THE
PROGRESS
A JOURNEY TOWARDS PERFECTION

ENVIRONMENTAL – GREEN AUDIT REPORT

(Year: 2019-2020)

THE PROGRESS
Society House – Sri Aurobindo Yoga and Knowledge Foundation
Near SRT Agro Farm, Gram – Funda, Dist :Durg, Patan
Chhattisgarh – 491111

GOVERNMENT NAVEEN COLLEGE

BORI
CHATTISGARH

ENVIRONMENTAL – GREEN AUDIT REPORT

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OVERVIEW OF INSTITUTE

Establishment of a new government college in Bori with the faculty of Arts, Commerce and Science from the session 2012-13, is a result of a long-standing demand of the public and the academic world. Keeping in view the public sentiments, student interest and to the fulfilment of need of higher education of about 2700 students studying in the schools of this area and village Bori, this college has been established in 2012. In the year 2016 February, the new building of the college was inaugurated and from the new session 2016-17, the college started operating completely in the new building. Govt. approval to start M. Com In the session 2017-18 and M.A. (Sociology) in session 2018- 19 in college, was a special gift given to the students of this area.

From the very first year of its establishment, the college has recognized its identity in the form of quality education, discipline and unique academic and eco-friendly environment. Students of the area are mostly from the economically weaker section of the society and do not get opportunities to explore and expose themselves. Therefore, along with the regular curriculum, college is also committed for the all-round personality development of the students. Apart from studies, high level practical facilities are being made available to the students in the college within limited resources. With these efforts, college is trying to make its own unique identity in the field of higher education for the students of this rural area.

It is an Institute with a difference in its value base system in co-operates ethics and best practices in each & every student & faculty. The Institution promotes value-based education as well as developing a Nature friendly Environmental, clean & Green Campus.

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ENVIRONMENTAL AUDIT -QUESTIONARE

The areas of eco/environmental/green auditing to be followed/practiced by participating institutions:

I.   Waste Minimization andRecycling
II. Greening
III. EnergyConservation
IV. WaterConservation
V.   CleanAir
VI. AnimalWelfare
VII. EnvironmentalLegislative
VIII. GeneralPractices

Dose any Environmental Audit conducted earlier?NO

What is the total permanent population of the Institute?

	Male	Female	Total
Students	241	339	**580**
Teachers	5	9	**14**
Non Teaching Staff	2	1	**03**
Sub Total	248	349	**597**
Approximate Number of Visitors (Per day)			**5**
What is the total number of working days of your campus in a year?			**270**

Where is the campus located?Government college, Bori ,Durg, Chhattisgarh
                    Pin : 491001

Location :   Government college, Bori ,Durg

Longitude	81.3038
Latitude	21.1321
Division	Durg

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Which of the following are available in your institute?

1	Garden area	√
2	Playground	√
3	Kitchen	No
4	Toilets	√
5	Garbage Or Waste Store Yard	√
6	Laboratory	√
7	Canteen	√
8	Hostel Facility(numbers)	No
9	Guest House	No

Which of the following are found near your institute?

1	Municipal dump yard : No
2	Garbage heap : No
3	Public convenience : No
4	Sewer line : No
5	Stagnant water : No
6	Open drainage : No
7	Industry = (Mention the type) : No
8	Bus / Railway station : No
9	Market / Shopping complex / Public halls: No

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I – WASTE MINIMIZATION ANDRECYCLING

1.	Does your institute generate any waste?If so, what are they?	Yes Paper, Chemical			
2.	What is the approximate amount of waste generated per day? (in Kilograms/month) (approx.)	Bio Degradable	Non-Biodegradable	Hazardous	others
		-	-	-	10 news papers per month
3.	How is the waste generated in the institute managed? By 1 Composting 2 Recycling 3 Reusing 4 Others(specify)	1. Composting 2. Reusing			
4.	Do you use recycled paper in institute?	No			
5.	Do you use reused paper in institute?	Yes			
6.	How would you spread the message of recycling to others in the community? Have you taken any initiatives? If yes, please specify.	1. Place recycling bins in public areas 2. Teaching recycling to students to spread message through them in community 3. Encouraging staff, students and others to save their documents in soft copies in their mails & hard drives instead of printing their hard copies. 4. Encouraging people to use both sides of paper for printing & also for using small fonts to save paper. 5. Reusing envelopes by sticking new stickers on them 6. By displaying posters that reminds students what can be composted or recycle 7. By doing No Polythene Campaign in which students make paper bags and distributed them to shopkeepers to use them instead of polythene bags in nearby area.			
7.	Can you achieve zero garbage in your Institute? If yes, how?	Yes. It can be done by: 1. Tracking the source. 2. Proper separation and collection of waste			

