COMMISSIONER OF COLLEGIATE EDUCATION
TELANGANA:HYDERABAD

PROFORMA FOR GREEN AUDIT

College Profile

Name of the College:: **GOVT. DEGREE COLLEGE, MADHIRA, Khammam District**

Address: **OPP FIRESTATION, WYRA ROAD, MADHIRA**

Contact Info **:9490375068**
Campus Area :**05.33 Acres**
Built-up Area : **2026.28 sq.ft**

Is the building has ventilators for natural air flow in all rooms: Yes/No: **Yes**

The student and faculty strength of the college:

Strength	Male	Female	Total
No of students	**124**	**37**	**161**
No of Teaching Staff	**05**	**03**	**08**
No of Non-Teaching staff	**04**	**02**	**06**

Physical Structure

The available land of the college:**05. 33 acres** and ----- Guntas.
The built-up area of the college: **2026.28 Sq.Ft.**

No. of Class Rooms	**07**
No. of Laboratories	**Nil**
No. of Conference halls	**01**
Library Halls	**01**
Auditorium	**Nil**
Canteen	**Nil**
Any other (please specify)	**Nil**

Objectives :	• Environmental risk assessment including compliance to regulations, soil, water, solid and E-Wastes, emissions, hazardous products & noise pollution. • Waste minimization and environmental pollution control plans. • The optimal utilization of energy, water and other natural resources. • Recycling programs and product life cycle considerations. • Emergency response plans and procedures.
Prepared by:	1. Sri.K.Ravikumar, Asst. Professor of English. 2. Smt. G.Aruna, Asst. Professor of Economics. 3. Smt. S. Indira, Lecturer in Telugu.
Approved by:	**1. Sri. ALN Sastry, Principal (FAC)** **2. Dr.G.Padmavathi, Principal GDC(W)-Khammam** **3. Sri.K.Ravikumar, Asst. Professor of English.** **4. Smt. G.Aruna, Asst. Professor of Economics.** **5. Smt. S. Indira, Lecturer in Telugu.**
Remarks :	

FORMS AND SUPPORT MATERIAL	
Questionnaire Document ref. name/no.:	File. No. CCE-AC/QLTY/NAAC/1/2021- ACADEMIC CELL Dt.26.07.2021.
Checklist for Environmental Audit Document ref. name/no.:	File. No. CCE-AC/QLTY/NAAC/1/2021- ACADEMIC CELL Dt.26.07.2021.
Additional forms and support material:	-

AUDITING FOR WATER MANAGEMENT:

1. List out uses of water in your college:
   a) **For use in Students and Staff Toilets**
   b) **. b) For Drinking**

2. What are the sources of water in your college:: **Municipal Connection**
3. How many wells are there in your college: **Nil**

4. No. of motors used for pumping water from each well: **Nil**

5. What is the total horse power of each motor: **Nil**

6. What is the depth of each well: **Nil**

7. What is the present depth of water in each well: **Nil**

8. How does your college store water: **Overhead Tank**

9. Quantity of water stored in your overhead water tank? (In liters): **300 liters**

10. Quantity of water pumped every day? (In liters): **200 liters**

11. If there is water wastage, specify why: **NO**

12. How can the wastage be prevented / stopped: **No Wastage**

13. Locate the point of entry of water and point of exit of waste water in your College:

Entry of Water : North -East Side, Exit of waste water : In toilets & Wash Areas

14. Where does waste water come from :**From toilets & Wash areas**

15. Where does the waste water go : **Underground Drainage**

16. What are the uses of waste water in your college :**NIL**

17. What happens to the water used in your labs? Whether it gets mixed with ground water:: **No Labs**

18. Is there any treatment for the lab water :**NA**

19. Whether green chemistry methods are practiced in your labs :**NA**

20. Write down four ways that could reduce the amount of water used in your College :**Only Min Quantity of water is used.**
21. Record water use from the college water meter for six months: ___
22. Bi monthly water charges paid to water connections if any. :NIL
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 : **03 water taps, 150 Liters per day**
25. No. of bath rooms in staff rooms, common, hostels. Amount of water used per Day: **NIL**

