

GOVT DEGREE COLLEGE BODHAN

Dist Nizamabad – 503185
Affiliated to Telangana University



GREEN AUDIT REPORT 2021-2022

Submitted By

**INTERNAL QUALITY ASSURANCE CELL
(IQAC)**

GOVT.DEGREE COLLEGE -BODHAN

NIZAMABAD – TELANGANA

File No.BDN-GEN/64/2021-O/o PRINCIPAL-GDC-BDN-CE

PROCEEDINGS OF THE PRINCIPAL GOVT. DEGREE COLLEGE, BODHAN
DIST: NIZAMABAD

Present: S.Ranga Rathnam, M.Sc,

Sub: GDC Bodhan – Quality Initiatives of GDCs –Green Audit for all
GDCS – Constitution of College level Committee – Reg.

Ref: CCETS proc File.No. CCE-AC/QLTY/NAAC/1/2021-ACADEMIC CELL
Date: 23.04.2021

In compliance with the CCETS proceedings under reference cited, the undersigned is pleased to constitute College Level Committee for Green Audit under Quality Initiatives of GDCs with the following members for the academic year 2021-22

S.No	Designation	Name of the Member
1	Chairman	S. Ranga Rathnam Principal GDC Bodhan
2	External member	A Laxminarayana Principal Girraj Govt College Nizamabad
3	Convener	G. Naveen Kumar Contract Lecturer in Botany
4	Members	1 V. Prabhu Contract lecturer in Zoology 2 B. Prasad Contract Lecturer in Mathematics
5	Student volunteers	1. S. Balaraju III BZC EM 2. B. Arun III BZC TM 3. M. Mounika III BZC EM 4. R. Ghanshyam III BZC EM

The audit committee is responsible for conduct of audit for every two years, evaluation of the audit program and submission of an audit report in the prescribed formats to be sent for state level committee.

**Signed by Ranga Rathnam
Sepuri**

Date: 02-05-2021 18:02

Reason: Approval (CAC)

To
The Members
Copy to Office

Proceedings of the Principal, GOVT. DEGREE COLLEGE-BODHAN

Present: Sri. S. RANGA RATHNAM, M.Sc.,

Sub: Appointment of Green Audit College Level committee for A.Y 2020-21 – Orders – Issued

Ref: CCE-AC/QLTY/NAAC/1/2021-ACADEMIC CELL Dated 23- April-2021

ORDER: The undersigned is pleased to appoint the following staff members in the Green Audit for the A.Y 2020-21.

S.No.	Name of the Faculty	Designation
1	S.RANGA RATHNAM Principal GDC Bodhan	Chairman
2	A LAXMIARAYANA Principal Girraj Govt.College –N.Z.B.	External Member
3	G.NAVEEN KUMAR	Convener
4	V.PRABHU Lecturer in Zoology	Member
5	B.PRASAD Lecturer in Mathematics	Member
6	S.Balraju III BZC E/m B. Arun III BZC T/m M.Mounika III BZC E/m R. Ghanshyam III BZC E/m	Student Volunteers

The above mentioned Faculty members are instructed to do the Green Audit in our college and submit the report to Principal.

Principal

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INTRODUCTION:

Green Audit is a process of systematic identification, quantification, recording, reporting and analysis of components of environmental diversity of an institute. It aims to analyse environmental practices within and outside of the concerned place, which will have an impact on the eco-friendly atmosphere. Green audit is a valuable means for a college to determine how and where they are using the most energy or water or other resources; the college can then consider how to implement changes and make savings. It can create health consciousness and promote environmental awareness, values and ethics. It provides staff and students better understanding of Green impact on campus. If self-enquiry is a natural and necessary outgrowth of a quality education, it could also be stated that institutional self-enquiry is a natural and necessary outgrowth of a quality educational institution. Thus it is imperative that the college evaluate its own contributions toward a sustainable future. As environmental sustainability is becoming an increasingly important issue for the nation, the role of higher educational institutions in relation to environmental sustainability is more prevalent.

The rapid urbanization and economic development at local, regional and global level has led to several environmental and ecological crises. On this background it becomes essential to adopt the system of the Green Campus for the institutes which will lead for sustainable development and at the same time reduce a sizable amount of atmospheric CO₂ from the environment. The National Assessment and Accreditation Council, New Delhi (NAAC) has made it mandatory that all Higher Educational Institutions should submit an annual Green Audit Report. Moreover, it is part of Corporate Social Responsibility of the Higher Educational Institutions to ensure that they contribute towards the reduction of global warming through carbon footprint reduction measures.

ABOUT THE COLLEGE

Government Degree College, Bodhan was established in the year 1983, as a co-education institution with the mission of imparting higher education in the region for the upliftment of deprived sections of students who specially hail from rural areas and inculcating the values of integrity, patriotism, leadership quality and dignity of labour among the students. The college has a very reputed and elated alumni spread in diverse fields and serving in different positions in both public and private sector in the society.

Being a public institution, Government Degree College, Bodhan is functioning under the Department of Higher Education and Commissionerate of Collegiate Education of the Telangana State and is affiliated to the Telangana University. It is a multi faculty college having Science, Arts and Commerce Programs at Under Graduate level. The syllabus offered by various Programs is prepared by the Board of Studies of the affiliated University. Environmental Studies, Human values & Professional Ethics, Gender Sensitization are taught as compulsory courses at Under Graduate level.

In view of local demand the college is offering B.A. and B.Com, Urdu medium programmes, benefiting the minority students apart from B.A, B.Com and B.Sc. programmes in telugu and English medium, specially girls to acquire higher degree and achieving academic excellence. The college is also offering M.Com PG programme from 2016-17. The institute was assessed and certified to be in accordance with the requirements of the quality standards ISO 9001-2015, by HYM International Certification Pvt. Ltd.

The college has unique recognition of achieving State Best Teacher Award consecutively for three years i.e. 2018, 2019 and 2020.

Vision

“To provide a quality education system to develop knowledge and skills, to create competent professionals and responsible citizens through integration of teaching and learning”

To enrich students with professional and educational skills by providing best possible infrastructure and be a centre of excellence and leader in providing the higher education to transform the students into global competitors and achievers. To inculcate dignity of labour, creativity and ethical approach for broad understanding of the life and to build up nationalism through personality development.