	Composting
	3. Reuse and Repair
	4. Waste Reduction Initiatives

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II – GREENING THECAMPUS

8.	Is there a garden in your institute?	Yes	
9.	Do students spend time in the garden?	Yes	
10.	Total number of Plants in Campus	Plant type	
		Trees	623
		Ornamental	10
11.	Suggest plants for your campus. (Trees, vegetables, herbs, etc.)	Trees and herbs.	
12.	Is the university campus have any Horticulture Department	No	
	Number of Staff working in Horticulture Department	-	
13.	NumberofTreePlantationDrivesorganized byCollegeperannum.(IfAny)	Two (on 15 August & during NSS camp)	
14.	Number of Trees Planted in Last FY.	22	
	Survival Rate	72 %	
15.	Plant Distribution Program for Students and Community	*Yes , College has conducted programs. College presented Plants to Chief Guest/ Guest/ Judges of various program organized in campus.Also during NSS camp.*	
16	Plant Ownership Program	Yes.	

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III -ENERGY

13.	List ten ways that you use energy in your institute. (Electricity, LPG, firewood, others). Using this list, try to think of ways that you could use less energy every day.	• Electricity – LED & CFL are used
14.	Are there any energy saving methods employed in your institute? If yes, please specify. If no, suggest some	1 switching off the fans and lights when not required. 2 LED & CFL are used instead of tube lights 3 By avoiding artificial lighting on sunny days 3 By using proper insulation to avoid energy loss in the form of heat 4 By unplug computers, printers etc. when not in use 5 By making students aware of power conservation Monitoring by student union and teacherscommittees to make sure that energy conservation methods are being implemented in college campus
15.	How many CFL/LED bulbs has your institute Installed?	50
16.	Are any alternative energy sources employed / installed in your institute? (photovoltaic cells for solar energy, windmill, energy efficient stoves, etc.,) Specify.	No
17.	Do you run "switch off" drills at institute?	Yes
18.	Are your computers and other equipment's put on power-saving mode?	Yes
19.	Does your machinery (TV, AC, Computer, weighing balance, printers, etc.) run on standby modes most of the time? If yes, how many hours?	No

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IV – WATERCONSERVATION

20.	List four uses of water in your institute	1. Plantation 2. Drinking 3. Cleaning 4. Washrooms
21.	How does your institute store water? Are there any water saving techniques followed in your institute?	In overhead tanks Rain water harvesting
22.	If there is water wastage, specify why and How can the wastage be prevented / stopped?	No
23.	Locate the point of entry of water and point of exit of waste water in your institute. Entry- Exit-	Entry-Bore well Exit-water drainage
24.	Write down four ways that could reduce the amount of water used in your institute	Hand Sanitizer Installation Use a broom to clean driveways, sidewalks and steps instead of cleaning them with water Recycling Rooftop Rainwater By educating Students By proper maintenance of pipelines to avoid leakages
25.	Record water use from the institute water meter for six months (record at the same time of each day). At the end of the period, compile a table to show how many liters of water have been used.	College does not have water meter
26.	Does your institute harvest rain water?	Yes
27.	Is there any water recycling System.	No

