can be fitted with timers to start and stop them automatically.
3. Sewage treatment plant needs to be set up. This would help saving precious water from the in campus well. The treated water from the STP can be used for gardening as well for flushing.
4. Water efficient fittings and taps to be installed in toilets, bathrooms and faucets to save water. Leakages need to be checked and corrected on a regular basis.
5. Rain Water Harvesting Potential during Monsoon:806 Cubic Meters from Roof Top. Considering the Average rainfall of the region as 700 mm in a year.
6. Shady trees to be planted in the areas of the parking to reduce the Heat Island effect.
7. Planting trees of indigenous species. The advantage of planting local variety trees is that their survival rate is high and most of them including trees like

Neem, Vad and Pipal have good air purifying abilities. Tree list of existing trees in the campus needs to be prepared with their species names and quantity.

8. Lot of biomass gets generated out of leaves and broken twigs of trees. This biomass can be used as fertilizer after treatment. It is recommended that this biomass is put in Vermiculture pit or simply used as ground cover. This will avoid transpiration from the soil and keep the soil cool. Burning of the biomass should not to be allowed in campus.
9. All kind of garbage generated in the campus needs to be segregated. Wet garbage and Dry garbage needs to be kept in different coloured bins. E-Waste to be kept in different bins. Garbage should not be burned in the campus. The staff members and the students should be trained and encouraged in compaction and segregation of the garbage. There are some agencies which could collect the plastic waste from the campus.
10. Setting up an Environment Committee and Draft an Environment Policy. This would help the staff and students to get conversant with the objectives of the Top Management of the Institute towards environment. A sense of belonging to an Eco Friendly and Green Campus will help each individual participate in cleaning and greening it.
11. Seminars and workshops should be frequently arranged to make everyone aware about the Environment friendly measures.

Conclusion –

Based on the audit conducted at your college you are complying with all important requirements of clause no. 7 of NAAC requirements.

Additional points are given to you for further improvements to strengthen environmental system adopted by you. By complying with these points, the effectiveness of system will be improved.

l. M. Mude

