



**GOVERNMENT DEGREE COLLEGE, SHADNAGAR,
RANGAREDDY, TELANGANA, INDIA**

Affiliated to Palamuru University, Mahabubnagar

ISO Certification: ISO900 : 2015

Website: <https://gdcts.cgg.gov.in/>

**POLICY DOCUMENT
ON
ENVIRONMENT AND ENERGY USAGE**



Policy Document
On
Environment and Energy Usage

The Environment and Energy usage Policy of Government Degree College, Shadnagar, Ranga Reddy is to manage energy in optimal way so as to mitigate its impact on the environment. The policy implies to explore the renewable energy resources to lessen the burden on the government and to emerge with substitute natural resources as solutions to the energy crisis.

This environment and energy policy is binding for all the facets of the institution and applies to all its stakeholders and to the various activities undertaken by the institution. It will help us to integrate efficiency and environmental sensitization into our routine activities, thus helping us to realize our responsibilities and commitment to conservation of natural resources and to curb its usage judiciously. The **Eco-Club**, a formal platform dedicated to the cause of ecological awareness, to take up green initiatives and to conduct green literacy programmes to save energy and to conserve the environment.

Objectives:

- ❖ To evaluate our energy usage and measure its impact on the environment.
- ❖ To reduce local air pollution emissions using ecofriendly vehicles, including bicycles, public transportation and car pooling.
- ❖ To install photovoltaic solar panels for the generation of alternate energy.
- ❖ To install LED bulbs in the entire campus to save energy.
- ❖ To develop systematic waste management mechanism.
- ❖ To develop rain water harvesting unit.
- ❖ To undertake tree plantation drive.

- ❖ To engage in dialogue with the government agencies, municipal corporation and the affiliating university and actively work with the local organizations in the areas of environment, energy efficiency and sustainable development.
- ❖ To monitor and respond to emerging environmental and energy issues.
- ❖ To strengthen our employee's and students' environmental knowledge and skills in order to improve our own environmental quality.
- ❖ To train our employees and students through our Eco-Club to make them 'Go Green Specialists' and partners to plant trees each year.

This policy will be communicated to the students and employees via internal communication channels and will be made available to all the stakeholders on the institutional website. The Environment and Energy Policy, Objectives and Targets will be reviewed on a regular basis by the Eco-Club Convener and its members under the leadership of the Principal of the college.



IQAC COORDINATOR



PRINCIPAL
Govt. Degree College
Shadnagar,
Ranga Reddy Dist.

PRINCIPAL



Certificate

HYM International Certifications Pvt. Ltd.

Certified that the Quality Management System of

GOVERNMENT DEGREE COLLEGE

Shadnagar, Rangareddy District, Telangana State, India

has been assessed and found to be in accordance with the requirements of the quality standards

ISO 9001 : 2015

for the following scope of certification

PROVIDING EDUCATIONAL SERVICES

Further information about the scope of this certificate and applicability of ISO 9001 : 2015 requirements may be obtained by consulting the organization.

Issue Date : 15/06/2022

1st Surveillance 14/06/2023

Renewal Date : 14/06/2025

2nd Surveillance 14/06/2024



Authorised Signature

Certificate No : **Q91864142550**

HYM International Certifications Pvt. Ltd

NOTE: This Certificate is Valid From 15/06/2022 to 14/06/2023

This is an accredited certificate authorized for issue by Accreditation Service for Certifying Bodies [Europe] Limited who have assessed M/s.HYM International Certifications Pvt. Ltd. against defined criteria and in cognisance of ISO 17021:2015 "Conformity Assessment - Requirements for bodies providing audit and Certification of management Systems".

www.hymcertifications.com on for checking the validation of the Certification

Regd. Office : Plot No. 265/C, Addagutta Society, Opp. JNTU, Kukatpally, Hyderabad - 500 072, Telangana State, India.
E-mail: siva@hymcertifications.com, Website: www.hymcertifications.com




Certificate



This is to certify that **GOVERNMENT DEGREE COLLEGE, SHADNAGAR** is now a **Recognized Social Entrepreneurship, Swachhta & Rural Engagement Cell (SES REC) Institution**. The Institution has successfully framed the SES REC Action Plan and constituted ten working groups for improving facilities in the Campus and the Community/Adopted Villages in the areas of Sanitation & Hygiene, Waste Management, Water Management, Energy Conservation and Greenery post COVID-19, along with the observation of three environment, entrepreneurship and community engagement related days to inculcate in faculty, students and community, the practices of **Mentoring, Social Responsibility, Swachhta and Care for Environment and Resources**.

Date of Issue:03-09-2020


Dr. W G Prasanna Kumar
Chairman

Mahatma Gandhi National Council of Rural Education
Department of Higher Education, Ministry of Education
Government of India

Certificate No.: Mo/SESREC/TS/RR/818



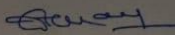
COMMISSIONERATE OF COLLEGIATE EDUCATION GOVERNMENT OF TELANGANA

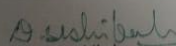
CERTIFICATE (GREEN, ENERGY and ENVIRONMENT AUDIT)


This is to certify that Environmental, Energy and Green Audit has been conducted at the Government Degree College, Shadnagar, Rangareddy District, 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.



