



# COMMISSIONERATE OF COLLEGIATE EDUCATION GOVERNMENT OF TELANGANA





## CERTIFICATE (GREEN, ENERGY and ENVIRONMENT AUDIT)


This is to certify that Environmental, Energy and Green Audit has been conducted at the Government Degree College, Yellandu, Bhadrachal Kothagudem District by the Green Audit Committee of Telangana State Collegiate Education Department in collaboration with Department of Environmental Sciences of Osmania University, Hyderabad. The Committee has verified the Green initiatives carried out by the College and the College has successfully demonstrated knowledge on Energy Conservation, Water Conservation, Bio Diversity, Waste Management and Carbon footprint.


The Green Audit Committee is pleased to declare the following grades in the following categories for their satisfactory performance and is valid from August 2021 to July 2022.

Green Initiatives -	“ B ”	Grade
Energy Conservation-	“ B ”	Grade
Environmental Protection -	“ B ”	Grade

  
Academic Guidance Officer  
O/o Collegiate Education  
Hyderabad

  
Dr. D. Seshikala  
Dept. of Environ. Science  
OU, Hyderabad

  
Dr. A. Vijaya Bhasker Reddy  
Dept. of Botany  
Nizam College, OU, Hyd.

  
Dr. A. Nageswara Rao  
Dept. of Zoology  
Nizam College, OU, Hyd.

**GOVERNMENT DEGREE COLLEGE,  
SUDIMALLA-Vill, YELLANDU,  
Bhadradi Kothagudem-Dist**

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**GREEN AUDIT REPORT  
FOR THE ACADEMIC YEAR-2021-22**

Submitted By  
The Green Audit Committee

PROCEEDINGS OF THE PRINCIPAL, GOVERNMENT DEGREE COLLEGE: YELLANDU

Present: Dr.P.Padma, M.Sc., B.Ed., M.Phil., Ph.D.,

File No.GDCYLD/9/2021

Dated: 04-09-2021

Sub: GDC, YELLANDU- Constitution of Green Audit committee for the academic year 2021-2022-orders-issued.

The Green Audit committee has been constituted for the academic year 2021-2022 with the following members as per the guidelines. The Coordinator and members are strictly instructed to conduct meetings regularly and submit compliance report to the Principal of this college in time.

**Green Audit committee:**

S.No.	Name	Designation	Designation in Green Audit
1	Dr.P.Padma	Principal	Chairperson
2	Smt. S.Indrani	Assistant Professor of Botany	Vice Chairperson
3	Sri.B.Chenchurathnaiah	Assistant Professor of Zoology	Coordinator
4	Smt. K. Havilah	Principal, SRAS College	Member
5	Sri. M. Ravikiran	Forest Range Officer, Yellandu	Member
6	Smt. P. Sarada	Lecturer in Chemistry	Member
7	Smt. S. Bindusree	Assistant Professor of Commerce	Member
8	Sri. M. Pitchaiah	Assistant Professor of Economics	Member
9	Sri. K. Kiran Kumar	Assistant Professor of Physics	Member

To

The Individuals concerned.

Copy to the Principal, Govt. Degree College, Yellandu

Copy to the Establishment section of college

*P. Padma*

PRINCIPAL

**PRINCIPAL**  
Govt Degree College  
Yellandu.

1. *P. Padma - P. Padma*

7. *P. SARADA P.S.*

2. *S. Indrani - Indrani*

8. *M. Pitchaiah - M.P.*

3. *B. Chenchurathnaiah - B.C.*

4. *K. Havilah - K.H.*

9. *K. Kiran Kumar*

5.

*K.K.*

6. *S. Bindusree*

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**COMMISSIONERATE OF COLLEGIATE EDUCATION, TELANGANA:  
HYDERABAD**

**PROFORMA FOR GREEN AUDIT**

**College Profile**

Name of the College: Government Degree College Yellandu  
Address: Government Degree College Yellandu, Sudimalla,  
Bhadradi - Kothagudem Dist  
Contact Info: 9247864403  
Campus Area: 9 and 996 sq.mts  
Built-up Area: 1534 sq.mts *or 4602 sq.ft.*

Is the building has ventilators for natural air flow in all rooms: Yes

**The student and faculty strength of the college:**

Strength	Male	Female	Total
No of students	156	173	329
No of Teaching Staff	10	05	15
No of Non-Teaching staff	03	00	03

**Physical Structure**

The available land of the college: 9.996 acres and 0 Guntas .