Mission

- To maintain a conducive environment for academic excellence, research and entrepreneurship to prepare competent, ethical and socially responsible citizens of tomorrow
- Optimum utilization of innovative and dynamic learning opportunities for all round development.
- Application of acquired knowledge and skills to lead productive lives and to become promising and contributing members of the Community.

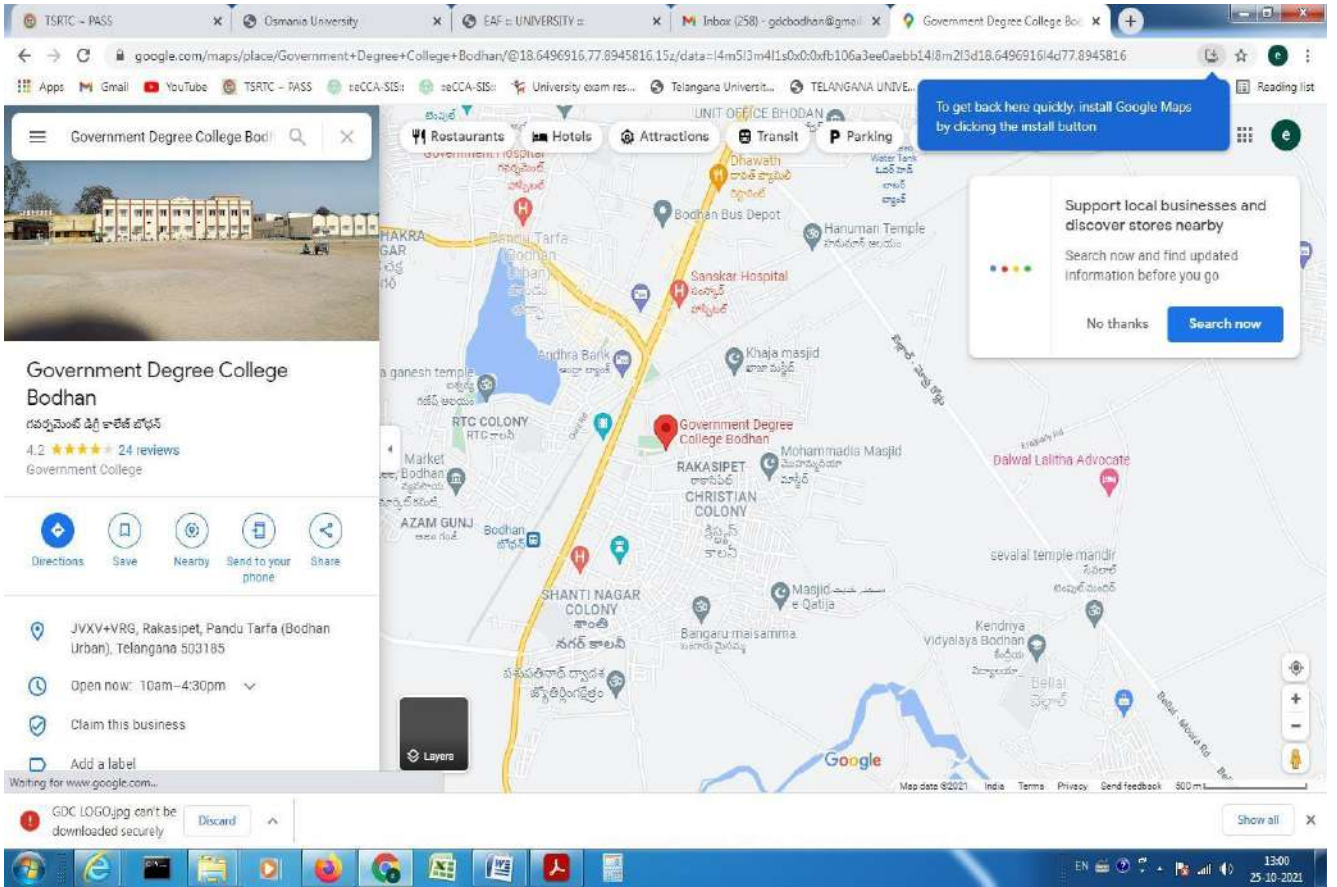


Fig.1. Location of GOVT.DEGREE COLEGE - BODHAN

OBJECTIVES OF GREEN AUDIT

The main objective of this green audit is to assess the environmental quality and the management strategies being implemented in Govt. Degree College, Bodhan, Nizamabad(dist.)

The specific objectives are:

1. To assess the quality of the water and soil in the Govt. Degree college campus
2. To monitor the energy consumption pattern of the college
3. To quantify the liquid and solid waste generation and management plans in the campus.
4. To assess the carbon foot print of the college
5. To assess whether the measures implemented by Degree College, Bodhan have helped to reduce the Carbon Footprint.
6. To impart environment management plans to the college.
7. Providing a database for corrective actions and future plans.
8. To assess whether extracurricular activities of the Institution support the collection, recovery, reuse and recycling of solid wastes.
9. To identify the gap areas and suggest recommendations to improve the Green Campus status of the Govt. Degree College.

TARGET AREAS OF GREEN AUDITING

Green audit forms part of a resource management process. Although they are individual events, the real value of green audit is the fact that they are carried out, at defined intervals, and their results can illustrate improvement or change over time. Eco-campus concept mainly focuses on the efficient use of energy and water; minimize waste generation or pollution and also economic efficiency.

All these indicators are assessed in the process of “Green Auditing of this educational institute”. Eco-campus focuses on the reduction of contribution to emissions, procure a cost effective and secure supply of energy, encourage and enhance energy use conservation, promotes personal action, reduce the institute’s energy and water consumption, reduce wastes to landfill, and integrate environmental considerations into all contracts and services considered to have significant environmental impacts. Target areas included in this green auditing are water, energy, waste, green campus and carbon footprint.

Auditing for Water Management

Water is a natural resource; all living organisms depend on water. While freely available in many natural environments, in human settlements potable (drinkable) water is less readily available. Groundwater depletion and water contamination are taking place at an alarming rate. Hence it is essential to examine the quality and usage of water in the college. Water auditing is conducted for the evaluation of facilities of raw water intake and determining the facilities for water treatment and reuse. The concerned auditor investigates the relevant method that can be adopted and implemented to balance the demand and supply of water.