भारतसरकार / Government of India

महात्मा गांधी राष्ट्रीय ग्रामीण शिक्षा परिषद / Mahatma Gandhi National Council of Rural Education
उच्चशिक्षाविभाग / Department of Higher Education
शिक्षामंत्रालय / Ministry of Education



District Green Champion Certificate

This is to certify that **Government Degree College, Shadnagar** is hereby recognized as **District Green Champion** for **Rangareddy** District, Telangana for the Academic Year 2021-22. The institution has successfully elevated the Swachhta Action Plan, adopted and implemented best practices in the areas of Sanitation, Hygiene, Waste Management, Water Management, Energy Management and Greenery Management.

Dr W G Prasanna Kumar
Chairman, MGNCRE
Ministry of Education, Government of India

तारीख / Date : 12.03.2022
ज्ञापनसंख्या / Memo no: MGNCRE/SAP22/N30



Received Green Champ Certificate from commissioner collegiate education sri Naveen Mittal(IAS)



(/)

उन्नत भारत अभियान

UNNAT BHARAT ABHIYAN

शिक्षित भारत-स्वस्थ भारत- स्वच्छ भारत- स्वावलंबी भारत- संपन्न भारत



Online Application for Participation

Institution Details

Technical/Non-Technical	Non-Technical
Name of the Institution	Govt. Degree College, Shadnagar (Id: C-21997)
Address	Opp.MRO Office, Christian Colony, Farooqnagar, Shadnagar
Nature of Institute	UGC
How you get to know about UBA ?	UBA website/Internet

Coordinator Details

Name of Coordinator of Institute	Dr S Ravinder Reddy
Telephone No.	9866742205
Mobile No.	9866742205
Email of Coordinator(Username)	samaravinder9@gmail.com

Head Institution Details

Name of Head of Institution	Sri.G.Bhanu Prakash
Telephone No.	9490333660

Mobile No.	9490333660
Email ID	gdc.shadnagar@gmail.com

Basic Information

No. of students in institute/university/college as on 31st July 2019	346
No. of students excluding final year students	269
No. of faculty specialized in Rural Process & development issues	0
NIRF ranking of institution, if applicable	More than 200 (if participated)
Whether there is a separate Department for Rural Studies	No
Is rural visit a part of the curriculum?	No
Does the institution give any academic credit for rural study, awareness generation reporting and solution formulation	No
Is the institution motivated & willing to incur field expenses for visits to adopted villages on its own?	Yes
Whether the Institution has NSS unit?	Yes
Does the institution maintain interaction with Panchayat bodies or District Collectors?	Yes

Panchayat Details

Names of Panchayat	CHINACHILKAMARI
State	Telangana
District	Rangareddy

Number of village adopted so far	0
No of reports socio-economic studies carried out in villages	0
Number of villages proposed to be adopted	5

List of Villages proposed to be Adopted

Sl.No.	Names of villages	State	District
1	Other	Telangana	Rangareddy
2	Other	Telangana	Ranga Reddy
3	Other	Telangana	Ranga Reddy
4	Other	Telangana	Rangareddy
5	Other	Telangana	Rangareddy

Mandate Form

Details of Account Holder (Institutional only not personal)

Name of Account Holder	PRINCIPAL GOVERNMENT DEGREE COLLEGE SHADNAGAR
Complete Contact Address	Opp.MRO Office, Christian Colony, Farooqnagar, Shadnagar
Contact No.	9490333660
Email	gdc.shadnagar@gmail.com

Bank Account Details (Institutional only not personal)

Bank name	HDFC BANK
Complete Address	Christian Colony, Farooqnagar, Shadnagar
Whether branch is computerized	Yes
Branch's RTGS CODE	HDFC0004330
Branch's IFSC CODE	HDFC0004330
If this branch NEFT enable	Yes
Type of Bank Account	Savings
Complete Bank Account no.	50100377818324
MICR Code of Bank	509240202
PAN Card Number	AAAGP1852N
TIN/TAN Number	HYDG10465A

Uploaded Document

Consent letter from Head of Institution/D.C. Letter Form :	View Uploaded Form (letter_of_district_collector/C-21997-2022-DC.pdf)
Mandate Form :	View Uploaded Form (letter_of_Mandate/C-21997-2022-Mandate.pdf)

**COMMISSIONERATE OF COLLEGIATE
EDUCATION, TELANGANA :: HYDERABAD
PROFORMA FOR GREEN AUDIT**

College Profile

Name of the College: Government Degree College, Shadnagar

Address : GDC, Farooqnagar, Near MRO office, Shadnagar, Ranga Reddy, Telangana – 509216.