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V – CLEANAIR

28.	Are the Rooms in Campus are Well Ventilated?	Yes				
29.	Window Floor ratio of the Rooms	26:1				
30.	What is the ownership of the vehicles used by your college? (Please Tick ✓ only one)	V	Operator-owned vehicles			
			College-owned vehicles			
			A combination of campus-owned and operator-owned vehicles			
31.	Provide details of College-owned motorized vehicles?	Buses	Cars	Vans	Other	Total
	No. of vehicles	Nil	Nil	Nil	Nil	Nil
	No. of vehicles more than five years old	Nil	Nil	Nil	Nil	Nil
	No. of Air conditioned vehicles	Nil	Nil	Nil	Nil	Nil
	PUC done	Nil	Nil	Nil	Nil	Nil
32.	Specify the type of fuel used by your College vehicles:	Buses	Cars	Vans		Other
	Diesel	Nil	Nil	Nil		Nil
	Petrol	Nil	Nil	Nil		Nil
	CNG	Nil	Nil	Nil		Nil
	LPG	Nil	Nil	Nil		Nil
	Electric	Nil	Nil	Nil		Nil
33.	Air Quality Monitoring Program (If Any)	No				
34.	Students suffer from respiratory ailments? (If Any)	No				
35.	Details of Genset	Genset				

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VI – ANIMALWELFARE

37	List the animals (wild and domestic) found on the campus (dogs, cats, squirrels, birds, insects, etc.)	Generally in College campus following animals found- 1. Squirrels 2. Cats 3. Birds 4. Insects 5. Owl
36.	How many dogs in your area have undergone Animal Birth Control - Anti Rabies (ABC - AR)?	No we don't have pets
37.	Does your institute have a Biodiversity Programme or a KARUNA CLUB?	No

VII – ENVIRONMENTAL LEGISLATIVECOMPLIANCE

38.	Are you aware of any environmental Laws pertaining to different aspects of environmental management?	The Environment (Protection) Act 1986
39.	Does your institute have any rules to protect the environment? List possible rules you could include.	Yes, written Institutions given.
40.	Dose Environmental Ambient Air Quality Monitoring conducted by the Institute?	Yes through plantation We have mother tough plant in campus
41.	Dose Environmental Water and Wastewater Quality monitoring conducted by the Institute?	Water Harvesting
42.	Dose stack monitoring of DG sets conducted by the Institute?	No
43.	Is any warning notice, letter issued by state government bodies?	No
44.	Dose any Hazardous waste generated by the Institute? If yes explain its category and disposal method	No
45.	Dose any Bio medical waste generated by the Institute? If yes explain its category and disposal method	No

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VIII –GENERAL

46.	Are you aware of any environmental Laws pertaining to different aspects of environmental management?	The Environment (Protection) Act 1986
47.	Does your institute have any rules to protect the environment? List possible rules you could include.	Yes Conservation energy Save water Use eco-friendly products Start a compost pile Plant vegetables Recycle and reuse Use cloth shopping bags
48.	Does housekeeping schedule in your campus?	Yes
49.	Are students and faculties aware of environmental cleanliness ways? If Yes Explain	Yes Students are made aware about the environmental cleanliness by Poster campaign Environmental studies is a subject of their syllabus Lectures By celebrating environment related important dates
50.	Dose Important Days Like World Environment Day, Earth Day, and Ozone Day etc. eminent in Campus?	Yes
51.	Dose Institute participated in National and Local Environmental Protection Movement?	Yes
52.	Dose Institute has any Recognition/certification for environment Friendliness?	No
53.	Dose Institute using renewable energy?	No
54.	Dose Institution conducts a Green/environmental audit of its campus?	Yes
55.	Has the institution been audited / accredited by any other agency such as NABL, NABET, TQPM, NAAC etc.?	Institution is going through NAAC assessment process and submitted IIQA

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BEST PRACTICES/INITIATIVES FOR ENVIRONMENT

- Save Electricity

- Use by cycles

- Save water

- Reduce paper waste

- Water conservation

- Water Harvesting

- Institutions to students to value nature

- Plantation

- Awareness programs

- No plastic program

- Eco friendly

- cleanness

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RECOMENDATIONS

1. Observations and Recommendations

1.1 Water Use This indicator addresses water consumption, water sources, irrigation, storm water, appliances and fixtures. A water audit is an on-site survey and assessment to determine the water use and hence improving the efficiency of its use.