Auditing for Energy Management

Energy conservation is an important aspect of campus sustainability which is also linked with carbon foot print of the campus. Energy auditing deals with the conservation and methods to reduce its consumption related to environmental degradation. It is therefore essential that any environmentally responsible institution examine its energy use practices.

Auditing for Waste Management

Human activities create waste, and it is the way these wastes are handled, stored, collected and disposed of, which can pose risks to the environment and to public health. Pollution from waste is aesthetically displeasing and results in large amounts of litter in our communities which can cause health problems. Solid waste can be divided into three categories: bio-degradable, non-biodegradable and hazardous waste. Bio-degradable wastes includes food wastes, canteen waste, wastes from toilets etc. Non-biodegradable wastes include what is usually thrown away in homes and schools such as plastic, tins and glass bottles etc. Hazardous waste is waste that is likely to be a threat to health or the environment like cleaning chemicals, acids and petrol. Unscientific management of these wastes such as dumping in pits or burning them may cause harmful discharge of contaminants into soil and water supplies, and produce greenhouse gases contributing to global climate change respectively. Special attention should be given to the handling and management of hazardous waste generated in the college. Bio-degradable waste can be effectively utilized for energy generation purposes through anaerobic digestion or can be converted to fertilizer by composting technology. Non-biodegradable waste can be utilized through recycling and reuse. Thus the minimization of solid waste is essential to a sustainable college. The auditor diagnoses the prevailing waste disposal policies and suggests the best way to combat the problems.

Auditing for Green Campus Management

Trees play an important ecological role within the urban environment, as well as support improved public health and provide aesthetic benefits to cities. In one year, a single mature tree will absorb up to 48 pounds of carbon dioxide from the atmosphere, and release it as oxygen. The amount of oxygen released by the trees of the campus is good for the people in the campus. So while you are busy studying and working on earning those good grades, all the trees in campus are also working hard to make the air cleaner for you.

Auditing for Carbon Footprint

Burning of fossil fuels (such as petrol) has an impact on the environment through the emission of greenhouse gases into the atmosphere. The most common greenhouse gases are carbon dioxide, water vapour, methane, nitrous oxide and ozone. The release of carbon dioxide gas into the Earth's atmosphere through human activities is commonly known as carbon emissions. Vehicular emission is the main source of carbon emission in the campus, hence to assess the method of transpiration that is practiced in the college is important.

METHODOLOGY ADOPTED

Onsite Visit

Four day field visit was conducted by the Green Audit Team . The key focus of the visit was on assessing the status of the green cover of the Institution, their waste management practices and energy conservation strategies etc. The sample collection (water, soil) was carried out during the visits. The water samples from two open wells and two tap water sources were taken and soil samples from three different places of the campus was collected. The sample collection, preservation, and analysis were done in the scientific manner as prescribed by the standard procedures.

Focus Group Discussion

The Focus Group discussions were held with the Eco-club members, staff members and the management focusing various aspects of Green Audit. The discussion was focused on identifying the attitudes and awareness towards environmental issues at the institutional and local level.

Energy, waste management and Carbon foot print analysis Survey

With the help of teachers and students, the audit team has assessed the energy consumption pattern and waste generation, disposal and treatment facilities of the college. The monitoring was conducted with a detailed questionnaire survey method.

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

COLLEGE PROFILE

Name of the College : **Govt. Degree College -BODHAN**
Address : **RAKASIPET -BODHAN**
Contact Info : **9154806820**
Campus Area : **7.75 ACRES**
The built-up area of the college: **1.07SQ. ACRES**

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

The Student and faculty strength of the college:

Strength	Male	Female	Total
No of students	279	387	666
No of Teaching staff	14	3	17
No of Non-Teaching staff	7	1	8

Physical Structure

The available land of the college: 07.75 **ACRES**

The built-up area of the college: 1.07SQ. **ACRES**

No. of Class Rooms	27
No. of Laboratories	05
No. of Conference halls	01
Library Halls	04
Auditorium	NIL
Canteen	01
Any other(please specify)(Toilets)	06
Objectives:	<ul style="list-style-type: none"> ➤ Environmental risk assessment ➤ Waste minimization and environmental pollution control plans. ➤ The optimal utilization of energy, water and other natural resources. ➤ Recycling programs and product life considerations. ➤ Emergency plans and procedures.
Prepared by:	Green Audit College Level Committee
Approved by:	Green Audit College Level Committee
Remarks:	GOOD
FORMS AND SUPPORT MATERIAL	
Questionnaire document ref. name/no.:	Enclosed
Checklist for Environmental Audit document ref. name/no.	
Additional forms and support material:	

AUDITING FOR WATER MANAGEMENT

1. List out uses of water in your college.

- Drinking
- Cleaning
- Toilets
- Laboratories
- Garden
- Canteen

2. What are the sources of water in your college?

ANS: Ground water

3. How many wells are there in your college?

ANS: There are 2 bore wells.

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

ANS: TWO motors are being used for two bore wells

5. What is the total horsepower of each motor?

ANS: 3HP and 2 HP

6. What is the depth of each well?

ANS: 300 and 300 feet

7. What is the present depth of water in each well?

ANS: 120 feet approximately.

8. How does your college store water?

ANS: Water from the bore well is stored in 2 overhead water tanks.

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

ANS: 1000 Liter capacity (2X1000) Liter

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

ANS: 5000 Liters

11. If there is water wastage, specify why.

ANS: Some quantity of water comes from RO water plant during the filtration process. That water is used for the plants.

12. How can the wastage be prevented / stopped?

ANS: Regular maintenance of RO water plants could minimize the waste water output from the plant.

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

ANS: Point of entry – Nil

Point of Exit – RO plant to plants

14. Where does wastewater come from?

ANS: RO water plant

15. Where does the waste water go?

ANS: To the plants

16. What are the uses of waste water in your college?

ANS: The waste water from RO plant and water coolers is used for watering the plants

The waste water from labs, canteen enters the drainage.

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

ANS: The used water from labs directly enters into drainage and that does not get mixed with ground water.

18. Is there any treatment for the lab water?

ANS: No. We have no waste water treatment plant or special equipment for treating waste water from laboratories.