Contact Info : Sri G. Bhanu Prakash, Principal - 9490333660

Campus Area : Five (05) Acres

Built-up Area : One (01) Acre

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

The student and staff (teaching and non-teaching) strength in the college:

Strength	Male	Female	Total
No. of Students	220	207	427
No. of Teaching Staff	9	7	16
No. of Non-Teaching staff	4	1	5

Physical Structure

The available land of the college: 05 acres and _____ Guntas.

The built-up area of the college: 43,560 Sq.Ft.

No. of Class Rooms	13 (7 CR's in New Building (UG) + 6 CR's in Jr College Building)
No. of Laboratories	04
No. of Conference halls	Nil
Library Halls	Nil
Auditorium	Nil
Canteen	Nil
Any other (please specify)	One class room is being presently used as Principal Chamber including Staff Room

Objectives:	<ul style="list-style-type: none"> ➤ Environmental risk assessment including compliance to regulations, Soil,Water,Solid&Noisepollution. ➤ WasteminimizationandEnvironmentalPollutioncontrol plans. ➤ Theoptimal utilizationofenergy,waterandotherNaturalResources. ➤ Rain Water Harvesting Pits to recharge groundwater. ➤ Emergencyresponseplanslike calling 108 for medical help or contacting Friends of Snakes Society (8374233366) or Forest Department (18004255364) in case of sighting a snake or giving first aid / therapy to a snakebite.
Preparedby:	Dr N RAJKUMAR, <i>N.R.K</i> Dr T UTTARA PHALGUNI <i>HTS</i> Sri B. SRINIVAS <i>B. Srinivas</i> Dr S. RAVINDER REDDY <i>Reddy</i>
Approvedby:	Sri G. BHANU PRAKASH, PRINCIPAL <div style="text-align: right;"><i>S.G.P</i> PRINCIPAL Govt. Degree College Chidambaram Tamil Nadu</div>
Remarks:	Excellent
FORMSANDSUPPORTMATERIAL	
Questionnaire Documentreferencename/No.:	No
Checklist for Environmental AuditDocumentreferencename/ No.:	No
Additionalformsandsupportmaterial:	Nil

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 finished products (energy, water, raw material use) and wastes including hazardous and toxic wastes.

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

- Environmental risk assessment including compliance to regulations, soil, Water, solid and E-wastes, emissions, hazardous products & noise pollution.

- WasteminimizationandEnvironmentalPollutioncontrolplans.
- Theoptimal utilizationofenergy,waterandotherNaturalResources.
- Recyclingprogramsandproductlifecycleconsiderations.
- Emergencyresponseplansandprocedures.

ProtocolsusedforEnvironmentalAudit

InternalAuditTeamStructure:(7+2=9):Itcomprisesof

- ThePrincipalasChairman,
- TheIQACcoordinatorasVice-Chairman,
- Dr K. Jyotsna Prabha, Principal of GDC, Hayathnagar, Special Invitee
- Dr T. Uttara Phalguni,CoordinatorfromfacultyofBotany
- Sri B. Srinivas, Asst Prof. of History
- Smt. S. Gowamma, Lecturer in Political Science
- Smt. K. Anuradha, Lecturer in Commerce
- Dr. Srinivas, Community Health Centre, Shadnagar, Ranga Reddy.
- E. Vamshi Priya, Forest Range Officer, Central Office, Hyderabad

Questionnaire:Thisisusedforacquiringbasicinformationrelatedtodifferentcategoriestobe coveredinaninstitution.

CheckList:Thisisusedforprovidingadetaileddlistingofallissuestobecoveredinaninstitution.

Photographs:Apicturespeaks1000words.UsePhotographstosupportfindingsand tohighlightgood practiceswithgeo-tagging.

ComprehensiveMethods:TheetailedmethodologyisrequiredforEnvironmental Audit and it must be conducted using comprehensive protocolsand fixed procedures to ensure collection and documentation of the requireddataandverificationoffactsbasedontheinformationprovided.

RelevantMeasuresandStandards:Thestandardmeasurescouldbeadjustedtoberelevanttotheorganizationoractivity beingaudited.

Written Reports: Reports should contain factual observations, reasoning andthedocumentationoftheprocesses.Theclarityandaccuracyshouldbe

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.

PROCEDURE		
Procedure	Description	Responsibility
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	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. 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.	Internal audit team

Internal Audit	Based on the questionnaire and checklists, the Audit is carried out in the form of interviews / physical visits and observations of the actual state of affairs. The team suggests further changes and correction as and when required.	Internal Audit team
Wrap-up meeting	An Audit Report is prepared which is examined together with the in-charges responsible for each area; minor areas are taken care of immediately, while a conclusion for the Audit as a whole is written down. 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 CCETS, Hyderabad.	Internal audit team
Follow-up	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.	Coordinator
Reporting	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.	External Audit team/ Principal/IQAC coordinator

AUDITINGFORWATERMANAGEMENT

1. Listout usesofwaterinyourcollege.

Ans: Drinking, Flushing in Toilets, watering the plants and for cleaning purposes.