a) Observations:

Observed that Tube well are major sources of water in college. Water is used for drinking purpose, toilets and gardening. During the survey, no loss of water is observed, neither by any leakages, nor by over flow of water from overhead tanks. The data collected from all the departments is examined and verified. On an average the total use of water in the college is not measured in L/day, and not cleared how much water consumption is for domestic, gardening purposes and drinking purpose. Rain water harvesting units are also functional for recharging ground water level.

b) Recommendations:

In campus small scale/medium scale/ large scale reuse and recycle of water system should be in sufficient amount. Ensure that all cleaning products used by college staff have a minimal detrimental impact on the environment, i.e. they are biodegradable and non-toxic. Gardens should be watered by using drip/sprinkler irrigation system to minimize water use. Also suggested to measure daily utility of water on an average.

2. Energy Use and Conservation

This indicator addresses energy consumption, energy sources, energy monitoring, lighting, appliance, natural gas and vehicles. Energy use is clearly an important aspect of campus sustainability and thus requires no explanation for its inclusion in the assessment.

a) Observations:

Energy source utilized by the campus is electricity only. Total average energy consumption is determined and mentioned in register month wise along with day wise. The entire campus including common facility centres are equipped with CFL , LED lamps and LED tube lights, except at few locations.

Also, campus administration runs switch–off drill on regular basis.

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b) Recommendations :

- In campus premises electricity should be shut down supply after occupancy time, to prevent power loss due to eddy current.

- Support renewable and carbon-neutral electricity options on any energy purchasing consortium, with the aim of supplying all college properties with electricity that can be attributed to renewable and carbon-neutral sources.

- It is preferable to sign MOU from a company that invests in new sources of renewable and carbon-neutral electricity.

- Installation of LED lamps instead of CFL and replacing the old tube lights with the new LED tubes. 5–star rated Air Conditioners; Fans should be used for saving of energy.

- Cleaning of tube-lights/bulbs to be done periodically, to remove dust over it.

3. **Waste Generation** This indicator addresses waste production and disposal of different wastes like paper, food, plastic, biodegradable, construction, glass, dust etc. and recycling. Furthermore, solid waste often includes wasted material resources that could otherwise be channeled into better service through recycling, repair, and reuse. Solid waste generation and management is a burning issue. Unscientific handling of solid waste can create threats to everyone. The survey focused on volume, type and current management practice of solid waste generated in the campus.

a) Observations

Waste generation from canteen and tree droppings and lawn management is a major solid waste generated in the campus. Single sided used papers reused for writing and printing in all departments and recently both side printing is carried out as per requirements. The waste generated by newspapers, magazine and of cartons is 10 kg/month. Non biodegradable waste (1/2 KG/month) is generated by the department, office, garden etc. but it is neither categorized at point source nor given any source to minimize it.

Recommendations :

- Reduce the absolute amount of waste that is produced from college staff offices. Make full use of all recycling facilities provided by City Municipality and private suppliers, including glass, cans, white, colored and brown paper, plastic bottles, batteries, print cartridges,

cardboard and furniture.

- Provide sufficient, accessible and well-publicized collection points for recyclable waste, with responsibility for recycling clearly allocated. Metal waste and wooden waste should stored and send to authorized scrap agents for further processing.

- Important and confidential papers after their validity to be sent for pulping.

- Vermicomposting should be adopted on at least 300 sq. ft. of land.

E-Waste Generation E-waste can be described as consumer and business electronic equipment that is near or at the end of its useful life. This makes up about 5% of all municipal solid waste worldwide but is much more hazardous than other waste because electronic components contain cadmium, lead, mercury, and Polychlorinated biphenyls (PCBs) that can damage human health and the environment.

a) Observations E-waste generated in the campus is very less in quantity. Administration conducts the awareness programmes regarding E-waste Management with the help of various departments. The E-waste and defective item from computer laboratory is being stored properly.

b) Recommendations:

- Recycle or safely dispose of white goods, computers and electrical appliances.

- Use reusable resources and containers and avoid unnecessary packaging where possible.