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:

- a) Regular **checkup toilets** and labs for leaky taps and **fixing** them immediately.
- b) Installation of **Aerators** which reduce the amount of water flowing from the tap by up to 50%, while maintaining the pressure.
- c) Urinal upgrades: fitting efficient **automatic flush controls** on urinals to turn on the water control when it is required.

d) Constituting a **water team** with staff and students to monitor the wastage of water in the college, canteen and hostel.

e) Conducting **awareness programs** to students and staff on water conservation in the college.

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

ANS: Not Available

22. Bimonthly water charges paid to water connections if any

ANS: Nil.

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

ANS: 2 water coolers with 40 liter capacity each

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

ANS: 15 taps. Approximately 1000 Liter water is being used per day.

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

ANS: Total 6 bathrooms in all staff rooms, common, hostels. Amount of water used per day is 1500 Liters approximately.

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

ANS: Total 6 Toilet, urinals. The amount of water used per day is approximately 1500 Liters.

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

ANS: There are 2 taps in the canteen. Around 200 liters of water used per day.

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

ANS: 1000 liters of water from RO plant and water coolers used for garden.

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

ANS: Total 5 water taps are there in the labs. Daily 60 liters of water used in the labs.

30. Total use of water in each hostel?

ANS: nil.

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.

ANS:

S. No.	Item	Quantity of water used per day in liters
1	Toilets	1000
2	Labs	1000
3	R.O. plant	2000-
4	Hostel	nil
5	Canteen	1000
	Total	5000

32. Is there any water used for agricultural purposes?

ANS: No.

33. Does your college harvest rain water?

ANS: Yes

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

ANS: There are 3 rain water harvesting units.

35. How many of the taps are leaky? Amount of water lost per day?

ANS: Nil.

36. Are there signs reminding people to turn off the water? Yes / No

ANS: Yes

37. Is there any waterless toilets?

ANS: No.

38. How many water fountains are there?

ANS: Nil

39. How many water fountains are leaky?

ANS: Nil

40. Is drip irrigation used to water plants outside? YES/NO

ANS: No.

41. How often is the garden watered?

ANS: Daily

42. Quantity of water used to watering the ground?

ANS: 1500 Liters.

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

ANS: Nil. (There is no college bus)

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

ANS: Nil

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

ANS: 5 Acre land

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:

- Regular checkup of taps for leakages and repairing the damaged taps.
- Regular maintenance of RO Plant.
- Putting signs to remind the students and staff to turn off the water.

48. Please share Some IDEA for how your college could save more water.

ANS:

- Installation of Aerators to taps that save around 50% of water.
- Automatic flush controls in urinals.
- Conducting awareness programs for students and staff.

Water analysis-Results of water quality

Parameters	Bore Well water	Municipal Tap water	Standard value (BIS)
Dissolved Oxygen (mg/l)	✓		6-8
Acidity (mg/l)	✓		200
Alkalinity (mg/l)	✓		200
Chloride (mg/l)	✓		250
Hardness (Total)	✓		200
Conductivity (μs)	✓		
Ph.	✓		6.5-8.5
Total Dissolved Solids (ppm)	✓		500
Salinity (ppt)	✓		
Total coliform	✓		0
Fecal coliform	✓		0

Water analysis –various samples collected from college premises

S.No	DO Mg/l	Alkalinity Mg/l	Chlorides Mg/l	Total Hardness	Conductivity μ/s	pH	TDS ppm	Temp 0C
1	4	36	213	146	562.8	7	105	28
2	5	40	284	124	410.6	7	103	28
3	5	62	305.3	118	450.6	7	103	29

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).

Ans: Electricity, Petrol/diesel, Microwave.

2. Electricity bill amount for the last year

Ans: Rs.248000 /- June-20 to May-21

3. Amount paid for LPG cylinders for last one year.

Ans: Rs.970/-

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

Ans: Nil

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

Ans: No, Suggested to instal solar panels to generate electricity.

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

Ans: ₹22450.8/-

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 4hours x number of bulbs = Kwh).

Ans: Nil

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

Ans: 20 10hr/day, 28 days/month

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

Ans:81.4

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

Ans: Nil

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

Ans: Nil

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

Ans: 240 10hr/day, 28 days/month

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

Ans: 2140.4 kWh/month

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

Ans: 05, 10hr/day, 15 days/month

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

Ans: 7300 kWh/month

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

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

Ans: A separate sheet is attached many days in a month)

Ans: A separate sheet is attached

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

Ans: 150

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

Ans: 13122 kWh/month

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

Ans: 3 10hr/day, 25 days/month

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

Ans: A separate sheet is attached

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

Ans: A separate sheet is attached

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)

Ans: A separate sheet is attached.

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

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)

27. Energy used by each equipment per month? (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)

Ans: Nil

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

Ans: Nil

30. No of street lights in your college?

31. Energy used by each street light per month? (kWh)

32. No of TV in your college and hostels?

Ans: Nil

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

Ans: Nil

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: A separate sheet is attached.

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:No

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

Ans: Yes

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

Ans: 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?

Ans: Yes, A separate sheet is attached.

39. What are the energy conservation methods adapted by your college?

Ans: Installing LED bulbs, Use energy efficient appliances, drive less, walk more, switch off appliances when not in use, Plant shady landscaping, using energy efficient windows, Using bicycles, Get energy audit done every year.

40. How many boards are displayed for saving energy awareness?

Ans: 5

41. How much ash is collected after burning firewood per day in the Canteen?

Ans: Nil

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

- Ans:
- a) Employment of solar panels and other renewable energy sources.
 - b) Conduct more save energy awareness programs for students and staff.
 - c) Replace computers with LED monitors.
 - d) More energy efficient fans should be replaced.
 - e) Observe a power saving day every year.
 - f) Automatic power switch off systems may be introduced