2. Whatarethesourcesofwaterinyourcollege?

Ans: Bore wells

3. Howmanywellsarethereinyourcollege?

Ans: Two

4. No.ofmotorsusedforpumpingwaterfromeachwell?

Ans: Two

5. Whatisthetotal horsepowerofeachmotor?

Ans: 5HP

6. Whatisthedepthofeachwell?

Ans: 180 feet

7. Whatisthepresentdepthofwaterineachwell?

Ans: 30 feet

8. Howdoesyourcollegestorewater?

Ans: Stores in Overhead Tanks(03)

9. Quantityofwaterstoredinyouroverheadwatertank?(inliters)

Ans: 5000 Litres

10. Quantityofwaterpumpedeveryday?(inliters)

Ans: 4500 Litres per day

11. Ifthereiswaterwastage,specifywhy.

Ans: No

12. Howcanthewastagebeprevented/stopped?

Ans: Not Applicable.

13. LocatethepointofentryofwaterandpointofexitofwastewaterinyourCollege.

Ans: Not Applicable

14. Where does wastewater come from?

Ans: Not Applicable

15. Where does the wastewater go?

Ans: NA

16. What are the uses of wastewater in your college?

Ans: NA

17. What happens to the water used in your labs? Whether it gets mixed with groundwater?

Ans: Laboratory water gets drained through sanitation pipes. It does not get mixed with ground water.

18. Is there any treatment for the lab water?

Ans: No

19. Whether Green Chemistry methods are practiced in your labs?

Ans: No

20. Write down four ways that could reduce the amount of water used in your college.

Ans: i. Creating awareness amongst students about judicious usage of water.

ii. Closing the Taps properly after use

iii. Attending and fixing the leakage of water through taps or pipes promptly.

iv. Developing greenery will create cool environment thereby reducing the water intake.

21. Record water use from the college water meter for six months.

Ans : The college does not have Water Meter since there is no Municipal Water Connection as of now.

22. Bimonthly water charges paid to water connections if any

Ans: NA

23. No. of water coolers. Amount of water used per day? (in liters)

Ans: NA

24. No. of water taps. Amount of water used per day?

Ans: 16 Taps. 1000 litres per day.

25. No. of bathrooms in staff rooms, common, hostels. Amount of water used per day?

Ans: Two bathrooms for Staff, two bathrooms for Common usage, 1500 liters per day.

26. No. of toilet, urinals. Amount of water used per day?

Ans: 12. 1000 litres

27. No. of water taps in the canteen. Amount of water used per day?

Ans: NA

28. Amount of water used per day for garden use?

Ans: 800 litres per day.

29. No. of water taps in laboratories. Amount of water used per day in each lab?

Ans: 6 Taps. 50 litres per day.

30. Total use of water in each hostel?

Ans: NA

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.

S.No.	Purpose	No. of Litres of Water	Remarks
-------	---------	------------------------	---------

		consumption / day	
1	Water Taps	1000 L	
2	Bathroom Taps	1500 L	
3	Toilet Urinals	1000 L	
4	Garden Water	800 L	
5	Water Taps in Laboratories	200 L	
	Total =	4500 L	

32. Isthereanywaterusedforagriculturalpurposes?

Ans: No

33. Doesyourcollegeharvestrainwater?

Ans: Yes

34. Ifyes,howmanyrainwaterharvestingunitsarethere?(Approx.amount)

Ans: Two Units.

35. Howmanyofthetapsare leaky?Amountofwaterlost perday?

Ans: Nil

36. Aretheresignsremindingpeopleto turnoffthewater?

Ans: Yes

37. Isthereanywaterlesstoilets?

Ans: No

38. Howmanywaterfountainsarethere?

Ans: Nil

39. Howmanywaterfountainsareleaky?

Ans: NA

40. Is drip irrigation used to water plants outside? No

41. How often is the garden watered?

Ans: Alternate days

42. Quantity of water used to watering the ground?

Ans: Nil

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

Ans: NA

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

Ans: NA

45. Area of the college land without tree/building canopy.

Ans: One Acre

46. Is there any water management plan in the college?

Ans: Yes

47. Are there any water saving techniques followed in your college? What are they?

Ans: Waste water from R.O. Plant is being diverted to gardening and wash room.

48. Please share some idea for how your college could save more water.

Ans: By enhancing greenery, we can attract more precipitation (rainfall) and thus recharge ground water.

AUDITING FOR ENERGY MANAGEMENT

1. List the ways that you use energy in your college. (Electricity, electric stove, kettle, microwave, LPG, firewood, Petrol, diesel and others).

Ans: Electricity.

2. Electricity bill amount for the last year

Ans: Rs.9,200/-

3. Amount paid for LPG cylinders for last one year

Ans: NA

4. Weight of firewood used per month and amount of money spent? Also mention the amount spent for petrol/diesel/others for generators?

Ans: NA

5. Are there any energy saving methods employed in your college? If yes, please specify. If no, suggest some.

Ans: LED Bulbs are set up throughout the college.