The built-up area of the college: 1534Sq. *ft.* *mt.*

No. of Class Rooms	07
No. of Laboratories	05
No. of Conference halls	01
Library Halls	01
Auditorium	Nil
Canteen	Nil
Any other (please specify)	Play ground

<b>Objectives :</b>	1. To promote the environmental management and conservation in the college campus. 2. To Conserve energy, to use renewable sources, to harvest rain water
<b>Prepared by:</b>	Green Audit Committee
<b>Approved by:</b>	PRINCIPAL, GOVT DEGREE COLLEGE, YELLANDU.
<b>Remarks :</b>	Nil
<b>FORMS AND SUPPORT MATERIAL</b>	
Questionnaire Document ref. name/no.:	1. Green Audit Committee 2. Energy Audit
Checklist for Environmental Audit Document ref. name/no.:	1. Water management 2. Energy management 3. Waste management 4. Green Campus 5. Carbon foot print
Additional forms and support material:	Photos

**Background:** The history of an Institution / Organization, including information on the setting and construction plan, environmental practices, known environmental issues from the site and neighbours, previous environmental damage/spill at the site and monitoring records. Any changes made or occurred up to the time of the last audit and future plans for the development. The natural resources used as input, processing of materials and all finished products (energy, water, raw material use) and wastes including hazardous and toxic wastes.

**General Objectives** (can be slightly modified according to need of an Institution)

- 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.

#### **Protocols used for Environmental Audit**

**Internal Audit Team Structure: (7+2=9):** It comprises Principal as Chairman, IQAC coordinator as Vice-Chairman, Principal of the

neighboring college as special invitee, one coordinator from faculty of Botany/Zoology/ Environmental Science and three other members from any faculty interested in environment related activities. College can include two extra invitee members from Forest Department / Pollution control board / Health Department/ etc.

**Questionnaire:** this is used for acquiring basic information related to different categories to be covered in an institution.

**Check List:** This is used for providing a detailed listing of all issues to be covered in an institution.

**Photographs:** A picture speaks 1000 words. Use photographs to support findings and to highlight good practices with geo-tagging.

**Comprehensive Methods:** The detailed methodology is required for environmental audit and it must be conducted using comprehensive protocols and fixed procedures to ensure collection and documentation of the required data and verification of facts based on the information provided.

**Relevant Measures and Standards:** The standard measures could be adjusted to be relevant to the organization or activity being audited.

**Written Reports:** Reports should contain factual observations, reasoning and the documentation of the processes. The Clarity and accuracy should be maintained while presenting the findings with the support of valid and documented evidence.

**Evidence verification:** The concept of evidence and verification of environmental deficiencies is one of the key elements in an environmental audit. Initially the Internal audit team must verify all procedures, collected data and information through direct field inspection.

**Certification and Grading:** The External audit team will assess and evaluate the internal audit report and after thorough verification certificate along with grade will be issued.

<b>PROCEDURE</b>		
<b>Procedure</b>	<b>Description</b>	<b>Responsibility</b>
Annual plan	The environmental audit report is prepared by College Authorities each year and it ensures that the entire environmental management system is examined, must specify when the audit was carried out and those responsible for carrying it out.	Internal Environmental audit team /coordinator
Preparation	<p>The typical questionnaire and check-lists are developed for the area to be audited before the actual individual audits are carried out. It is done using established procedures, objectives and action plans. They can be used to measure results in each area.</p> <p>The staff and in charges of the area to be audited should be informed well in advance about when the audit would be done and what it covers.</p>	Internal audit team
Internal Audit	Based on the questionnaire and checklists, the audit is carried out in the form of interviews / physical visit about - and observations of the actual state of affairs. The Team suggests further changes and correction as and when required.	Internal Audit team

<p>Wrap-up meeting</p>	<p>An audit report is prepared which is examined together with the in- charges responsible for the each area; minor areas are taken care of immediately, while a conclusion for the audit as a whole is written down.</p> <p>Correction reports are examined and corrective action is agreed upon. The internal audit team and the College Management / Principal sign the reports made. Then the reports must be submitted to the CC Office at Hyderabad.</p>	<p>Internal audit team</p>
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<p>Follow-up</p>	<p>When deadlines for corrective action are reached, the Coordinator responsible for the area audited is contacted and the environmental manager checks the corrective action carried out. If corrective action is effective, the case is closed. If not, a new report is prepared.</p>	<p>Coordinator</p>
<p>Reporting</p>	<p>A comprehensive joint report is prepared on the basis of all the internal environmental audits of the college. This report forms the basis for certification and grading by the external audit team and it holds the authority to review the entire report.</p>	<p>External Audit team/ Principal/ IQAC coordinator</p>



