GOVT. DEGREE COLLEGE (W) WANAPARTHY WANAPARTHY Dist. TELANGANA State

GREEN AUDIT PROFILE 2022-23





Protocols used for Environmental Audit

Office of the Principal Govt. Degree College (Women) Wanaparthy

CIRCULAR

Date: 05-10-2022

As per the Commissioner of Collegiate Education, Nampally, Hyderabad instructions, the following members of the staff are hereby made members of the Green Audit Committee in the college. They are requested to note the same. After completion of work all the Conveners should submit the report along with list to chairman S. Suresh Principal.

Committee:

Chairman: S. Suresh Principal.

Co-Ordinator: K. Govardhan, Lecturer in Botany

Convener: Dr. K. Jagadeeswaraiah, Lecturer in Chemistry

Members:

G. Vishnumurthy, Lecturer in Physics

Dr. K. Damodar Reddy, Lecturer in Chemistry

G. Sravanthi, Lecturer in Zoology

P. Srinivas, Lecturer in History

Govt Degree College For Work
WANAPARTHY Dist.-509 103.

SI. No.	Name of the Official	Department	Signature
1	Special invitee Dr. N. Srinivas	Principal Govt. Degree College (Co-Ed) Wanaparthy	Go Control (Men) WANAPARTHY-509 103.
2	G. Vani Kuman	Forest Range Officer, Wanaparthy	Forest Range Officer Wanaparthy.
3	Dr. mm manjuss	Medical and Health Department Wanaparthy	Plue. MEDICAL OFFICER. PHC-KOTHAKOTA

COMMISSIONERAT	E OF COLLEGIAT	E EDUCATION			
TELANGANA: HYDERABAD					
PROFORM	1A FOR GREEN A	UDIT			
С	ollege Profile				
Name of the College: GOVERNMENT DEGREE COLLEGE FOR WOMEN, WANAPARTHY			1EN,		
Address:	NANDI HILLS NEW GUNJ ROAD WANAPARTHY - 5091 TELANGANA STATE			509103	
Contact Info:	Principal S. Suresh, 08545-232742, 9440788307				
Campus Area		6.25 Acres	5		
Built-up Area		2540 sq.mt	s.		
Is the building has ventilators for natural air flow in all rooms:		Yes			
The student and f	aculty strength o	of the college:			
Strength	Male	Female	Total		
No of students		1247	1247		
No of Teaching Staff	20	12	32		
No of Non-Teaching staff	10	8	18		

Physical Structure			
The available land of the college: 6.25 acres and 250	Guntas. The built-up area of the college: 2	540 Sq. Ft	
No. of Class Rooms		21	
No. of Laboratories		8	
No. of Conference halls		1	
Library Halls		1	
Auditorium		1	
Canteen		1	
Any other (please specify)			

Sl.No	AUDITING FOR WATER MANAGEMENT (Questionnaire)	
1	List out uses of water in your college.	
2	What are the sources of water in your college?	Borwell and Municipal
3	How many wells are there in your college?	2
4	No. of motors used for pumping water from each well?	2
5	What is the total horse power of each motor?	1.5 HP
6	What is the depth of each well?	300 feet
7	What is the present depth of water in each well?	250 feet
8	How does your college store water?	Tanks
9	Quantity of water stored in your overhead water tank? (In liters)	2000 lit
10	Quantity of water pumped every day? (In liters)	1000 lit
11	If there is water wastage, specify why.	Nil
12	How can the wastage be prevented / stopped?	Yes
13	Locate the point of entry of water and point of exit of waste water in your college	
14	Where does waste water come from?	
15	Where does the waste water go?	Drainage
16	What are the uses of waste water in your college?	Drainage
17	What happens to the water used in your labs? Whether it gets mixed with ground water?	No
18	Is there any treatment for the lab water?	Yes
19	Whether green chemistry methods are practiced in your labs?	Yes
20	Write down four ways that could reduce the amount of water used in your college.	
21	Record water use from the college water meter for six months.	No
22	Bimonthly water charges paid to water connections if any	No
23	No. of water coolers. Amount of water used per day? (in liters)	Nil
24	No. of water taps. Amount of water used per day?	5
25	No. of bath rooms in staff rooms, common, hostels. Amount of water used per day?	6