26. No. of toilet, urinals Amount of water used per day**?** **: 04 (40 Liters)**

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 : **NIL**

29. No. of water taps in laboratories. Amount of water used per day in each lab: **NIL**

30. Total use of water in each hostel : **No Hostels**
31. At the end of the period, compile a table to show how many liters of water have been used in the college for each purpose:
32. Is there any water used for agricultural purposes : **NO**

33. Does your college harvest rain water : **NO**

34. If yes, how many rain water harvesting units are there? (Approx. amount): **NA**

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 : **NO**

37. Is there any waterless toilets : **NO**

38. How many water fountains are there: **Nil**

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: **NA.**

42. Quantity of water used to watering the ground: **20 Liters**

43. Quantity of water used for bus cleaning? (Liters per day): **NA**

44. Amount of water for other uses? (Items not mentioned above): **Nil**

45. Area of the college land without tree/building canopy: **3.00 Acres**

46. Is there any water management plan in the college: **No**

47. Are there any water saving techniques followed in your college? What are they: :: **YES. Closing of Valves.**

48. Please share Some IDEA for how your college could save more water. Bringing Enlightenment among the students to save water- **Nil**

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**: Rs. 18000/- p.a**

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**:: Introduction of LED BULBS & Energy Saving Fans.**

6. How much money does your college spend on energy such as electricity, gas, firewood, etc. in a month**: Rs.1500/-P.M**

7. How many CFL bulbs has your college installed? Mention use (Hours used/day for how many days in a month): **03 (Proposed)**

8. Energy used by each bulb per month? (For example- 60 watt bulb x 4hours x number of bulbs = Kwh): **NA**

9. How many LED bulbs are used in your college? Mention the use (Hours used/day for how many days in a month): **NA**

10. Energy used by each bulb per month (kWh): **NA**

11. How many incandescent (tungsten) bulbs have your college installed? Mentions use (Hours used/day for how many days in a month): **Nil**

12. Energy used by each bulb per month? (KWh): **NA**

13. How many fans are installed in your college? Mention use (Hours used/day for how many days in a month) : **40 Fans – for use in class rooms library and administrative block-7 hrs per day and 24 Days in a month**

14. Energy used by each fan per month? (KWh): **3 KWH**

15. How many air conditioners are installed in your college? Mention use (Hours used/day, for how many days in a month) : **Nil**

16. Energy used by each air conditioner per month(KWh): **NA**

17. 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**

18. Energy used by each electrical equipment per month(kWh): **NA**

19. How many computers are there in your college? Mention the use (Hours used/day for how many days in a month) : **10 (24 Days in Month)**

20. Energy used by each computer per month? (kWh): **1/2 KWH**

21. How many photocopiers are installed by your college? Mention use (Hours used/day for how many days in a month):**Nil**

22. How many cooling apparatus are in installed in your college? Mention use (Hours used/day for how many days in a month) : **Nil**

23. Energy used by each cooling apparatus per month? (kWh) Mention use (Hours used/day for how many days in a month) : **NA**

24. Energy used by each photocopier per month? (Kwh) Mention the use (Hours used/day for how many days in a month) how many inverters your college installed? Mentions use (Hours used/day for how many days in a month): **NA**

25. Energy used by each inverter per month? (kWh): **2KWH**

26. 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) : **NIL**

27. Energy used by each equipment per month? (kWh): **NA**

28. 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**

29. Energy used by each heater per month? (kWh): **NA**

30. No of street lights in your college: **01**

31. Energy used by each street light per month? (kWh): **½ KWH**

32. No of TV in your college and hostels: **NIL**

33. Energy used by each TV per month? (kWh): **NA**

34. 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): **NO**

35. Are any alternative energy sources/nonconventional energy sources employed / installed in your college? (Photovoltaic cells for solar energy, windmill, energy efficient stoves, etc..) Specify: **NO**

36. Do you run "switch off" drills at college: **YES**

37. Are your computers and other equipment put on power-saving mode: **Yes**

38. Does your machinery (TV, AC, Computer, weighing balance, printers, etc.) run on standby mode most of the time? If yes, how many hours: **No**

39. What are the energy conservation methods adapted by your college: **Introduction of of LED Bulbs**.

40. How many boards displayed for saving energy awareness: **NIL**

41. How much ash is collected after burning fire wood per day in the canteen**: Nil**

42. Write a note on the methods/practices/adaptations by which you can reduce the energy use in your college campus in future. **:--------**

AUDITING FOR WASTE MANAGEMENT

What is the total strength of students, teachers and Non-teaching staff in your College?

