



**CONSOLIDATED REPORT ON ENVIRONMENTAL SUSTAINABILITY – WASTE MANAGEMENT, GREEN PRACTICES, WATER CONSERVATION, ENVIRONMENTAL CONCIOUSNESS, TREE PLANTATION & POWER-SAVING INITIATIVES BY COLLEGE**

**INITIATIVES FOR WASTE MANAGEMENT**

The key activities of the College have very less impact on the environment as the College is very careful in generating as low waste as possible.

The College has segregated its waste management into four parts:

- ✓ Solid waste management
- ✓ Liquid waste management
- ✓ Biomedical waste management
- ✓ E-waste management

**Solid waste management:** The solid waste is generated during routine activities carried out in the College and includes waste paper, plastic, glass, metal, food etc. The waste is segregated at every source (department). The administrative head in each department ensures that the waste is collected at designated time intervals. The department's *Safai* Workers collect, segregate and compile the waste in respective dustbins; Green (for biodegradable waste) and Blue (for non-biodegradable waste). The non-biodegradable waste is emptied in the dumping yard in the campus. The College has contacted an authorized vendor who collects this non-biodegradable waste for disposing at the landfills authorized by the Government.

**Liquid waste management:** Liquid waste generated by the College is of two types: a) Sewage waste; b) Canteen's liquid waste. College has a concealed sewage system comprising of underground septic tanks made of concrete. The sewage effluent water is passed to the concealed drainage which connects to the main sewage drainage system provided by the Municipal Corporation. Canteen's liquid waste is collected in to the Compost pit.

**Biomedical waste management:** Being a Girls' College, the major biomedical waste generated on daily basis is used sanitary pads. The used sanitary pads are disposed of by using the incinerator facility available in the College on daily basis.

**E-waste management:** Old/obsolete Computer systems, memory chips, motherboards, compact discs, cartridges etc generated by electronic equipment such as Computers, Phones, Printers, Fax and Photocopy machines are disposed properly. The e-waste generated from hardware which cannot be reused or recycled is collected at the marked location labeled as 'E-waste Area' in the Campus. The cartridges of printers are refilled outside the campus. UPS Batteries are recharged and repaired by the suppliers.

**Water recycling system:** As of now, the College doesn't have any water recycling system however the facility proposal is under consideration and may soon materialize.



**Hazardous chemical and radioactive waste management:** The College neither has the requisite license nor handles any sort of hazardous chemical or radioactive material.

### **INITIATIVES FOR GREEN PRACTICES**

**Students, staff using Bicycles, Public Transport, Pedestrian friendly roads:** Many among Staff and Students either use Bicycles or Public transport system to commute to the College. The road construction inside the College Campus is such that on both sides of the road enough walking space is provided for the Pedestrians. Concrete footpaths are also constructed for providing convenience to the pedestrians.

**Plastic free Campus:** Single use plastics are completely banned in the College. Polyethene bags of less than 50 microns thickness are strictly not allowed in the College Campus.

**Paperless Office:** Usage of paper on campus is minimized and printing is done on both sides of the paper. Maximum communication within departments and between departments and students is made through e-mails and other digital and social media channels.

**Green landscaping with trees and plants:** College Campus has several varieties and species of plants including herbs, shrubs and big shady trees. This provides home to natural flora for the birds. College campus has tried for creating a natural environment habitat outdoors combined with well-ventilated indoors. Climate control measures like good shading, sufficient day-lighting, proper ventilation and adequate cooling have been considered in architectural design of the College built-up plan, thus enabling the College building to have natural cooling during summer. The College has created two groups of students namely, '**Kasturba Samuh**' and '**Green Army**', each comprising of 50 students, dedicated towards greenery and cleanliness of College campus. Kasturba Samuh takes care of the cleanliness and hygiene inside and outside the College Campus while the Green Army takes care of plantation of saplings, trees and maintenance of planted trees and shrubs. A monthly 'Green Audit' is also done in the College Campus which supervises the green landscaping activities inside the Campus. Proper Record is maintained for the Green Audit inside the College campus. The College has also created another group called '**Aqua Club**' comprising of 50 girl students. The Aqua Army takes care of drinking water hygiene and round the clock availability of hygienic drinking water in the College Campus.

### **INITIATIVES FOR WATER CONSERVATION / RAIN WATER HARVESTING**

The College has rainwater harvesting facility comprising of a network of rain water drainage PVC pipes which collects every ounce of rain water falling on the roof tops of the buildings in the College. The rain water collected through these PVC drainage pipes is channelized to a large Soak-pit/ Drain pit built inside the campus. The soil available in the College is red soil which has a great soaking capacity. 50% of College Campus is non-concrete and act as rain water basin as well as a drain-pit/soak-pit. This system renews/recharge the bore well not only of the College but of the surrounding area too. Drain pit built in College is used to soak the rain water and recharge the groundwater table. The huge volume of rainwater from the roof is collected and is used for ground water level improvement and for improving the water level. The College emphasizes on the significance of water conservation and explains to all the students the importance of preserving and saving it. Students are encouraged to use water wisely and only when necessary. They also act immediately upon witnessing any wastage and take necessary action to stop it. One of the ways of preserving water in the College is rain water harvesting.