6. How much money does your college spend on Energy such as electricity, gas, firewood, etc. in a month?

Ans: Rs. 767/-

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

Ans: Nil

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

Ans: NA

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

Ans: 8 Bulbs; 1 hour/day; 25 days in a month.

10. Energy used by each bulb per month? (kWh).

Ans: 80 kWh

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

Ans: Nil

12. Energy used by each bulb per month? (kWh).

Ans: NA

13. How many fans are installed in your college? Mention use (Hours used/day for how many days in a month)

Ans: 20 Fans; 3 hours/day; for 25 days in a month.

14. Energy used by each fan per month? (kWh).

Ans: 5.28 kWh

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

Ans: Nil

16. Energy used by each air conditioner per month? (kWh).

Ans: NA

17. How many electrical equipment including weighing balance are installed in your college? Mention the use (Hours used/day for how many days in a month)

Ans: Nil

18. Energy used by each electrical equipment per month? (kWh).

Ans: NA

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

Ans: 40 Computers; 3 hours/day for 25 days.

20. Energy used by each computer per month? (kWh).

Ans: 10.56 kWh

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

Ans: Nil

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

Ans: Nil

23. Energy used by each cooling apparatus per month? (kWh) Mention the

use(Hoursused/dayfor how manydaysinamonth)

Ans: 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 yourcollege installed? Mention the use (Hours used/day for how many days in amonth)

Ans: NA

25. Energyusedbyeachinverterpermonth?(kWh).

Ans: Nil

26. How many electrical equipment are used in different labs of your college?Mentiontheuse (Hoursused/day for howmanydaysinamonth)

Ans: Nil

27. Energyusedbyeachequipmentpermonth? (kWh)

Ans: NA

28. How many heaters are used in the canteen of your college? Mention theuse(Hoursused/dayfor how manydaysinamonth)

Ans: NA since there is no canteen in the college as of now.

29. Energyusedbyeachheaterpermonth?(kWh)

Ans: NA

30. No.ofstreetlightsinyourcollege?

Ans: Nil

31. Energyusedby eachstreetlightpermonth?(kWh)

Ans: NA

32. No.ofTVinyourcollegeandhostels?

Ans: Nil

33. Energyusedby eachTVpermonth?(kWh)

Ans: 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)

Ans: NA

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.

Ans: Solar Panel connected with Grid System of 5KV Capacity.

36. Do you run "switch off" drills at college?

Ans: Yes

37. Are your computers and other equipment put on power-saving mode?

Ans: Power saving mode.

38. Does your machinery (TV, AC, Computer, weighing balance, printers, etc.) run on standby mode most of the time? If yes, how many hours?

Ans: No.

39. What are the Energy Conservation methods adapted by your college?

Ans: Usage of LED Bulbs.

40. How many boards displayed for saving Energy awareness?

Ans: Three

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

Ans: NA

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

Ans: Installed 5KV capacity Solar Panel System connected with Power Grid in the college premises.

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 permonth (Watt X hours X Number X 1000 x 30) Incandescent bulb 60
watt CFL18W Microwave1000W Stove 3000WKettle2500W

AUDITINGFORWASTEMANAGEMENT

1. Whatisthetotalstrengthofstudents,teachersandnon-teachingstaffinyourcollege?

No. of Students:

427

No.ofTeachers:

17

No.of Non-teaching Staff: 5

Gents-4

Lady - 1

Total = 449

WhichofthefollowingareavailableinyourCollege?Give

areaoccupied : 5 acres

Gardenarea :1 acre

Garbagedump(number):

01

Playground area:

01Laboratory :

04

Kitchen : Nil

Canteen : Nil

Toilets (number): 04

Car/scooter shed area: 0.25 acre

Numberofclassrooms: 07

Officerroomsandothers(specify): 01

2. 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: Nil

Garbage heap: Nil

Public convenience Sewer line: 1

Stagnant water: Nil

Open drainage Industry - Nil

Bus/Railway station Market/shopping complex/public halls: Nil

WASTE

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

Ans: Papers, Wrappers.

4. How much quantity?

Ans: 250 gm / day.

5. Number or weight of -

waste Hazardous waste (toxic) Solid waste: Nil

Dry leaves: 100 gm

Canteen waste:

Liquid waste : Nil

Glass: Nil

Unused equipment:

Nil Medical waste if any:

Nil Napkins Others (Specify)

y)

6. Is there any waste treatment system in the college? No

7. Is there any treatment for toilet/urinal/sanitary napkin waste? Nil

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

9. Why waste is a problem? As the waste decomposes, it creates a foul smell and unhygienic atmosphere.

10. Whether waste is polluting ground/surface water? How? No. NA.

11. Whether waste is polluting the air of the college? How? No. NA.

12. How is the waste generated in the college managed? Methods

a. Composting b. Recycling c. Reusing d. Others (specify)

Ans: Composting and Recycling of plastic bottles.

13. How many separate boxes do you think you would need to put into a classroom to start a waste segregation and recycling campaign? 07

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

Green box: Wet Waste

Blue box: Dry waste.