Sl. No	Electrical appliances/instruments	Number	Power (W)/	Tot al power(W)	kW	Operation	kW/hr.	No.of days in month	Total consumption per month
1	TUBE	150	20	3000	3	7	68	14	1904
2	LED BULB	19	15	285	0.585	10	5.85	28	163.8
3	PROJECTOR	6	300	1800	1.8	6	10.8	20	216
4	SPEAKERS	4	8	32	0.1	6	0.6	20	12
5	FAN	100	60	1600	15.18	10	1.6	28	457.6
6	COMPUTER	100	300	30000	30	10	30	25	750
7	LAPTOPS	4	60	240	2.4	10	2	20	40
8	PRINTERS	8	60	4800	4.8	10	4.8	25	120
9	PHOTOSTAT machine	6	800	1600	1.6	10	1.6	25	40
10	SCANNER	2	60	120	0.12	10	1.2	20	28
11	UPS	6	1200	7200	7.2	10	72	20	1440
12	A/C	5	8000	40000	40	10	40	15	600
13	REFRIGERATOR	3	200	600	0.6	24	0.6	30	180
14	TABLE FAN	3	55	165	0.16	10	0.16	15	24
15	CENTRIFUGE	1	4	4	0.004	6	0.024	20	0.48
16	EXHAUST FAN	4	32	128	0.128	10	0.128	28	3586
17	INCUBATOR	1	60	60	0.06	6	0.36	15	5.4
18	DISTILLATION UNIT	0	0	0	0	0	0	0	0
19	CCTV DVR	2	20	40	0.04	24	0.04	30	12
	Total consumption per month	400	12054	91674	94.12	189	175.32	398	9579.3

AUDITING FOR WASTE MANAGEMENT

S.No	Available List	Number	Area occupied
01	Garden	01	2 ACREAS
02	Playground	01	4 ACREAS
03	Toilets	6	
04	Class rooms	27	
05	Laboratory	5	
06	Car/ Scooter shed	NIL	
07	Office rooms	06	
09	Hostel	NIL	NIL
10	Canteen	01	80.118 Sq.mts
11	Auditorium	NIL	NIL

Municipal dump yard -----NO

Garbage heap ----- No

Public convenience sewer line No

Stagnant water ----- No

Open drainage Industry No

Bus/Railway station market/shopping complex/ public halls

Waste:-

Does your collage generate any waste? If so , what are they? Waste paper

How much quantity?----- Less than 1 kg

Number or weight E-waste Hazardous Waste (toxic) ----- No

Solid waste-.....No

Dry leaves ----Less than 1Kg per day

Canteen Waste ----- Tea cups and Papers

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 collage?----- No

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

1. What is the approximate quantity of waste generated per day? (in kilograms)officelaboratories canteens /kitchen - less than 1 kg
2. Why waste is a problem?-----Environmental pollution
3. Whether waste is polluting ground /surface water? How?----- No

4. Whether waste is polluting the air of the collage? How? ----- No
5. How is the waste generated in the collage managed?
Methods: - 1. Composting 2. Recycling 3. Reusing 4. Others (Specify)-composting
6. How many separate boxes do you think you would need to put into a class room to start a waste segregation and recycling campaign? 15 boxes
7. Do you use recycled papers in collage?----- No
8. Is there any waste wealth programme practice in the collage?----- No
Approx .Biodegradable non biodegradable hazardous others < 1kg
9. How would you spread the message of recycling to others in the community ?have you taken any initiatives? is yes , please specify No
10. Can you achieve zero garbage in your collage? (reduced, recycle, reuse refuse)if yes how?-No

Auditing for Waste Management

Human activities create waste, and it is the way these wastes are handled, stored, collected and disposed of, which can pose risks to the environment and to public health. Pollution from waste is aesthetically unpleasing and results in large amounts of litter in our communities which can cause health problems. Solid waste can be divided into three categories: bio-degradable, non-biodegradable and hazardous waste. Bio-degradable wastes includes food wastes, canteen waste, wastes from toilets etc. Non-biodegradable wastes include what is usually thrown away in homes and schools such as plastic, tins and glass bottles etc. Hazardous waste is waste that is likely to be a threat to health or the environment like cleaning chemicals, acids and petrol. Unscientific management of these wastes such as dumping in pits or burning them may cause harmful discharge of contaminants into soil and water supplies, and produce greenhouse gases contributing to global climate change respectively. Special attention should be given to the handling and management of hazardous waste generated in the college. Bio-degradable waste can be effectively utilized for energy generation purposes through anaerobic digestion or can be converted to fertilizer by composting technology. Non-biodegradable waste can be utilized through recycling and reuse. Thus the minimization of solid waste is essential to a sustainable college. The auditor diagnoses the prevailing waste disposal policies and suggests the best way to combat the problems.

METHODOLOGY ADOPTED

Onsite Visit

Four day field visit was conducted by the Green Audit Team . The key focus of the visit was on assessing the status of the green cover of the Institution, their waste management practices and energy conservation strategies etc. The sample collection (water, soil) was carried out during the visits. The water samples from two open wells and two tap water sources were taken and soil samples from three different places of the campus was collected. The sample collection, preservation, and analysis were done in the scientific manner as prescribed by the standard procedures.

Focus Group Discussion

The Focus Group discussions were held with the Eco-club members, staff members and the management focusing various aspects of Green Audit. The discussion was focused on identifying the attitudes and awareness towards environmental issues at the institutional and local level.

Energy, waste management and Carbon foot print analysis Survey

With the help of teachers and students, the audit team has assessed the energy consumption pattern and waste generation, disposal and treatment facilities of the college. The monitoring was conducted with a detailed questionnaire survey method.

AUDITING FOR GREEN CAMPUS MANAGEMENT

Trees play an important ecological role within the urban environment, as well as support improved public health and provide aesthetic benefits to cities. In one year, a single mature tree will absorb up to 48 pounds of carbon dioxide from the atmosphere, and release it as oxygen. The amount of oxygen released by the trees of the campus is good for the people in the campus. So while you are busy studying and working on earning those good grades, all the trees in campus are also working hard to make the air cleaner for you.

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

Ans: No

2. Do students spend time in the garden?

Ans: No

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

Plant Species recorded in the college campus.