## **INITIATIVES FOR ENVIRONMENTAL CONCIIOUSNESS**

1. Stickers displayed at various sites in the College Campus and formation of Aqua Club to spread awareness for water conservation.
2. Green landscaping and plantation of saplings in the College Campus by Green Army and Kasturba Samuh formed by the College committee.
3. Stickers displayed at various sites in the College Campus to spread awareness for tree conservation and promotion of greenery.
4. Several activities have been organized to sensitize the students and staff for environmental consciousness and sustainability.
5. Sculpting of nearly 300 Eco-friendly Lord Ganesha Idols in the College campus by the students and staff to create awareness for reducing chemical load of water bodies used for immersion of idols.

### ***Activities for the promotion of environmental consciousness and sustainability***

27/01/2017 to 28/01/2017	National Conference on Microbiology: Benefits to Human Life in Present Scenario	Sponsored by: UGC Chief Guest: Dr. M.L. Nayak Patron: Dr. Deepak Karkun
03/02/2017 to 04/02/2017	2 days National Conference on Behavioral Effect of Animals on Human Life and Environment	Sponsored by UGC Organized by Dept. of Zoology
06/02/2017 to 07/02/2017	2 days National Workshop on Forest Conservation	Sponsored by: UGC Organized by Dept. of Botany
06/02/2017	National Workshop on Use of Chemicals in Daily Life	Sponsored by: UGC Organized by: Dept. of Chemistry
25/10/2017	Observance of National Wild-life Conservation Week and Lecture Series	Lectures by Dr. Cotty Choubey; Dr. Usha Sahu; Dr. Mazid Ali & Dr. Seema Tripathi Organized by Dept of Zoology
05/06/2018	Conference organized on World Environment Day Oath Taking for Plastic Free College Campus	Organized by College's IQAC Committee
20/08/2018	Formation of Green Army in the College Campus	Organized by College Admin, and Gender Champion Ms. Ruchi Sharma
08/09/2018	Girl Students made 250+ Eco-friendly Lord Ganesha Idols in the College Campus	Organized by College's Dept of Drawing
18/09/2018	Plantation of Saplings (100 Nos.) in Mahmara & Kodia Villages of Durg district	Tree plantation drive by NSS, Kasturba Samuh & Green Army to curb air pollution
16/10/2018	Zoological Academic Week organized in the College Campus	Organized by Dept of Zoology
17/10/2018	Lecture on Inter-relationship between Humans and Environment	Organized by Dept of Geography
07/12/2018	Lecture on Increasing Environmental Issues held in College Campus	Speaker: Prof. Siyaram Sharma Organized by Dept of Geography
15/01/2019	Formation of Aqua Club	Organized by Dept of Chemistry



## **INITIATIVES FOR TREE PLANTATION**

1. Green landscaping and plantation of saplings in the College Campus by Green Army and Kasturba Samuh formed by the College committee.
2. Tree plantation drive in the Kodia and Mahmara villages of Durg district by Green Army, Kasturba Samuh and NSS wing of the College. Nearly 100+ saplings were planted in each village.
3. Donation of Tree-guard by Teaching Staff for protection of planted saplings in the College campus.
4. Plantation of saplings of Neem, Karanja, Amla, Gulmohar, Almond, Kadam in the College campus by students, staff, Green Army, Kasturba Samuh, Aqua Club.

## **INITIATIVES FOR POWER SAVING**

1. Total 100% replacement of old fluorescent tube lights with power saving LED Tube lights of 18 Watts each.
2. Therefore the annual lighting power requirement met through LED lights is 100% which is approximately 9000 KWH units per year.
3. Solar Cell LED Bulbs 4 Nos. of 6Watts each i.e., 4x6 Watts = 24 Watts were installed at four different locations in the College Campus.
4. Stickers displayed at various sites in the College Campus to spread awareness for saving electricity.

### **Percentage of annual lighting power requirements met through LED bulbs**

Total Lighting requirements	Percentage Lighting through LED bulbs	Percentage Lighting through other sources
9000 KWH	100 %	Nil

### **Percentage of annual power requirement met by the renewable energy sources**

Power requirement met by renewable energy sources	Total power requirement	Renewable energy source	Renewable energy generated and used	Energy supplied to the grid
105 KWH	15000 KWH	SOLAR	105 KWH	NIL



Principal

Govt. Dr. W.W. Patankar Girls' PG College, Durg

**PRINCIPAL**

**Govt. Dr. W.W. Patankar  
Girls PG. College, Durg (C.G.)**





**RAIN WATER HARVESTING**



**BOREWELL NATURAL RECHARGE BY SOIL WATER SOAKING  
(NON-CONCRETE BASE)**



**WATER TANK**



**BOREWELL RECHARGING BY PLACING WATER TANK  
NEAR TO BOREWELL**





**WELL MAINTAINED OVERHEAD TANK WATER DISTRIBUTION SYSTEM**



**DISPLAY OF MESSAGES FOR WATER CONSERVATION**



**RO DRINKING WATER FACILITY**



**COLLEGES' AQUA CLUB FOR WATER CONSERVATION & HYGIENE**