## AUDITING FOR WATER MANAGEMENT

1. List out uses of water in your college. Drinking, Watering plants, Wash rooms, labs, Coolers and cleaning purpose.
2. What are the sources of water in your college? Boor well water
3. How many wells are there in your college? 4
4. No. of motors used for pumping water from each well? 1
5. What is the total horse power of each motor? 5hp
6. What is the depth of each well? 300 feet
7. What is the present depth of water in each well? 30 feet
8. How does your college store water? Over head water tanks, Pits
9. Quantity of water stored in your overhead water tank? (In liters) 2000 liters
10. Quantity of water pumped every day? (In liters) 300-350 lit
11. If there is water wastage, specify why. No
12. How can the wastage be prevented / stopped? No
13. Locate the point of entry of water and point of exit of waste water in

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Where does waste water come from? From RO plant

14. Where does the waste water go? Water Harvesting Pit
15. What are the uses of waste water in your college? Watering plants in Garden/left to Drainage
16. What happens to the water used in your labs? Whether it gets mixed with ground water? NO
17. Is there any treatment for the lab water? NO
18. Whether green chemistry methods are practiced in your labs? 1.Drip Irrigation for gardening, 2.Checking pipes, taps, toilets for leakage
19. Write down four ways that could reduce the amount of water used in your college. 1.Chek up the taps every day,2.Checking up leakage of pumps regularly
20. Record water use from the college water meter for six months. No
21. Bimonthly water charges paid to water connections if any, 1. No
22. No. of water coolers. Amount of water used per day? (in liters) 2 coolers, 80letters
23. No. of water taps. Amount of water used per day? 25 Taps,2000 Lts
24. No. of bath rooms in staff rooms, common, hostels. Amount of water used per day? 2 Bath rooms, 200Lts
25. No. of toilet, urinals. Amount of water used per day? 3 for girls,03 Toilets for boys, 04 urinals girls, 04 urinals boys, 500 Lts
26. No. of water taps in the canteen. Amount of water used per day? NA
27. Amount of water used per day for garden use. 1000 lts during summer
28. No. of water taps in laboratories. Amount of water used per day in each lab? 04, 200 lts.
29. Total use of water in each hostel? .N/A
30. 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? Complied
31. Is there any water used for agricultural purposes? N/A
32. Does your college harvest rain water? Yes

33. If yes, how many rain water harvesting units are there?  
(Approx.amount)? 04

34. How many of the taps are leaky? Amount of water lost per day? N/A

35. Are there signs reminding people to turn off the water? Yes

36. Is there any waterless toilets? NO
37. How many water fountains are there? NIL
38. How many water fountains are leaky? NIL
39. Is drip irrigation used to water plants outside? YES
40. How often is the garden watered? Daily
41. Quantity of water used to watering the ground? 50 lts
42. Quantity of water used for bus cleaning? (Liters per day) N/A
43. Amount of water for other uses? (Items not mentioned above) N/A
44. Area of the college land without tree/building canopy. 4 acres
45. Is there any water management plan in the college? Yes, Drip
46. Are there any water saving techniques followed in your college? What are they? Harvesting Pits in the college: Drip, Pits
47. Please share Some IDEA for how your college could save more water. Pits ever in the college and small pond in the college? 1. Enlighten the students to save water, 2. Check pipes, toilets, taps for leakage and rectify, 3. Drip irrigation for gardening

#### **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).  
1. Electricity
2. Electricity bill amount for the last year 2020-2021- Rs.321856/-
3. Amount paid for LPG cylinders for last one year: N/A
4. Weight of firewood used per month and amount of money spent? Also mention the amount spent for petrol/diesel/ others for generators? N/A
5. Are there any energy saving methods employed in your college? If yes, please specify. If no, suggest some. Led bulbs are installed for saving energy: Yes 1. Installation of LED Tubes and Lights, 2. Educating students about Energy conservation and switching off lights, fans, and other appliances when not in use.

6. How much money does your college spend on energy such as electricity, gas, firewood, etc. in a month? 1.Rs.26800/-

7. How many CFL bulbs has your college installed? Mention use (Hours used/day for how many days in a month) 8 CFL Installed, & 6 hours per a day, 25 Days in Month

8. Energy used by each bulb per month? (For example- 60 watt bulb x 4hours x number of bulbs = Kwh); 0.96 Kwh

9. How many LED bulbs are used in your college? Mention the use (Hours used/day for how many days in a month) 25bulbs 7 hours per day: LED Tubes installed 15, 6 Hours/day, 25 Days