Sl.No	Botanical Name	vernacular / common name	Family	No. of Species	Herb/ Shrub /Trees
1	<i>Polyalthia longifolia</i>	nara mamidi	Annonaceae	10	Tree
2	<i>Nerium oderum</i>	ganneru	Apocyanaceae	04	Shrub
3	<i>Phoenix dactylifera</i>	eetha	Arecaceae	01	Tree
4	<i>Tecoma stans</i>	bangaru gantalu	Bignoniaceae	08	Tree
5	<i>Peltophorum pterocarpum</i>	konda chita	Caesalpinaceae	62	Tree
6	<i>Terminalia mantaly</i>	Umbrella tree	Combritaceae	10	Tree
7	<i>Bauhenia purpurea</i>	devakanchanam	Caesalpinaceae	13	Tree

8	Casuarina equiseta	sarugudu	Casuarinaceae	01	Tree
9	Terminalia catappa	badam	Combretaceae	03	Tree
10	Kalanchoe brasiensis	Bryophyllum	Crassulaceae	15	Herb
11	Cycas bedomi	peritha	Cycadaceae	01	Tree
12	Phyllanthus emblica	usiri	Euphorbiaceae	01	Tree
13	Dalbergia latifolia	Indian rose wood	Fabaceae	01	Tree
14	Dalbergia sissoo	jittegi	Fabaceae	09	Tree
15	Pongamia pinnata	kanuga	Fabaceae	30	Tree
16	Aloe barbedens	kalabanda	Liliaceae	02	Herb
17	Hibiscus rosa sinensis	mandara	Malvaceae	01	Shrub
18	Azadirichta indica	vepa	Meliaceae	29	Tree
19	Albizia lebbek	dirishana	Mimosaceae	07	Tree
20	Pithecellobium dulce	seema chinta	Mimosaceae	02	Tree
21	Ficus religiosa	raavi	Moraceae	01	Tree
22	Psidium guajava	jama	Myrtaceae	02	Tree
23	Syzygium cumini	neredu	Myrtaceae	30	Tree
24	Rosa sinensis	rose	Rosaceae	01	Shrub
25	Thuja orientalis	thuja	Thujaceae	02	Shrub

26	<i>Tectona grandis</i>	teku	Verbenaceae	16	Tree
27	<i>Mannihot esculenta</i>	Cassava	Euphorbiaceae	21	Tree

4. Suggest plants for your campus. (Trees, vegetables, herbs, etc.)

S.No	Botanical Name	Trees/Vegetables / Herbs	Family
1	<i>Rauwolfia serpentina</i>	herb	Apocyanaceae
2	<i>Withania somnifera</i>	herb	Solanaceae
3	<i>Centella asiatica</i>	herb	Apiaceae
4	<i>Asclepia curassavica</i>	herb	Asclepdiaceae
5	<i>Mitragyna parviflora</i>	Tree	Rubiaceae
6	<i>Dichrostachys cinerea</i>	tree	Mimosoideae
7	<i>Bombax ceiba</i>	Tree	Bombacaceae
8	<i>Terminalia chebula</i>	Tree	Combretaceae
9	<i>Terminalia bellerica</i>	Tree	Combretaceae
10	<i>Givotia moluccana</i>	Tree	Euphorbiaceae
11	<i>Anacardium occidentale</i>	Tree	Anacardiaceae
12	<i>Annona muricata</i>	Tree	Anacardiaceae
13	<i>Annona cherimola</i>	Tree	Annonaceae
14	<i>Artabotrys hexapetala</i>	Climber	Annonaceae
15	<i>Rosmarinus officinalus</i>	herb	Lamiaceae
16	<i>Utricularia gibba</i>	herb	Lentibulariaceae

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

Sl no	Name of Plant	Habit	Family	Number of plants
1	<i>Psidium guajava</i>	tree	Myrtaceae	02
2	<i>Phyllanthus emblica</i>	herb	Euphorbiaceae	01
3	<i>Aloe vera</i>	herb	Liliaceae	04
4	<i>Ficus religiosa</i>	tree	Moraceae	01
5	<i>Nerium odorum</i>	shrub	Apocyanaceae	04
6	<i>Dalbergia latifolia</i>	tree	Fabaceae	01
7	<i>Dalbergia sissoo</i>	tree	Fabaceae	14
8	<i>Pongamia pinnata</i>	tree	Fabaceae	30
9	<i>Peltoforum pterocarpum</i>	tree	Fabaceae	62
10	<i>Tecoma stans</i>	shrub	Bignoniaceae	08
11	<i>Phoenix sylvestris</i>	tree	Arecaceae	01
12	<i>Casurina</i>	tree	Casuarinaceae	01
13	<i>Azadirachta indica</i>	tree	Myrtaceae	29
14	<i>Tectona grandis</i>	tree	Verbinaceae	16
15	<i>Albiziz lebbeck</i>	tree	Mimosaceae	07
16	<i>Syzygium cumini</i>	tree	Myrtaceae	30
17	<i>Terminalia catapa</i>	tree	Combritaceae	03
18	<i>Terminalia mantany</i>	tree	Combritaceae	10
19	<i>Eucalyptus</i>	tree	Myrtaceae	22
20	<i>Polyalthia longifolia</i>	tree	Annonaceae	10
21	<i>Monnihot esculenta</i>	tree	Euphorbiaceae	21
22	<i>Thuja orientalis</i>	tree	Thujaceae	02
23	<i>Bauhinia</i>	tree	Ceasalpinaceae	13
24	<i>Hibiscus rasasinensis</i>			01

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

Ans: Yes, Earlier the Scientific Names on the Name plates were displayed. But from June 2021 QR codes were assigned to the plants present in the campus



(A Student scanning Plant QR Code)



(Name plates arranged to the plants)

7. Are there any plantations on your campus? If yes, specify the area and type of plantation.

Ans : Yes.plantation around and in front of science block has been done, along with carrider of new building, prakruti vanam is also developed in front of new college building by municipal department (Telangana state government)

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 particular medicinal garden in the college, but few Medicinal plants are growing in the college premises.

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

No particular Vegetable garden in the college.

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

No

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

Department of Botany

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

No

14. List the name and quantity of pesticides and fertilizers used in your gardens?

Not using

15. Are you 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?

Yes. The manure was used for fertilising plants.