15. Do you use recycled paper in College?

No.

16. Is there any waste wealth program practiced in the college?

Ans: Compost generated to the extent of < 1kg.

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

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

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

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

Ans: Awareness created to the community through NSS camps.

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

Ans: Yes; by sensitizing the students and other stakeholders by reducing, recycling, reusing and refusing the waste.

AUDITING FOR GREEN CAMPUS MANAGEMENT

1. Is there a garden in your college? Area?

Ans: Yes; 0.25 acre

2. Do students spend time in the garden?

Ans: Yes

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

Ans:

S.No.	Plant Species	No. of Plants	Remarks
1	<i>Ocimum sanctum</i>	5	
2	<i>Crossandra infundibuliformis</i>	10	
3	<i>Rheodiscolor species</i>	1	
4	<i>Chrysanthemum Species</i>	20	
5	<i>Tagetes erecta</i>	6	
6	<i>Hibiscus species</i>	8	
7	<i>Trachyspermum mammi</i>	4	
8	<i>Mirabilis jalapa</i>	4	
9	<i>Origanum majorana</i>	4	
10	<i>Cymbopogon citratus</i>	6	
11	<i>Madagascar periwinkle</i>	2	

12	<i>Piper betle</i>	4	
13	<i>Costus igneus</i>	2	

4. Suggest plants for your campus. (Trees, Vegetables, Herbs, etc.)

Ans: Mangifera indica, Tamarindus indica, Bauhinia variegata, Aloe vera, Ladies finger, Cabbage, Cauliflower,

5. List the species planted by the students, with numbers.

Ans: Coriander, Mint, Chrysanthemum.

6. Whether you have displayed scientific names of the trees in the campus?

Ans: Yes.

7. Is there any plantation in your campus? If yes, specify area and type of plantation.

Ans: Mulberry plantation.

8. Is there any vegetable garden in your college? If yes, show much area?

Ans: Yes; 150 square meters.

9. Is there any medicinal garden in your college? If yes, show much area?

Ans: Yes. 50 square meters.

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

Ans: Tomato, Spinach, Sword beans, clustered beans, bitter gourd, ridge gourd, brinjal, Colocasia, turmeric.

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

Ans: Bore water; 1000 liters per day

12. Who is in charge of gardens in your college?

Ans: Dr T Uttara Phalguni

13. Are you using any type of recycled water in your garden?

Ans: No

14. List the name and quantity of Pesticides and Fertilizers used in your gardens?

Ans: No

15. Whether you are doing Organic Farming in your college? How?

Ans: Yes; We are utilizing Jivamrut, fermented butter milk and Neem oil prepared by students.

16. Do you have any composting pit in your college? If yes, what are you doing with the compost generated?

Ans: Yes; We are using the compost for fertilizing the gardens.

17. What do you do with the vegetables harvested? Do you have any student market?

Ans: We are donating the vegetables harvested in the college vegetable garden to patients in the government hospital nearby as a best practice of the college.

18. Is there any botanical garden in your campus? If yes, give the details of campus flora.

Ans: Yes. Floral species – 13.

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

Ans: 2; Aloe vera, turmeric, Ocimum sanctum, Madagascar periwinkle.

20. Any threatened plant species planted/conserved?

Ans:

21. Is there an nature club in your college? If yes, what are their activities?

Ans: Yes. Arranged a snake rescue activity and created awareness about identification of venomous and nonvenomous snakes.

22. Is there any arboretum in your college? If yes, detail of the trees planted

Ans: No

23. Is there any fruit yielding plants in your college? If yes, detail of the trees planted.

Ans: No.

24. Is there any groves in your college? If yes, detail of the trees planted.

Ans: No

25. Is there any irrigation system in your college?

Ans: No.

26. What is the type of vegetation in the surrounding area of the college?

Ans: Delonix regia, Pongamia pinnata, Bauhinia variegata

27. What are the nature awareness programmes conducted in the campus?

Ans: Survey of Faunal diversity in the college premises.

28. What is the involvement of students in the green cover maintenance?

Ans: Students actively participate and maintain the gardens by watering, de-weeding, preparation of Jivamrut, planting of saplings etc.

29. What is the total area of the campus under tree cover? or under tree canopy?

Ans: 1 acre.

30. Share your ideas for further improvement of green cover.

Ans: We are planning to enhance the tree canopy by intensifying the plantation of more saplings on a regular basis and transform our college premises into a congenial atmosphere for pursuing under graduation courses more effectively.

AUDITING FOR CARBON FOOTPRINT

1. What is the total strength of students and teachers in your College? No. of

Students: 427

No. of Teachers: 17

No. of Non-teaching: 5

Gents: 4; Ladies: 1

Total: 22

2. Total Number of vehicles used by the stakeholders of the college ?
(perday)

Ans:5

3. No.ofcyclesused?

Ans:Nil

4. No. of two wheelers used? (average distance travelled and quantity of fuelandamountusedper day)

Ans: 5 Two wheelers; average distance 30 km; ½ liter; Rs.55/-.