10. Energy used by each bulb per month? (kWh): 3 Kwh by each LED tube per month
11. How many incandescent (tungsten) bulbs have your college installed? Mentions use (Hours used/day for how many days in a month) N/A
12. Energy used by each bulb per month? (kWh). N/A
13. How many fans are installed in your college? Mention use (Hours used/day for how many days in a month) 15 fans for the students: 55 fans, 3 hours/day, 25 days
14. Energy used by each fan per month? (kWh): 4.32 Kwh
15. How many air conditioners are installed in your college? Mention use (Hours used/day, for how many days in a month) 2 and 25 days per month: 2, 2 hours/day, 15 days
16. Energy used by each air conditioner per month? (kWh): 60 Kwh
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): List Enclosed
18. Energy used by each electrical equipment per month? (kWh). List Enclosed
19. How many computers are there in your college? Mention the use (Hours used/day for how many days in a month)? 48&for the use of jkc 3 hours per a day: 48, 2 hours/day, 25 days
20. Energy used by each computer per month? (kWh). 3.2 Kwh
21. How many photocopiers are installed by your college? Mention use (Hours used/day for how many days in a month). 01, 24days: 1 photostat Machine, 1 hour/day, 25 days, 1 Printer cum Scanner 2 hours/day, 25 days, 5 Printers 2 hours/day, 25 days
22. How many cooling apparatus are in installed in your college? Mention use (Hours used/day for how many days in a month): 3 Refrigerators, 24 hours/day, 30 days
23. Energy used by each cooling apparatus per month? (kWh) Mention use (Hours used/day for how many days in a month) : 108 Kwh
24. Energy used by each photocopier per month? (Kwh) Mention the use

**GOVERNMENT DEGREE COLLEGE, YELLANDU**  
**ENERGY AUDIT CONSOLIDATED REPORT**

Sl.No	Electrical Appliances/Instruments	Number	Power (W)/Unit	Total power(W)	KW	Operation (hrs)/Day	KW/hr	No. of days in month	Total consumption/month
1	CFL	8	14	112	0.112	6	0.672	25	16.8
2	Tube	25	40	1000	1	6	6	20	120
3	LED Tube	15	20	300	0.3	6	1.8	25	45
4	Fans	55	60	3300	3.3	3	9.9	24	237.6
5	Amplifiers	1	200	200	0.2	1	0.2	10	2
6	LCD Projector	4	100	400	0.4	1	0.4	15	6
7	Computers	48	80	3840	3.84	2	7.68	25	192
8	Laptops	1	60	60	0.06	2	0.12	10	1.2
9	Photostat Machine	1	100	100	0.1	2	0.2	25	5
10	UPS	2	1000	2000	2	8	16	20	320
11	AC	2	2000	4000	4	2	8	15	120
12	Refrigerator	3	150	450	0.45	24	10.8	30	324
13	Printer Cum Scanner	1	1000	1000	1	1	1	25	25
14	Printers	5	1000	5000	5	1	5	25	125
15	Table Fan	2	55	110	0.11	1	0.11	20	2.2
16	Oven	1	1500	1500	1.5	1	1.5	10	15
17	Exhaust Fans	2	32	64	0.064	2	0.128	20	2.56
18	Centrifuge	2	850	1700	1.7	1	1.7	10	17
19	Distillation Unit	2	1000	2000	2	1	2	10	20
20	Sanitary Napkin Incinerator	1	1200	1200	1.2	2	2.4	15	36
21	Horse Power Motor	1	800	800	0.8	5	4	20	80
22	Water Plant	1	100	100	0.1	2	0.2	25	5
23	CC TV DVR	8	10	80	0.08	24	1.92	30	57.6
<b>TOTAL</b>									<b>1,774.96</b>

*K. Kiran Kumar*  
(K. Kiran Kumar)

(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): Photostat Machine-3 Kwh, Printer cum Scanner-60 Kwh, Printers-20KWH 2 hours per day.

25. Energy used by each inverter per month? (kWh).N/A

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):Centrifuge- 2 1hour/day, 10 days in month, Distillation Unit-2 1hour/day, 10days in month

27. Energy used by each equipment per month? (kWh): Centriguge- 8.5Kwh., Distillation Unit -20 Kwh



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) N/A
29. Energy used by each heater per month? (kWh) N/A
30. No of street lights in your college? N/A
31. Energy used by each street light per month? (kWh).N/A
32. No of TV in your college and hostels? Nil
33. Energy used by each TV per month? (kWh):N/A
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) List Enclosed
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. Nil
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? Yes 1 hour/day
39. What are the energy conservation methods adapted by your college? Giving suggestion to the students to the students? Installed led bulbs
1. Awareness programs for conservation of Energy
  2. Installation of 5 star rated Energy Appliances
  3. Installation of LED lights/Tubes
40. How many boards displayed for saving energy awareness? 02
41. How much ash is collected after burning fire wood per day in the canteen? N/A
42. Write a note on the methods/practices/adaptations by which you can reduce the energy use in your college campus in future.
1. Giving suggestion to the students, 2. Switching off un-necessary points of energy consumption by using LED tubes, 3. Planning to Install Roof top Solar Panels to reduce Dependency on Non-Renewable Energy.