No. of Students: **161**

No. of Teachers: **08**

No. Non-teaching staff**: 06**

Gents: **133**

Ladies: **42**

Total:**175**

Which of the following are available in your College?

Give area occupied, Garden area and Garbage dump (number): **05.33 Acres**

Playground area: **3 acres**

Laboratory: **Nil**

Kitchen: **Nil**

Canteen: **Nil**

Toilets (number): **03**

Car/scooter shed area: **Nil**

Number of class rooms, Office rooms and others (specify):

Class Rooms	**::07**
Library	**::01**
Mana TV	**::01**
Virtual Class Room	**::0**
Conference & Digital Class	**::01**

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.

Municipal dump yard: **No**

Garbage heap: **No**

Public convenience Sewer line: **No**

Stagnant water: **No**

Open drainage Industry – (Mention the type): **No**

Bus / Railway station Market / shopping complex / public halls: **No WASTE**

Does your college generate any waste? If so, what are they: NO

How much quantity: **No**

Number or weight E-waste Hazardous waste (toxic): **NO**

Solid waste: **No**

Dry leaves: **No**

Canteen waste: **No**

Liquid waste: **No**

Glass: **No**

Unused equipment: **No**

Medical waste if any: **No**

Napkins Others (Specify): **No**

Is there any waste treatment system in the college: **No**

Is there any treatment for toilet/urinal/sanitary napkin waste: **No**

1 What is the approximate quantity of waste generated per day? (in Kilograms) Office Laboratories Canteen/kitchen: **NA**

2 Why waste is a problem: **NA**

3 Whether waste is polluting ground/surface water? How: **No**

4 Whether waste is polluting the air of the college? How: **No**

5 How is the waste generated in the college managed : **No Waste Greneration**
Methods 1 Composting 2 Recycling 3 Reusing 4 Others (specify)

6 How many separate boxes do you think you would need to put into a classroom to start a waste segregation and recycling campaign: **:----------**

What should be the use for each box? (Develop a Colour code with reasons):

7 Do you use recycled paper in College: **No**

8 Is there any waste wealth program practiced in the college: **No**

Approx. Bio degradable Non-Bio degradable Hazardous Others < 1 kg. 2 - 10 kg. > 10 kg.

Approx. Bio degradable Non-Bio degradable Hazardous Others < 1 kg. 2 - 10 kg. > 10 kg.

Approx. Bio degradable Non-Bio degradable Hazardous Others < 1 kg. 2 - 10 kg. > 10 kg.

9 How would you spread the message of recycling to others in the community? Have you taken any initiatives? If yes, please specify:

10 Can you achieve zero garbage in your college? (Reduce, Recycle, Reuse, Refuse) If yes, how:

AUDITING FOR GREEN CAMPUS MANAGEMENT

1. Is there a garden in your college? Area: **No**

2. Do students spend time in the garden: **NA**

3. List the plants in the garden, with approx. numbers of each species: **NA**
4. Suggest plants for your campus. (Trees, vegetables, herbs, etc.): **HERBS**

5. List the species planted by the students, with numbers: **NO**
6. Whether you have displayed scientific names of the trees in the campus: **NO**

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: **No**

10. What are the vegetables cultivated in your vegetable garden? (Mention the quantity of harvest in each season): **NA**

11. How much water is used in the vegetable garden and other gardens? (Mention the source and quantity of water used):**NA**