- Always purchase recycled resources where these are both suitable and available. Suggested to contact approved E-waste management and disposal facility in order to dispose E-waste in scientific manner.

4. Green Area This includes the plants, greenery and sustainability of the campus to ensure that the buildings conform to green standards. This also helps in ensuring that the Environmental Policy is enacted, enforced and reviewed using various environmental awareness programmes.

a) Observations:

Campus is located in the vicinity of many trees (species) to maintain the bio-diversity. 50 saplings were planted in campus premises in last five year and survival rate is 20 not mentioned medicinalplants also not found proper documented plantation record.

c) Recommendations:

- Review periodically the list of trees planted in the garden, allot numbers to the trees and keep

records. Assign scientific names to the trees.

- Promote environmental awareness as a part of course work in various curricular areas, independent research projects, and community service.

- Create awareness of environmental sustainability and take actions to ensure environmental sustainability. Various tree plantation programs should be organize at college campus and surrounding villages through NSS (National Service Scheme) unit. This program helps in encouraging eco-friendly environment which provides pure oxygen within the institute and awareness among villagers.

- The plantation program includes various types of indigenous species of ornamental and medicinal wild plant species.

- Establish a College Environmental Committee that will hold responsibility for the enactment, enforcement and review of the Environmental Policy. The Environmental Committee shall be the source of advice and guidance to staff and students on how to implement this Policy.

- Ensure that an audit is conducted annually and action is taken on the basis of audit report.

Special recommendation and finding-

Celebrate every year 5th June as 'Environment Day' and plant trees on this day by each and every semester as well as yearly mode students in a group to make the campus more Green. Indoor plantation to inculcate interest in students, Bonsai can planted in corridor to bond a relation with nature. Medicinal plant should be co relate with research and for further for farmers benefits through computer science department by software development. There should be significant environmental research by both faculty and students. The environmental awareness initiatives should be substantial. The installation of rain water harvesting system are noteworthy.

Air quality - Air quality should be monitor for healthy life of human as well as plant

a) Observation : No assessment done for that.

b) Recommendation : Collaborate with nearby(5-10 Km) Govt. Institution for monitoring like NIT and collectorate office for comparative monitoring time to time preferred once or twice in a month.

Animal Welfare

Monitoring indicate Need to be protect animal from pain, suffering, injury and disease,Need for a suitable environment, Need for a suitable **diet,** Need to exhibit normal behavior patterns.

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a) Observation: Institution has signed MOU with nearby doctor's clinic.

b) Recommendation- Sign MOU with some reputed animal house and contribute monthly /Annually for animal welfare like for their proper diet, suitable environment etc .

General Practice-

This indicators addressing primary caring of institution

a) Observation-

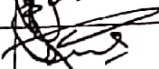Some lacunas were found as they moving in first audit so that they have not mentioned properly.

b) Recommendation

To prepare a summary report of all general practice and review to improve it and suggested to celebrate environmental day on 5 June.

Conclusion: Institution have done some initiatives and something need to be start, many things they have done out of paper work but not mentioned in report so suggested that and also given some new ideas for each aspects, overall team members were in cooperation with audit team.
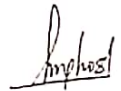

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AUDIT PARTICIPANTS

On behalf of Institute:

Name	Position/Department	Signature
Dr. Tapas Mukherjee	IQAC Coordinator	
Dr. Meena Chakraborty	NAAC Coordinator	
Dr. Samir Jaiswal	Asst. Prof. of Commerce	
Shri Anil Mishra	Office Head	
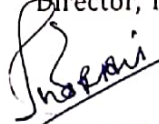
Audit Experts:

Name	Position	Signature
Dr. Amitabh Sharma	Technical Advisor and Member Sri Aurobindo Yoga and Knowledge Foundation Gram –Funda, Chhattisgarh, India	
Dr. S.M.Ghosh	Director , THE PROGRESS Sri Aurobindo Yoga and Knowledge Foundation Gram –Funda, Chhattisgarh, India	

Dr. S. M. Ghosh
Director, THE PROGRESS

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