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

### **AUDITING FOR WASTE MANAGEMENT**

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

Strength	Male	Female	Total
No of students	156	173	329
No of Teaching Staff	10	05	15
No of Non-Teaching staff	03	00	03

No of students: 349

No. of Students; No. of Teachers; No. Non-teaching staff; Gents - Ladies  
Total 329 students, 10 teaching staff, 03 non teaching staff

Which of the following are available in your College?

Give area occupied, Garden area and Garbage dump (number)? 5 acre's,  
2 pits,

Playground area 03 acres, 4000 sq ft 5 labs Laboratory, Kitchen nil,  
Canteen nil, Toilets 04 3200 sq ft.

Number of class rooms, Office rooms and others (specify) 07 class rooms,  
01 Office rooms.

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

Garbage heap, nil

Public convenience Sewer line

Stagnant water nil

Open drainage Industry - (Mention the type) nil

Bus / Railway station Market / shopping complex / public halls nil

### **WASTE**

Does your college generate any waste? If so, what are they?

How much quantity? 50 kg

Number or weight E-waste Hazardous waste (toxic)

Solid waste 10kg

Dry leaves 10 kgs 5kgs per dy,

Canteen nil,

waste Liquid nil ,

waste nil

Glass nil

Unused equipment nil Medical waste if any nil

Napkins Others (Specify) 1 kg

12

Is there any waste treatment system in the college? no

Is there any treatment for toilet/urinal/sanitary napkin waste? nil

1 What is the approximate quantity of waste generated per day? (in Kilograms) Office Laboratories Canteen/kitchen 02 kg

2 Why waste is a problem? 1. It pollute the ground/ Surface water 2 . Animals can consume waste.

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

4 waste enters into the surface of soil and water.No

5 Whether waste is polluting the air of the college? No

6 How? 5 How is the waste generated in the college managed? (Yes)

Methods 1 Composting (Yes)

2 Recycling (no)

3 Reusing (no)

4 Others nil (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?

12 boxes

What should be the use for each box? (Develop a Colour code with reasons) 1. Paper waste , other waste.

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 2 -10 kg. >10 kg. no

Approx. Bio degradable Non-Bio degradable Hazardous Others < 1 kg. 2 - 10 kg. > 10 kg. no

Approx. Bio degradable Non-Bio degradable Hazardous Others < 1 kg. 2 - 10 kg. > 10 kg. no

9 How would you spread the message of recycling to others in the community? Have you taken any initiatives? If yes, please specify. Yes ( held rallies )

10 Can you achieve zero garbage in your college? (Reduce, Recycle, Reuse, Refuse) If yes, how? By making use of recycling facility.

### **AUDITING FOR GREEN CAMPUS MANAGEMENT**

1. Is there a garden in your college? Area? Yes ,5 Acres
2. Do students spend time in the garden - yes

List the plants in the garden, with approx. numbers of each species.

1. 26 types 500 species of different types
2. Suggest plants for your campus. (Trees, vegetables, herbs, etc.) Shade trees , medicinal plants , endangered plants.
3. List the species planted by the students, with numbers. Plants planted by students are 5 types. 1.Derris pongamia 10 plants 2. Azadiracta indica 05 3. Bahania purpuria 05 ,4. Psidium gujava 20 ,05 punica granatus 20.
4. Whether you have displayed scientific names of the trees in the campus? yes
5. Is there any plantations in your campus? If yes specify area and type of plantation. 2 areas, trees and shrubs.
6. Is there any vegetable garden in your college? If yes how much area? no
7. Is there any medicinal garden in your college? If yes how much area? Yes 20 guntals.
8. What are the vegetables cultivated in your vegetable garden? (Mention the quantity of harvest in each season) no
9. How much water is used in the vegetable garden and other gardens? (Mention the source and quantity of water used). n/a
10. Who is in charge of gardens in your college? S. Indrani ,Asst proff of Botany.
11. Are you using any type of recycled water in your garden? no
12. List the name and quantity of pesticides and fertilizers used in your gardens? no
13. Whether you are doing organic farming in your college? How? no
14. Do you have any composting pit in your college? If yes, what are you doing with the compost generated? Yes , Using as manure to the plants
15. What do you doing with the vegetables harvested? Do you have any student market? no
16. Is there any botanical garden in your campus? If yes give the details of campus flora. no