12. Who is in charge of gardens in your college: **NA**

13. Are you using any type of recycled water in your garden: **NA**

14. List the name and quantity of pesticides and fertilizers used in your gardens: **NA**

15. Whether you are doing organic farming in your college? How: **NO**

16. Do you have any composting pit in your college? If yes, what are you doing with the compost generated: **NO.**

17. What do you doing with the vegetables harvested? Do you have any student market: **NA**

18. Is there any botanical garden in your campus? If yes give the details of campus flora: **NO**

19. Give the number and names of the medicinal plants in your college campus: **NA**

20. Any threatened plant species planted/conserved: **NA**

21. Is there a nature club in your college? If yes what are their activities: **NO**

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: **NO**

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: **Vegetable farms**

27. What are the nature awareness programmes conducted in the campus: **YES**

28. What is the involvement of students in the green cover maintenance: **YES**

29. What is the total area of the campus under tree cover? Or under tree canopy: **2 Acres**

30. Share your IDEAS for further improvement of green cover

AUDITING FOR CARBON FOOTPRINT:

1) What is the total strength of students and teachers in your College:
No. of Students: **161**
No. of Teachers: **08**
No. of Non-teaching staff: **06**
Gents: **133**
Ladies: **42**
Total: **175**

2. Total Number of vehicles used by the stakeholders of the college. (Per day): **08**

3. No. of cycles Used: **10**

4. No. of two wheelers used (average distance travelled and quantity of fuel and amount used per day): **08**

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): **04**

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): **Nil**

8. Number of parent-teacher meetings in a year? Parents turned up (approx.): **01**

9. Number of visitors with vehicles per day: **06**

10. Number of generators used per day (hours). Give the amount of fuel used per day: **Nil**

11. Number of LPG cylinders used in the canteen (Give the amount of fuel used per day and amount spent): **Nil**

12. Quantity of kerosene used in the canteen/labs (Give the amount of fuel used per day and amount spent): **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: **Nil**

14. Amount of taxi/auto charges paid per month for the transportation of office goods to the college: **Nil**

15. Average amount of taxi/auto charges paid per month by the stakeholders of the college: **Nil**

16. Use of any other fossil fuels in the college (Give the amount of fuel used per day and amount spent): **No**

17. Suggest the methods to reduce the quantity of use of fuel used by the stakeholders/students/teachers/non-teaching staff of the college: **Nil**

18. Are the Rooms in Campus are Well Ventilated? Yes/No: **Yes**

19. Window Floor ratio of the Rooms Good/Not Enough: **Good**

WATER MANAGEMENT

SL NO	PARAMETERS	Response	Remarks
1	Source of water	**Municipal Connection**	
2	No. of Wells	Nil	
3	No. of motors used	01	
4	Horse power – Motor	3 HP	
5	Depth of well –Total	150FT	
6	Water level	50FT	
7	Number of water tanks	01	
8	Capacity of tank	300 Liter	
9	Quantity of water pumped every day	200 Liter	
10	Any water wastage/why?	No	
11	Water usage for gardening	NO	
12	Waste water sources	NO	
13	Use of waste water	NO	
14	Faith of waste water from labs	NA	
15	Whether waste water from labs mixed with ground water	NA	
16	Any treatment for lab water	NA	

17	Whether any green chemistry method practiced in labs	Nil	
18	No. of water coolers	Nil	
19	Rain water harvest available?	NO	
20	No. of units and amount of water harvested	NA	
21	Any leaky taps	NO	
22	Amount of water lost per day	Nil	
23	Any water management plan used?	NO	
24	Any water saving techniques followed?	NO	
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)	6	-	6-8
Acidity (mg/l)	-	-	200
Alkalinity (mg/l)	64	-	200
Chloride (mg/l)	120	-	250
Hardness (Total)	126	-	200
Conductivity (µs)	390	-	
Ph.	7.1	-	6.5-8.5
Total Dissolved Solids (ppm)	150	-	500
Salinity (ppt)	-	-	
Total coliform	-	-	0
Fecal coliform	-	-	0

Water Quality analysis (Biological) report of college – II
(with Photographic evidence)

S.No	Parameter/ WHO permissible level	Zooplankton (No of Samples/Sites)	Methodology
1	Protozoan (Ciliates)	-	-
2	Rotifers	-	-
3	Ostracods	-	-
4	Insect Larvae	-	-
5	Water Fleas	-	-
6	Bivalves	-	-
7	Snails	-	-
8	Mussels	-	-
9	Any Other (Specify)	-	-

Water Quality analysis
(Biological) report of college – II
(With Photographic evidence):

No Water body is present in the college.