5. No. of cars used? (average distance travelled and quantity of fuel andamountused per day)

Ans: Nil

6. No.personsusingcommon(public)transportation(averagedistancetravelledand quantityoffuelandamountusedper day)

Ans: 9; 60 km; Rs. 210/-

7. No. of persons using college conveyance by the students, non-teaching staffand teachers (average distance travelled and quantity of fuel and amount usedperday)

Ans: NA

8. NumberofParent-Teachermeetingsina year?Parentsturnedup(approx.)

Ans: One.

9. Numberofvisitorswithvehiclesperday?

Ans:10 visitors

10. Numberofgeneratorsusedperday(hours)?Givetheamountoffuelusedperday.

Ans: Nil

11. NumberofLPGcylindersusedinthecanteen?(Givetheamountoffuelusedper

day and amount spent).

Ans: NA

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

Ans: 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.

Ans: NA

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

Ans: Nil

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

Ans: Nil

16. Use of any other fossil fuels in the college (Give the amount of fuel used per day and amount spent).

Ans: NA

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

Ans: Using bicycles, car pooling etc.

18. Are the rooms in campus well ventilated? Yes

19. Window/Floor ratio of the rooms

Ans: Good

Carbon Footprint-Sample Report

- Petrol used by two wheelers/day - 229L
 - (Per person to and fro 40Kms = 1L) Fuel used by four wheelers (52 Persons) - 104 L
 - (Per person to and fro 40Kms = 2L)
Fuel for persons (total 2314 persons) travelling by common
 - Transportation = 184L (4L x 50 persons) Tot
- al fossil fuel use is 517L /day

Total fuel cost per day for transportation = Rs.36190/- (517L x Rs70)

Cost of stakeholder transportation per month (Rs.36190 x 22 days) - Rs.796180

Water management

SL NO	PARAMETERS	Response	Remarks
1	Source of water	Borewell	
2	No. of Wells	02	
3	No. of motors used	02	
4	Horsepower - Motor	5 HP	
5	Depth of well - Total	180 feet	
6	Water level	30 feet	
7	Number of water tanks	04	
8	Capacity of tank	1500 liters each	
9	Quantity of water pumped every day	5000 Litres	
10	Any water wastage/why?	No	
11	Water usage for gardening	800 Litres	
12	Waste water sources	Nil	
13	Use of wastewater	Diverted to trees	
14	Fate of wastewater from labs	Drainage	
15	Whether wastewater from labs mixed with groundwater	No	
16	Any treatment for lab water	No	
17	Whether any green chemistry method practiced in labs	No	
18	No. of water coolers	Nil	
19	Rainwater harvest available?	Yes	
20	No. of units and amount of water harvested	02 & 500 gallons	
21	Any leaky taps	No	
22	Amount of water lost per day	3 liters	
23	Any water management plan used?	Yes;	

24	Anywatersavingtechniquesfollowed?	Rain Water Harvesting Pits in vogue	
25	Arethereanysigns remindingpeoplestoturnoffthe water?	Yes, affixed near Taps	

Resultsofwaterquality-I

Parameters	Bore Well water	Municipal Tap water	Standard value(BIS)
DissolvedOxygen(mg/l)	7 mg/lit		6-8
Acidity(mg/l)	250mg/lit		200
Alkalinity(mg/l)	168 mg/lit		200
Chloride(mg/l)	176 mg/lit		250
Hardness(Total)	288		200
Conductivity(μs)	781		
Ph.	6.86		6.5-8.5
TotalDissolvedSolids(ppm)	508		500
Salinity(ppt)	0		
Totalcoliform	0		0
Fecalcoliform	0		0

Water Quality Analysis (Biological) Report of the college – II(withPhotographic evidence)

S.No	Parameter/ WHO permissible level	Zooplankton (No of Samples/Sites)	Methodology
1	Protozoan(Ciliates)		
2	Rotifers		
3	Ostracods		
4	InsectLarvae		
5	WaterFleas		
6	Bivalves		
7	Snails		
8	Mussels		

9	AnyOther(Specify)		
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**Water Quality Analysis (Biological) Report of the college –
III(withPhotographicicevidence):**

S.No	Phytoplanktons	Scientific Name andnumber	Methodology
1	Diatoms(Bacillariophyceae)		
2	Dinoflagellates(Dinophyceae)		
3	Coccolithophores(Pry mnesiophyceae)		
4	Greenalgae(Chlorophyceae)		
5	Cyanobacteria (earlier Blue- greenalgae)		
6	Others(specify)		

ENERGYAUDIT

RoomNo./n ame	Electrical Device/Items	Number	Power	usage time(hour/ day)

• **Wastemanagement**

Approximatequantityofwastegeneratedperday(inkg)

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

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

Canteen/kitchen				
Approx.	Biodegradable	Non - biodegradable	Hazardous	Others
<1Kg				
2-10Kg				
>10Kg				

• **How the waste generated in the college is managed?**

A) Composting/Vermicomposting	Yes/No	Remark
B) Recycling		
C) Reusing		
D) Other ways		

• **Waste generated in the college?**

E-waste		
Hazardous waste		
Solid waste		
Dry leaves		
Canteen waste		
Liquid waste		
Glass		
Unused Equipment		
Napkins		
Others (specify)		

Do you use recycled paper in college?	
Any waste management methods used?	