17. Give the number and names of the medicinal plants in your college campus. Ocimum sanctum 20 , Azadirachta indica 50

18. Any threatened plant species planted/conserved? no

19. Is there a nature club in your college? If yes what are their activities?  
Yes , ecoclub conducting awareness programs and plantation programmers'

20. Is there any arboretum in your college? If yes details of the trees planted.

no

21. Is there any fruit yielding plants in your college? If yes details of the trees planted. Yes , 1. Guava , 2. Pomegranate , 3. Mango.
22. Is there any groves in your college? If yes details of the trees planted.  
NO
23. Is there any irrigation system in your college? no
24. What is the type of vegetation in the surrounding area of the college?  
Ever green vegetation .
25. What are the nature awareness programmers' conducted in thecampus? 1. Haratha haram, 2. Swachh Bharat
26. What is the involvement of students in the green cover maintenance?  
Plantation as part of Haratha haram, watering plants and maintainance
27. What is the total area of the campus under tree cover? Or under tree canopy? 3 acres
28. Share your IDEAS for further improvement of green cover. 1. Plantation of Medicinal plant garden and Botanical garden 2. The campus is already green , To maintain them , water them and keep them growing

#### Flora of GDC YELLANDU

NO	Common Name	Botanical Name	Approximate no. species
1	Pome granate	Punica granatus	50
2	Hibisus	Hibisus rosa sinensis	10
3	Alomond	Terminalia catappa	4
4	Neem	Azadirachta Indica	20
5	Mango	Mangifera	10
6	Sapota	Achras sapota	5
7	Guava	Psidium guajava	50
8	Amla	Phyllanthus emblica	5
9	Lemon	Citrus limon	5
10	Red sandal wood	Pterocarpus santalinus	15
11	Coconut	Cocas nucifera	50
12	Teak	Tectoria grandis	50
13	Rose	Rosa indica	10
14	Yellow flame tree	Peltophorum petrocarpum	10
15	Congress grass	Parthinium histerophorcus	50



16	Orange	Citrus sinensis	5
17	Fishtail palms	Caryota urerrs	5
18	custard apple	Annona squamosa	50
19	Different types or grass and crotons	Ashoka trees-polyalthia longifolia	50
20	Black apple	syzygium cumin	20
21	Ganuga	Pongamia pinnata	30

### 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

Strength	Male	Female	Total
No of students	156	173	329
No of Teaching Staff	10	05	15
No of Non-Teaching staff	03	00	03

No of students 349

2. Total Number of vehicles used by the stakeholders of the college. (per day)? 20 vehicles

3. No. of cycles used? NIL

4. No. of two wheelers used (average distance travelled and quantity of fuel and amount used per day)? 20 1kms ½ liter-Rs.100/-

5. No. of cars used (average distance travelled and quantity of fuel and amount used per day)? 3 cars 50 kms. Rs.1500/-

6. No. persons using common (public) transportation (average distance travelled and quantity of fuel and amount used per day)? 50 persons 50 kms 100 lts Rs.7000/-

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.)? 2 Meetings 50% Parent-Teacher

9. Number of visitors with vehicles per day? 05

- 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. Rs.4000/-
- 16. Use of any other fossil fuels in the college (Give the amount of fuel used per day and amount spent). nil
- 17. Suggest the methods to reduce the quantity of use of fuel used by the stakeholders/students/teachers/non-teaching staff of the college. 1.Avoid private vehicles, use public transport, 2.Advise students to use bicycles
- 18. Are the Rooms in Campus are Well Ventilated? Yes
- 19. Window Floor ratio of the Rooms Good/Not Enough? Good

**Carbon Footprint - Sample Report**

- Petrol used by two wheelers/day- 20 L
- (Per person to and fro 40 Kms=1L) Fuel used by four wheelers (10 Persons) - 21 L

## 1. Water management

SLNO	PARAMETERS	Response	Remarks
1	Source of water	Bore well	-
2	No. of Wells	07	-
3	No. of motors used	01	--
4	Horse power – Motor	5 hp	-
5	Depth of well –Total	100 fts	-
6	Water level	2fts	-
7	Number of water tanks	02	-
8	Capacity of tank	1000 lts	-
9	Quantity of water pumped every day	1000 lts	-
10	Any water wastage/why?	N/A	-
11	Water usage for gardening	YES	-
12	Waste water sources	PITS 2	-
13	Use of waste water	NO	-
14	Faith of waste water from labs	NIL	-
15	Whether waste water from labs mixed withground water	NO	-
16	Any treatment for lab water	NO	-
17	Whether any green chemistry methodpracticed in labs	NO	-
18	No. of water coolers	02	-
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	-
	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]	6.8	7.2	6-8
Acidity (mg/l)	180	120	200
Alkalinity (mg/l)	76	118	200
Chloride (mg/l)	196	230	250
Hardness [Total]	170	228	200
Conductivity [μs]			
ph.	6.7	7	6.5-8.5
Total Dissolved Solids (ppm)	457	385	500
Salinity (ppt)			
Total Coliform	4	2	0
Fecal Coliform.	0	0	0

Chemistry department.