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

No

18. Is there any botanical garden on 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.**

Medicinal plants in the college campus

SL.No	Botanical Name	vernacular / common name	Family	No.of Species	Herb/ Shrub /Trees
1	<i>Polyalthia longifolia</i>	nara mamidi	Annonaceae	20	Tree
2	<i>Phoenix dactylifera</i>	eetha	Arecaceae	7	Tree
3	<i>Casuarina equisetata</i>	sarugudu	Casuarinaceae	6	Tree
4	<i>Terminalia catappa</i>	badam	Combretaceae	10	Tree
5	<i>Kalanchoe brasiliensis</i>	Bryophyllum	Crassulaceae	6	Herb
6	<i>Phyllanthus emblica</i>	usiri	Euphorbiaceae	6	Tree
7	<i>Clitoria ternata</i>	shankapushpi	Fabaceae	5	Creepers
8	<i>Pongamia pinnata</i>	kanuga	Fabaceae	16	Tree
9	<i>Aloe barbadensis</i>	kalabanda	Liliaceae	4	Herb
10	<i>Azadirachta indica</i>	vepa	Meliaceae	25	Tree
11	<i>Pithecellobium dulce</i>	seema chinta	Mimosaceae	4	Tree
12	<i>Syzygium cumini</i>	neredu	Myrtaceae	8	Tree

20. Any threatened plant species planted/conserved?

No

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. Are there any fruit yielding plants in your college? If yes, details of the trees planted.

Sl. No.	Botanical Name	vernacular / common name	Family	No.of Fruit yielding plants
4	<i>Phoenix dactylifera</i>	eetha	Arecaceae	01
11	<i>Psidium guajava</i>	jama	Myrtaceae	01
12	<i>Phyllanthus emblica</i>	usiri	Euphorbiaceae	01
15	<i>Terminalia catappa</i>	badam	Combretaceae	03
16	<i>Syzygium cumini</i>	neredu	Myrtaceae	30
17	<i>Pithecellobium dulce</i>	seema chinta	Mimosaceae	02

24. Are 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?

Ans: Dry deciduous type vegetation.

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

Routine Green Practices

Every year college celebrates Haritaharam plantation, World Environment Day, World Water Day and Ozone Day in the campus. The main focus of these programmes was to provide awareness to the students about the importance of the environment, its conservation and sustainable use of environmental resources. The programmes are conducted through seminars, poster presentation, quiz competition debates etc



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

Ans: Plantation Programme

Students are actively involved in Haritha haram plantation programme, NSS volunteers were watering the plants, protecting plants and made fencing to the plants

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

40%

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

Plantation and plant protection must be continued , Botanical garden must be established

AUDITING FOR CARBON FOOTPRINT

Burning of fossil fuels (such as petrol) has an impact on the environment through the emission of greenhouse gases into the atmosphere. The most common greenhouse gases are carbon dioxide, water vapour, methane, nitrous oxide and ozone. The release of carbon dioxide gas into the Earth's atmosphere through human activities is commonly known as carbon emissions. Vehicular emission is the main source of carbon emission in the campus, hence to assess the method of transportation that is practiced in the college is important.

- Petrol used by two wheelers/day=120 L
- (Per person to and fro 40 Kms=1L) Fuel used by four wheelers (4 Persons) - 16 L
- (Per person to and fro 40 Kms=2L) Fuel for persons (total 10 persons) travelling by common
- Transportation =120L (4L x 50 persons)

Total fossil fuel use is 120 L / day

Total fuel cost per day for transportation =Rs. 13200/- (120L x Rs 110)

Cost of stakeholder transportation per month (Rs.13200x22 days)- Rs.290400/-

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

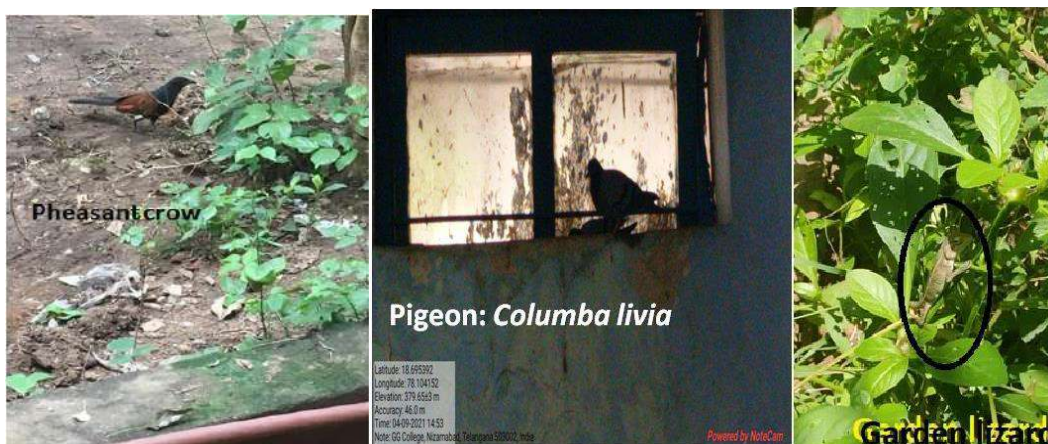
S.No	Phytoplanktons	Scientific Name and number	Methodology
1	Diatoms (Bacillariophyceae)		Microscopic
2	Dinoflagellates (Dinophyceae)		
3	Coccolithophores (Prymnesiophyceae)		
4	Green algae (Chlorophyceae)	Nitella, Spirogyra Cladophora Draparnldiopsis Eudorina Hydrodictyon	Microscopic
5	Cyanobacteria (earlier Blue-green algae)		
6	Others (specify)	Lingbya Navucula	Microscopic Microscopic