26	No. of toilet, urinals. Amount of water used per day?	5
27	No. of water taps in the canteen. Amount of water used per day?	Nil
28	Amount of water used per day for garden use.	
29	No. of water taps in laboratories. Amount of water used per day in each lab?	16
30	Total use of water in each hostel?	Nil
31	At the end of the period, compile a table to show how many liters of water have been	
31	used in the college for each purpose	
32	Is there any water used for agricultural purposes?	
33	Does your college harvest rain water?	Yes
34	If yes, how many rain water harvesting units are there? (Approx. amount)	1 unit
35	How many of the taps are leaky? Amount of water lost per day?	Nil
36	Are there signs reminding people to turn off the water? Yes / No	Yes
37	Is there any waterless toilets?	Nil
38	How many water fountains are there?	1
39	How many water fountains are leaky?	Nil
40	Is drip irrigation used to water plants outside? YES/NO	No
41	How often is the garden watered?	
42	Quantity of water used to watering the ground?	1000 Lits
43	Quantity of water used for bus cleaning? (Liters per day)	Nil
44	Amount of water for other uses? (Items not mentioned above)	Nil
45	Area of the college land without tree/building canopy.	3000 sq.mts.
46	Is there any water management plan in the college?	
47	Are there any water saving techniques followed in your college? What are they?	
48	Please share Some IDEA for how your college could save more water.	

Sl. No	AUDITING FOR ENERGY MANAGEMENT	
1	List ways that you use energy in your college. (Electricity, electric stove, kettle, microwave, LPG, firewood, Petrol, diesel and others).	Electricity
2	Electricity bill amount for the last year	1.75 lac
3	Amount paid for LPG cylinders for last one year	Nil
4	Weight of firewood used per month and amount of money spent? Also mention the amount spent for petrol/diesel/ others for generators?	Nil
5	Are there any energy saving methods employed in your college? If yes, please specify. If no, suggest some.	Nil
6	How much money does your college spend on energy such as electricity, gas, firewood, etc. in a month?	Nil
7	How many CFL bulbs has your college installed? Mention use (Hours used/day for how many days in a month)	Nil

How many LED Tube are used in your college? Mention the use (Hours used/day for how many days in a month) Energy used by each Tube per month? (kWh). How many Tube are used in your college? Mention the use (Hours used/day for how many days in a month)	75 4
How many Tube are used in your college? Mention the use (Hours used/day for how	
	25
12 Energy used by each Tube per month? (kWh).	5.7
How many incandescent (tungsten) bulbs have your college installed? Mentions use (Hours used/day for how many days in a month)	Nil
14 Energy used by each bulb per month? (kWh).	Nil
How many fans are installed in your college? Mention use (Hours used/day for how many days in a month)	84
16 Energy used by each fan per month? (kWh).	9
How many air conditioners are installed in your college? Mention use (Hours used/day, for how many days in a month)	Nil
18 Energy used by each air conditioner per month? (kWh).	Nil
How many electrical equipment including weighing balance are installed your college? Mention the use (Hours used/day for how many days in a month)	Nil
20 Energy used by each electrical equipment per month? (kWh).	Nil
How many computers are there in your college? Mention the use (Hours used/day for how many days in a month)	55
22 Energy used by each computer per month? (kWh).	37.5
How many photocopiers are installed by your college? Mention use (Hours used/day for how many days in a month).	Nil
How many cooling apparatus are in installed in your college? Mention use (Hours used/day for how many days in a month)	Nil
Energy used by each cooling apparatus per month? (kWh) Mention use (Hours used/day for how many days in a month)	Nil
Energy used by each photocopier per month? (Kwh) Mention the use (Hours used/day for how many days in a month)	Nil
how many inverters your college installed? Mentions use (Hours used/day for how many days in a month)	3
28 Energy used by each inverter per month? (kWh).	150
How many electrical equipment are used in different labs of your college? Mention the use (Hours used/day for how many days in a month)	10
30 Energy used by each equipment per month? (kWh)	
How many heaters are used in the canteen of your college? Mention the use (Hours used/day for how many days in a month)	Nil