EnergyAuditSampleReport

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	CFL	63	14	882	0.882	4	3.528	25	88.2
2	TUBE	272	38	10336	10.336	4	41.344	25	1033.6
4	LEDBULB	97	9	873	0.873	4	3.492	25	87.3
5	LED TUBE	42	20	840	0.84	4	3.36	15	50.4
6	PROJECTOR	10	280	2800	2.8	1	2.8	25	70
7	SPEAKERS	36	10	360	0.36	1	0.36	25	9
8	FAN	233	60	13980	13.98	4	55.92	20	1118.4
9	COMPUTER	140	250	35000	35	4	140	20	2800
10	LAPTOPS	10	50	500	0.5	4	2	20	40
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	7	150	1050	1.05	24	25.2	30	756
18	TABLE FAN	2	55	110	0.11	2	0.22	25	5.5
19	MIXER GRINDER	2	750	1500	1.5	2	3	15	45
20	OVEN	3	1500	4500	4.5	2	9	10	90
22	CENTRIFUGE	2	850	1700	1.7	0.25	0.425	8	3.4
23	AUTOCLAVE	1	1700	1700	1.7	1	1.7	4	6.8

24	ULTRASOUND	1	700	700	0.7	0.25	0.175	5	0.875
25	LAMINAR FLOW	1	600	600	0.6	1	0.6	15	9
26	EXHAUST FAN	1	32	32	0.032	4	0.128	25	3.2
27	IRONBOX	2	2000	4000	4	0.25	1	15	15
28	SEWING MACHINE	6	100	600	0.6	4	2.4	25	60
29	COLOUR BULB	13	60	780	0.78	1	0.78	5	3.9
30	INCUBATOR	2	40	80	0.08	4	0.32	25	8
31	DISTILLATION UNIT	1	1000	1000	1	1	1	12	12
32	SANITARY INCINERATOR	6	1200	7200	7.2	1	7.2	25	180
33	CCTVDVR	24	10	240	.24	24	5.76	30	720
	Total Consumption per month						9515.15 kW/hr		

Faunal diversity in college campus (with Photographic evidence)

Faunal group	Scientific name	Number (If enumeration is done)	Seasonality
Spiders	<i>Peucetiaviridans</i>	01	
Moths & butterflies	<i>Papiliodemoleus</i> <i>Appiasalbina</i>		
Other insects: (Dragon Flies, Bees, Wasps, Bugs, and Beetles etc..)	<i>Harmonia axyridis</i> (Pallas)	40	
	<i>Diplacodes trivialis</i>	100	
	<i>Schistocerca gregaria</i>	26	
Annelids	<i>Megascolex</i> species	50	
Other Arthropods			
Amphibians			
Reptiles	<i>Ptyas mucosa</i>	2	Summer

Birds	<i>Columba livia</i>	10	Summer
	<i>Passer domesticus</i>	25	
	<i>Turdoides malcolmi</i>	02	
	<i>Charadrius alexandrinus</i>	02	

Mammals	Canis lupus familiaris B	15	
Anyother(specify)			

**AirqualityDetermination:
AirQualityIndex(232):**

NO ₂	5
NO	
O ₃	20
PM2.5	118
PM10	124
CO	436
Humidity	17%
BarometricPressure	1013.0 hPa
WindSpeed	17kph
WindDirection	107.0 degrees
SunRise	6:37 am
SunSet	6:23 pm

MeasurementsofNoiselevelinandaroundthecollege

S.No	place(S)	Measurements (Durationinsec onds)	Minimum (dBA)	Maximum (dBA)	Average (dBA)
1	Library	NA	NA	NA	NA
2	Canteen	NA	NA	NA	NA
3	Playground				
4	Auditorium	NA	NA	NA	NA
5	ScienceBlock				
6	AnyOther(Specify)				

Ifanyeco-friendlyorrestorationactivitiesconducted,pleasespecif

GRADING FOR ENVIRONMENTAL AUDIT REPORT

S.NO	COMPONENTS FOR ASSESSMENT	MARKS	GRADES
1	Energy audit	20	A+ :91-100
2	Waste audit	15	
3	Water audit	15	
4	Landscape or Environmental audit	15	A :81-90
5	Carbon footprint & Oxygen emission audit	15	
6	Green activities (conduction of seminars/conferences/workshops/student competitions/awareness programmes/observation of environmental related day etc.)	10	B+ :71-80
7	Student clubs (Environmental club/Green club/Nature club/Biodiversity club/ECO Club/Friends and Fauna Club/Science club etc.) activity annual report	10	B :61-70
	Total	100	C :51 -60

for Commissioner of Collegiate Education