			
Nitella	Spirogyra	cladophora	Draparnldiopsis
			
Eudorina	Hydrodictyon	Lingbya	Navicula

Faunal Diversity of gdc bodhan

S.No.	Scientific name	Common name	Type
1.	<i>Pheretimaposthuma</i>	Earth worm	Annelid
2.	<i>Diplacodestrivialis</i>	Dragon fly	Arthropod
3.	<i>Papilio medon</i>	Butter fly	Arthropod
4.	<i>Latrodectus hesperus</i>	Spider	Arthropod
5.	<i>Agonopterix arenella</i>	Moths	Arthropod
6.	<i>Lepisma saccharinum</i>	Silver fish	Arthropod
7.	<i>Oebaluspugnax</i>	Rice sting bug	Arthropod
8.	<i>Coptotermesformosanus (Formosan subterranean)</i>	Termites	Arthropod
9.	<i>Episyrphus balteatus</i>	Orange striped Hoverflies	Arthropod
10.	<i>Anopheles</i>	Mosquitos	Arthropod
11.	<i>JulusabbreviatusMikan</i>	Julus	Arthropod
12.	<i>JulusacriculusKarsch</i>	Julus	Arthropod
13.	<i>Apis mellifera</i>	Honey bee	Arthropod
14.	<i>Harpaphehaydeniana</i>	Yellow spotted millipede	Arthropod
15.	<i>Solenopsisgeminata</i>	Fire ant	Arthropod
16.	<i>Acantherus Scudder</i>	Grass hopper	Arthropod
17.	<i>Scorpio maurus</i>	Scorpion	Arthropod
18.	<i>Praying mantises</i>	Praying mantis	Arthropod
19.	<i>OnthophagusgazellaFabricius</i>	Dung beetles	Arthropod
20.	<i>Daphnis nerii</i>	Army green moth	Arthropod
21.	<i>Vespula vulgaris</i>	wasps	Arthropod
22.	<i>Grylluspennsylvanicus</i>	Cricket	Arthropod
23.	<i>Coccinellamagnifica</i>	Lady beetles	Arthropod
24.	<i>Lampyridae</i>	Fire fly	Arthropod
25.	<i>Pilaglobosa</i>	Snail	Molluscan
26.	<i>Bufo bufo</i>	True toad	Amphibia
27.	<i>Rana tigrina</i>	Goduru frog	Amphibia
28.	<i>Hyla arborea</i>	Tree frog	Amphibia
29.	<i>Rhombophora</i>	Flying frog	Amphibia
30.	<i>Duttaphrynus melanostictus</i>	Asian common toad	Amphibia
31.	<i>Hemidactylus frenatus</i>	Lizards (House)	Reptiles
32.	<i>Calotes versicolor</i>	Garden lizard	Reptiles
33.	<i>Chamaeleon</i>	oosaravelli	Reptiles
34.	<i>Ptyas mucosa</i>	Rat Snakes	Reptiles
35.	<i>Naja naja</i>	Indian cobra	Reptiles
36.	<i>Viper russlii</i>	Raktapinjara	Reptiles
37.	<i>Bangarus</i>	krait	Reptiles
38.	<i>Varanus bengalensis</i>	Monitor lizard	Reptiles
39.	<i>Enhydra hydrys</i>	Water snake	Reptiles
40.	<i>Dendrophis</i>	Tree snake	Reptiles
41.	<i>Testudo</i>	Land tortoise	Reptiles
42.	<i>Bubo bubo</i>	Owl	Bird
43.	<i>Nectarinia minime</i>	Sun bird	Bird
44.	<i>Bubulcus ibis</i>	Cattle egret-Heron	Bird

45.	<i>Ardea alba</i>	White crane	Bird
46.	<i>Columba liviadomestica</i>	Pigeon	Bird
47.	<i>Passer domesticus</i>	Sparrow	Bird
48.	<i>Psittacula krameri</i>	Parrots	Bird
49.	<i>Eudynamys scolopaceus</i>	Indian black koel	Bird
50.	<i>Acridotherestrictis</i>	Myna	Bird
51.	Centropussinensis	Greater coucal	Bird
52.	<i>Corvussplendens</i>	crow	Bird
53.	<i>Clangahastata</i>	Eagle	Bird
54.	<i>Dendrocopus mahrattensis</i>	Wood pecker	Bird
55.	Coracias benghalensis	Indian roller	Bird
56.	Alcedoatthis	King fisher	Bird
57.	<i>Bubalus bubalis</i>	Buffalo	Mammal
58.	<i>Bostaurus</i>	cow	Mammal
59.	<i>Canis lupus familiaris</i>	Dog	Mammal
60.	<i>Funambulus palmarum</i> (<i>Sciuridae</i>)	Squirrel	Mammal
61.	<i>Rattus. rattus(black)</i>	Rats	Mammal
62.	<i>Rattus. norvegicus(brown)</i>	Rats	Mammal
63.	<i>Bandicataindica</i>	Rats	Mammal
64.	<i>Suncusmurinus</i>	shrew	Mammal
65.	<i>Rhesus macaque</i> (<i>Cercopithecidae</i>)	Monkey	Mammal
66.	<i>Felis domesiticus</i>	Cats	Mammal
67.	Herpestes	Mongoose	Mammal
68.	<i>Suss crofascrofa</i>	pig	Mammal





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	30	60	45
2.	Canteen	60	40	90	65
3.	Play ground	60	40	80	60
4.	Auditorium	nil	Nil	Nil	Nil
5.	CVRAMAN Block(scince)	60	32	65	48.5
6.	Abdhulkalam Black	60	30	62	46
7.	Art& commercs (Black)	60	35	66	60.5

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

GRADING FOR ENVIRONMENTAL AUDIT REPORT

S.NO	COMPONENTS FOR ASSESSMENT	MARKS	SCORE	GRADES
1	Energy audit	20	15	A+ : 91-100
2	Waste audit	15	11	
3	Water audit	15	13	
4	Landscape or Environment audit	15	14	A : 81-90
5	Carbon footprint & Oxygen emission audit	15	13	
6	Green activities (conduction of seminars/conferences/workshops/student competitions/awareness programmes/observation of environmental related days etc.	10	7	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	8	B : 61-70
	Total	100	81	C : 51 - 60

SUGGESTIONS AND RECOMMENDATIONS

Water Management

The water sources are safe in terms of contamination.

The wells can be recharged with rainwater from rooftops of buildings. The area of the rooftop is 33108.68m². Approximately 102532 m³ of water can be harvested from the roof area of the building.

Rainwater for laboratory purposes – Construction of a 10000L rainwater harvesting tank can satisfy the needs of the laboratory. The rain water can also be used as a source for drinking water.

Energy Management

The energy audit recommends to avoid the use of more energy consuming electrical appliances and to replace with more environment friendly and energy efficient appliances (for example five stars rated Air conditioner) in the college. The potential of renewable energy sources have to be explored. As the college has a very large roof area for installing solar panels so that it can be effectively used for generating power. The college has started steps in installing the solar panels for the office.

It is recommended to install the following solar powered appliances in the campus;

Solar powered street lights and LED display board Green Campus

In order to increase the carbon credit and greenery of the campus, it is recommended to plant more indigenous and evergreen / fruit trees inside the campus.

Waste Management

Try to avoid the use of plastic in the campus, and to encourage the use of biodegradable materials as alternatives. Try to achieve the goal of a plastic free campus. Leaf litter from the campus can be effectively used for aerobic/ vermicomposting, so that the composted material can also be used as good manure. Recycle the paper waste instead of incinerating or burning.

THE END