P-SARADA

Date: - 15-09-2021

P-

Results of water quality

Parameters	Bore Well water	Municipal Tap water	Standard value (BIS)
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Conductivity ( $\mu$ s)			
Ph.	6.7	7	6.5-8.5
Total Dissolved Solids (ppm)	457	385	500
Salinity (ppt)			
Total coliform	4	2	0
Fecal coliform	0	0	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)	NIL	NIL
2	Rotifers	NIL	NIL
3	Ostracods	NIL	NIL
4	Insect Larvae	NIL	NIL
5	Water Fleas	NIL	NIL
6	Bivalves	NIL	NIL
7	Snails	NIL	NIL
8	Mussels	NIL	NIL
9	Any Other (Specify)	NIL	NIL

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

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

How the waste generated in the college is managed?

A)Composting/ Vermicomposting	Yes/ No	Remark
B)Recycling	YES	
C)Reusing	FOR COMPOST OF PLANTS	
D)Other ways		

Waste generated in the college?

E-waste		-
Hazardous waste	N/A	
Solid waste	NA-	
Dry leaves	Yes, used for vermi compost	
Canteen waste	NA	
Liquid waste	NA	
Glass	NA	No
Unused Equipment	No	-
Napkins	2 Kgs/ Per month	
Others (specify)		-

<b>Do you use recycled paper in college?</b>	NO
<b>Any waste management methods used?</b>	NO

## Energy Audit Sample Report

Sl. No	Electrical appliance/s/instruments	Number	Power (W)/unit	Total power(W)	kW	Operation /day	kW/hr	No.of days in month	Total consumption per month
1	CFL	08	14	112	0.112	6	0.672	25	16.8
2	TUBE	25	40	1000	1	6	6	20	120
4	LED BULB	-	-	-	-	-	-	-	-
5	LED TUBE	15	20	300	0.3	6	1.8	25	45
6	PROJECTOR	4	100	400	0.4	1	0.4	15	6
7	SPEAKER	-	-	-	-	-	-	-	-

	S				6				
8	FAN	55	60	3300	3.3	3	9.9	24	237.6
9	COMPUTER	48	80	3840	3.84	2	7.68	25	192
10	LAPTOPS	1	60	60	0.06	2	0.12	10	1.2
11	PRINTERS	2	60	120	0.12	1	0.12	20	2.4
12	PHOTOSTAT MACHINE	6	650	3900	3.9	2	7.8	15	117
13	SCANNER	1	50	50	0.05	0.5	0.025	15	0.375
14	UPS	3	1000	3000	3	12	36	20	720
15	INDUCTION	1	2000	2000	2	0.25	0.5	15	7.5
16	A/C	2	7000	14000	14	1	14	15	210
17	REFRIGERATOR	3	150	450	0.45	24	10.8	30	324
18	TABLE FAN	2	55	110	0.11	1	0.11	20	2.2
19	MIXER GRINDER								
20	OVEN	1	1500	1500	110	0.11	1	20	0.2
22	CENTRIFUGE	2	850	1700	1.7	1	1.7	10	17
23	AUTOCLAVE	-	--	-	-	-	-	-	-
24	ULTRASOUND	-	--	-	-	-	-	-	-
25	LAMINAR FLOW	-	--	-	-	-	-	-	-
26	EXHAUST FAN	2	32	64	0.064	2	0.128	20	2.56
27	IRON BOX	-	--	-	-	-	-	-	-
28	SEWING MACHINE	-	--	-	-	-	-	-	-
29	COLOUR BULB	-	--	-	-	-	-	-	-
30	INCUBATOR	-	--	-	-	-	-	-	-
31	DISTILLATION UNIT	-	--	-	-	-	-	-	-
32	SANITARY NAPKIN INCINERATOR	1	1200	1200	1.2	2	2.4	15	36



33	CCTV DVR	8	10	80	0.08	24	1.92	30	57.6
	<b>Total Consumption per month</b>						9515.15 kW/hr		1,774.96/kwh

Faunal diversity in college campus (with Photographic evidence)