S.No	Phytoplanktons	Scientific Name and number	Methodology
1	Diatoms (Bacillariophyceae)	-	-
2	Dinoflagellates (Dinophyceae)	-	-
3	Coccolithophores (Prymnesiophyceae)	-	-
4	Green algae (Chlorophyceae)	-	-
5	Cyanobacteria (earlier Blue-green algae)	-	-
6	Others (specify)	-	-

1. ENERGY AUDIT

Sl. No	Electrical appliances /instruments	Number	Power (W)/ unit	Total power (W)	kW	Operation /day	kW/hr.	No.of days in month	Total consumption per month
1	Tubes	45	20	1280	1.28 kWh	2 hrs	1.28 kWh	26	33.2 kWh
2	Fans	40	60	3840	3.8 kWh	6 hrs	3.8 kWh	26	98.8 kWh
3	Computers	10	250	2500	2.5 kWh	6 hrs	0.4 kWh	26	10.8 kWh
4	Water bath	-	-	-	-	-	-	-	-
5	Centrifuge	-	-	-	-	-	-	-	-

2. Waste management: Nil

Approximate quantity of waste generated per day (in kg)

Office				
Approx.	Biodegradable	Non -Biodegradable	Hazardous	Others
<1Kg	-	-	-	-
2-10Kg	-	-	-	-
>10Kg	-	-	-	-

Laboratories				
Approx.	Biodegradable	Non - Biodegradable	Hazardous	Others
<1Kg	-	-	-	-
2-10Kg	-	-	-	-
>10Kg	-	-	-	-

Canteen/kitchen		**Nil**		
Approx.	Biodegradable	Non - biodegradable	Hazardous	Others
<1Kg	-	-	-	-

2-10Kg	-	-	-	-
>10Kg	-	-	-	-

How the waste generated in the college is managed?

A)Composting/ Vermicomposting	Yes	Composting dry leaves and branches.
B)Recycling	Yes	-
C)Reusing	Yes	-
D)Other ways	-	-

Waste generated in the college?

E-waste		**No**
Hazardous waste	-	-
Solid waste	-	-
Dry leaves	-	-
Canteen waste	-	-
Liquid waste	-	-
Glass		-
Unused Equipment	-	-
Napkins		-
Others (specify)	-	

Do you use recycled paper in college?	No
Any waste management methods used?	No

Green Cover Management:

Plantation programs are being organized in the college premises by the students and the staff this results in creating Eco friendly environment in the premises and it is helpful in providing pure oxygen to the institute. In the plantation program various plants species like medicinal and ornamental plants are included.

Faunal diversity in college campus (with Photographic evidence):: ----

Air quality Determination:

Air Quality Index (parameters studied/recorded/ Seasonal):

NO_2	_ _ _
NO	_ _ _
O_3	_ _ _
PM2.5	_ _ _
PM10	_ _ _
CO	_ _ _
Humidity	_ _ _
Barometric Pressure	_ _ _
Wind Speed	_ _ _
Wind Direction	_ _ _
Sun Rise	_ _ _
Sun Set	_ _ _

Measurements of Noise level in and around the college

S.No	place (S)	Measurements (Duration in seconds)	Minimum (dBA)	Maximum (dBA)	Average (dBA)
1	Library	---	---	---	---
2	Canteen	---	---	---	---
3	Play ground	---	---	---	---
4	Auditorium	---	---	---	---
5	Science Block	---	---	---	---
6	Office	---	---	---	---

Conclusion:

Our college students and staff undertake activities to have the pollution free campus. We strongly believe that our efforts will be fruitful to have the eco-friendly green campus. We have the vision to plant the sapling every year. We have the mission to materialize such vision.


Government Degree College, Madhira, Khammam