32	Energy used by each heater per month? (kWh)	Nil
33	No of street lights in your college?	5
34	Energy used by each street light per month? (kWh)	1.35
35	No of TV in your college and hostels?	1
36	Energy used by each TV per month? (kWh)	Nil
37	Any other item that uses energy (Please write the energy used per month) Mention the use (Hours used/day for how many days in a month)	Nil
38	Are any alternative energy sources/nonconventional energy sources employed / installed in your college? (Photovoltaic cells for solar energy, windmill, energy efficient stoves, etc) Specify.	Nil
39	Do you run "switch off" drills at college?	Nil
40	Are your computers and other equipment put on power-saving mode?	Yes
41	Does your machinery (TV, AC, Computer, weighing balance, printers, etc.) run on standby mode most of the time? If yes, how many hours?	Yes, 6 hours
42	What are the energy conservation methods adapted by your college?	No
43	How many boards displayed for saving energy awareness?	No
44	How much ash is collected after burning fire wood per day in the canteen?	Nil
45	Write a note on the methods/practices/adaptations by which you can reduce the energy use in your college campus in future. Calculation of energy for electrical appliances Appliance Power used in (watt) Usage per day (hours) Number of appliances Average kWh per day (Watt X hours X Number X 1000) Average kWh per month (Watt X hours X Number X 1000 x 30) Incandescent bulb 60 watt CFL 18 W Microwave 1000W Stove 3000W Kettle 2500W	Solar System

SI. No	Electrical appliances / Instruments	Number	Power (W)/ Unit	Total power (W)	kW/hr	No. of days	Total consumption per month	Energy used by each One
1	LED TUBE	75	20	1500	9	25	225	3
2	TUBE	25	38	950	5.7	25	142.5	5.7
3	FANS	84	60	5040	30.24	25	756	9
4	COMPUTERS	55	250	13750	27.5	25	687.5	12.5
5	INVERTERS/ UPS	3	1000	3000	18	25	450	150
6	STREET LIGHT	5	9	45	0.27	25	6.75	1.35
7	PROJECTOR	10	280	2800	11.2	25	280	28
8	PRINTERS	6	60	360	1.44	25	36	6
9	PHOTOCOPIER	1	650	650	3.9	25	97.5	97.5
10	SCANNER	2	50	100	0.4	25	10	5
11	CC Camera Setup	16	16	256	1.536	30	46.08	2.88
12	Motors	2	373	746	0.746	25	18.65	9.325

Sl. No	AUDITING FOR WASTE MANAGEMENT	
1	What is the total strength of students, teachers and Non-teaching staff in your College?	1297
2	No. of Students; No. of Teachers; No. Non-teaching staff; Gents - Ladies Total	
3		
4	Which of the following are available in your College?	Urban
5	Give area occupied, Garden area and Garbage dump (number)	1
6	Playground area, Laboratory, Kitchen, Canteen, Toilets (number) Car/scooter shed area	4
7	Number of class rooms, Office rooms and others (specify)	23
8	Which of the following are found near your college? Mark the level of disturbance it creates for the college in a scale of 1 to 9.	
9	Municipal dump yard	Yes
10	Garbage heap	
11	Public convenience Sewer line	
12	Stagnant water	
13	Open drainage Industry – (Mention the type)	
14	Bus / Railway station Market / shopping complex / public halls	
15	WASTE	
16	Does your college generate any waste? If so, what are they?	
17	How much quantity?	
18	Number or weight E-waste Hazardous waste (toxic)	
19	Solid waste	
20	Dry leaves	
21	Canteen waste	
22	Liquid waste	
23	Glass	
24	Unused equipment	
25	Medical waste if any	
26	Napkins Others (Specify)	
27	Is there any waste treatment system in the college?	
28	Is there any treatment for toilet/urinal/sanitary napkin waste?	

Sl. No	WASTE	
1	Does your college generate any waste? If so, what are they?	Yes
2	How much quantity?	
3	Number or weight E-waste Hazardous waste (toxic)	Yes
4	Solid waste	Yes
5	Dry leaves	Yes
6	Canteen waste	No
7	Liquid waste	Yes
8	Glass	Yes
9	Unused equipment	Yes