<b>Faunal group</b>	<b>Scientific name</b>	<b>Number (If enumeration is done)</b>	<b>Seasonality</b>
Cows	Corvus splendens	50	All seasons
Butterflies	Ropalosera	500	All seasons
Cobra	Naja naja	5	All seasons
Cranes	Ardeidae	30	
Rats	Rattus rattus	200	-
Dogs	Canis lupus	5	-
Cats	Felis catus	4	-
Buffalos	Babulus babulis	5	-
Cows	Bostaurus	5	-
Squirrels	Tamias Tamias	10	-
Frogs	Ranatigrinus	50	
Bluejoy	Cyanocitta cristata	2	
Sparrow	Passer domesticus	5	
Wood pecker	Sphyrapicus varius	5	
Green snakes	Opheodrys aestivus	5	
Parrot	Psittaciformes manillensis	10	
Wall lizard	hemidactylus	50	
Monkeys	Macaques macaca	100	

## Air quality Determination:

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

NO <sub>2</sub>	26 Ug m <sup>3</sup>
NO	22.5 PPM Avg
O <sub>3</sub>	81.5 Ug m <sup>3</sup> per 8 hours
PM <sub>2.5</sub>	32 Ug m <sup>3</sup>
PM <sub>10</sub>	54 Ug m <sup>3</sup>
CO	1.5 Mgm <sup>3</sup> per 8 hours
Humidity	67 %
Barometric Pressure	7.55 mm + Hg
Wind Speed	8.9 Km h <sup>-1</sup>
Wind Direction	South to east
Sun Rise	Day light hrs 05:57 Am./Avg-10.2
Sun Set	Sun set hrs 18:12 pm / Avg-10.2

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	60	38	41	52
2	Canteen	NIL	NIL	NIL	NIL
3	Play ground	70	62	79	49
4	Auditorium	NIL	NIL	NIL	NIL
5	Science Block	NIL	NIL	NIL	NIL
6	Any Other (Specify)	NIL	NIL	NIL	NIL

# AIR QUALITY DETERMINATION

## AIR QUALITY INDEX:-

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Barometric pressure	7.55 mm Hg
wind speed	8.9 $\text{km h}^{-1}$
wind direction	South to east.
Sun rise.	Day light hrs @ 5:57 Am. / Avg - 10.2.
Sun set	Sun set hrs 18:12 pm / Avg - 10.2.

Chemistry department. P. SARADA P. S.

Date :- 15-09-2021

If any eco-friendly or restoration activities conducted, please specify.

GRADING FOR ENVIRONMENTAL AUDIT REPORT

**GRADING FOR ENVIRONMENTAL AUDIT REPORT**

S.N O	COMPONENTS FOR ASSESSMENT	MAX. MARK S	Marks Obtained	GRADE S
1	Energy audit	20	15	<b>A+ : 91-100</b>
2	Waste audit	15	8	
3	Water audit	15	10	
4	Landscape or Environment audit	15	10	
5	Carbon footprint & Oxygen emission audit	15	10	<b>A : 81-90</b>
6	Green activities (conduction of seminars/conferences/workshops/student competitions/awareness programmes/observation of environmental related days etc.	10	10	<b>B+ : 71-80</b>
7	Student clubs (Environmental club/Green club/Nature club/Biodiversity club/ ECO Club/Friends and Fauna Club/Science club etc.) activity annual report	10	10	<b>B : 61-70</b>
	<b>Total</b>	<b>100</b>	73	<b>C : 51 - 60</b>

*P. Padma*  
11/11/2021  
**PRINCIPAL**  
**Govt Degree College**  
**Yellandu**

**Government Degree College, Yellandu**

**Bhadradri Kothagudem Dist**

From	To
Dr.P.Padma	The Commissioner of Collegiate Education
Principal	Govt. of Telangana
Govt. Degree College	Vidyabhavan, Nampally
Yellandu	Hyderabad
Bhadradri Kothagudem Dt.	

**Respected Sir,**

Sub: Govt. Degree College, Yellandu- Submitting Green Audit Report of our institution - Request - Regarding.

Ref: 1. File. No. CCE-AC/QLTY/NAAC/1/2021-ACADEMIC CELL, Dated: 26-07-2021

In accordance with the subject and reference cited above, I am submitting green audit report for your kind consideration and necessary action. Our institution was constituted a Green Audit committee on 04-09-2021, according to the guidelines of Commissioner of College Education, Hyderabad. Our college has given 73 points and attained Grade "B+" by self evolution done by the Green Audit Committee of institution. Proceedings of the principal regarding green audit committee is enclosed.

I shall be ever thankful for this kind of favour.

Thanking you Sir,

Yours faithfully,

Principal

Signed by Padma Pukkalla

Date: 11-11-2021 14:46:41

Reason: Approved