10	Medical waste if any	Nil
11	Napkins Others (Specify)	Nil
12	Is there any waste treatment system in the college?	No
13	Is there any treatment for toilet/urinal/sanitary napkin waste?	No
14	What is the approximate quantity of waste generated per day? (in Kilograms) Office Laboratories Canteen/kitchen	Nil
15	Why waste is a problem?	
16	Whether waste is polluting ground/surface water? How?	
17	Whether waste is polluting the air of the college? How?	
18	How is the waste generated in the college managed?	
19	Methods 1 Composting 2 Recycling 3 Reusing 4 Others (specify)	
20	How many separate boxes do you think you would need to put into a classroom to start a waste segregation and recycling campaign?	
21	What should be the use for each box? (Develop a Colour code with reasons)	
22	Do you use recycled paper in College?	
23	Is there any waste wealth program practiced in the college?	Yes
24	Approx. Bio degradable Non-Bio degradable Hazardous Others < 1 kg. 2 - 10 kg. > 10 kg.	Nil
25	Approx. Bio degradable Non-Bio degradable Hazardous Others < 1 kg. 2 - 10 kg. > 10 kg.	
26	Approx. Bio degradable Non-Bio degradable Hazardous Others < 1 kg. 2 - 10 kg. > 10 kg.	
27	How would you spread the message of recycling to others in the community? Have you taken any initiatives? If yes, please specify.	
28	Can you achieve zero garbage in your college? (Reduce, Recycle, Reuse, Refuse) If yes, how?	

Sl. No	AUDITING FOR GREEN CAMPUS MANAGEMENT	
1	Is there a garden in your college? Area?	Yes
2	Do students spend time in the garden?	Yes
3	List the plants in the garden, with approx. numbers of each species.	528
4	Suggest plants for your campus. (Trees, vegetables, herbs, etc.)	Trees
5	List the species planted by the students, with numbers.	122
6	Whether you have displayed scientific names of the trees in the campus?	Yes
7	Is there any plantations in your campus? If yes specify area and type of plantation.	yes
8	Is there any vegetable garden in your college? If yes how much area?	No
9	Is there any medicinal garden in your college? If yes how much area?	Yes

10	What are the vegetables cultivated in your vegetable garden? (Mention the quantity of harvest in each season)	
11	How much water is used in the vegetable garden and other gardens? (Mention the source and quantity of water used).	
12	Who is in charge of gardens in your college?	Dept. of Botany
13	Are you using any type of recycled water in your garden?	Yes
14	List the name and quantity of pesticides and fertilizers used in your gardens?	Yes
15	Whether you are doing organic farming in your college? How?	Yes
16	Do you have any composting pit in your college? If yes, what are you doing with the compost generated?	
17	What do you doing with the vegetables harvested? Do you have any student market?	
18	Is there any botanical garden in your campus? If yes give the details of campus flora.	Yes
19	Give the number and names of the medicinal plants in your college campus.	32
20	Any threatened plant species planted/conserved?	No
21	Is there a nature club in your college? If yes what are their activities?	Yes
22	Is there any arboretum in your college? If yes details of the trees planted.	No
23	Is there any fruit yielding plants in your college? If yes details of the trees planted.	Nil
24	Is there any groves in your college? If yes details of the trees planted.	No
25	Is there any irrigation system in your college?	No
26	What is the type of vegetation in the surrounding area of the college?	
27	What are the nature awareness programmes conducted in the campus?	
28	What is the involvement of students in the green cover maintenance?	
29	What is the total area of the campus under tree cover? Or under tree canopy?	_
30	Share your IDEAS for further improvement of green cover.	

Sl. No	AUDITING FOR CARBON FOOTPRINT	
1	What is the total strength of students and teachers in your College? No. of Students No. of Teachers No. of Non-teaching staff Gents Ladies Total	1297
2	Total Number of vehicles used by the stakeholders of the college. (per day)	Nil
3	No. of cycles used	Nil
4	No. of two wheelers used (average distance travelled and quantity of fuel and amount used per day)	Nil
5	No. of cars used (average distance travelled and quantity of fuel and amount used per day)	Nil
6	No. persons using common (public) transportation (average distance travelled and quantity of fuel and amount used per day)	Nil

7	No. of persons using college conveyance by the students, non-teaching staff and teachers (average distance travelled and quantity of fuel and amount used per day)			
8	Number of parent-teacher meetings in a year? Parents turned up (approx.)			
9	Number of visitors with vehicles per day?		Nil	
10	Number of generators used per day (hours). Give the amount of fue	l used per day.	Nil	
11	Number of LPG cylinders used in the canteen (Give the amount of fuel used per day and amount spent).			
12	Quantity of kerosene used in the canteen/labs (Give the amount of f amount spent).	uel used per day and	Nil	
13	Amount of taxi/auto charges paid and the amount of fuel used per month for the transportation of vegetables and other materials to canteen.			
14	Amount of taxi/auto charges paid per month for the transportation of office goods to the college.			
15	Average amount of taxi/auto charges paid per month by the stakeholders of the college.			
16	Use of any other fossil fuels in the college (Give the amount of fuel used per day and amount spent).			
17	Suggest the methods to reduce the quantity of use of fuel used by the stakeholders/students/teachers/non-teaching staff of the college.			
18	Are the Rooms in Campus are Well Ventilated? Yes/No		Yes	
19	Window Floor ratio of the Rooms Good/Not Enough		Good	
Sl. No	PARAMETERS	Response	Remarks	
1	Source of water	Borwell and Municipal		
2	No. of Wells	2		
3	No. of motors used	2		
4	Horse power – Motor	1.5 HP		
5	Depth of well –Total	300 feet		
6	Water level	250 feet		
7	Number of water tanks	5		
8	Capacity of tank	1000 lit		
9	Quantity of water pumped every day	3000 lit		
10	Any water wastage/why?	No		
11	Water usage for gardening	Yes		
12	Waste water sources	Toilets		
13	Use of waste water	No		
14	Faith of waste water from labs			
15	Whether waste water from labs mixed with ground water	No		

16	Any treatment for lab water	No	
17	Whether any green chemistry method practiced in labs	Yes	
18	No. of water coolers	Nil	
19	Rain water harvest available?	yes	
20	No. of units and amount of water harvested	1	
21	Any leaky taps	No	
22	Amount of water lost per day	Nil	
23	Any water management plan used?	Yes	
24	Any water saving techniques followed?	Yes	
25	Are there any signs reminding peoples to turn off the water?	Yes	

Results of water quality			
Parameters	Bore Well water	Municipal Tap water	Standard value (BIS)
Dissolved Oxygen (mg/l)	3.5	5.7	6 to 8
Acidity (mg/l)			200
Alkalinity (mg/l)	185	136	200
Chloride (mg/l)	63.5	40	250
Hardness (Total)	237	140	200
Conductivity (µs)	410	395	
P ^H	6.7	7.31	6.5 - 8.5
Total Dissolved Solids (ppm)	688	289	500
Salinity (ppt)			
Total coliform	Absent	Absent	0
Fecal coliform	Absent	Absent	0

Air quality Determination Air Quality Index (parameters studied/recorded/ Seasonal)			
NO			
O ₃	66.72 μg/m³		
PM2.5	35 μg/m³		
PM10	51 μg/m³		
СО	9 μg/m³		
Humidity	33%		
Barometric Pressure	1012 hpa		
Wind Speed	8.41 m/s		
Wind Direction	287 degree		
Sun Rise	6.41 am		
Sun Set	6.22 pm		

Types of Waste	Particulars	
E-waste	Computers, Electrical and Electronic parts	
Hazardous waste	Labs	
Solid waste	Damaged furniture, Paper, Food waste	
Dry leaves	Tree leaves	
Liquid waste	washing, Bathrooms, laboratory	
Glass Broken glass from laboratory		
Unused Equipment	Laboratory Equipment	











PRINCIPAL

Govt. Degree College For Women WANAPARTHY Dist.-509 103.

GRADING FOR ENVIRONMENTAL AUDIT REPORT

S. No	COMPONENTS FOR ASSESSMENT	MARKS		GRADES
1	Energy audit	20	19	
2	Waste audit	15	14	
3	Water audit	15	10	
4	Landscape or Environment audit	15	6	
5	Carbon footprint & Oxygen emission audit	15	6	B ⁺
6	Green activities (conduction of seminars /conferences/workshops/student competitions/awareness programmes/observation of environmental related days etc.	10	9	
7	Student clubs (Environmental club/Green club/Nature club/Biodiversity club/ ECO Club/Friends and Fauna Club/Science club etc.) activity annual report	10	8	
	Total	100	72	

Principal PRINCIPAL
Govt Degree College For Work
WANAPARTHY Dist-509 103.