

GOVT DEGREE COLLEGE ARMOOR

Dist Nizamabad – 503224
Affiliated to Telangana University



GREEN AUDIT REPORT 2022-2023

Submitted By

INTERNAL QUALITY ASSURANCE CELL (IQAC)

GOVT.DEGREE COLLEGE -ARMOOR

NIZAMABAD – TELANGANA

**PROCEEDINGS OF THE PRINCIPAL, GOVT. DEGREE COLLEGE, ARMOOR
NIZAMABAD DIST.**

Present: Sri. Dr.T.Venugopala Swamy , Principal(FAC) , M.Sc., Ph.D, BEd.

Proc.Rc.No.GDCA. / Green Audit /2023. Date: 21-03-2023.

- Sub:** Constitution of College Level Green Audit Committee -
Government Degree College, Armoor - Nizamabad Dist - Reg.
- Ref:** 1) File No.CCE-AC/QLTY/NAAC/1/2021-ACADEMIC CELL Dated:
23.04.2021.
2) File No.CCE-AC/QLTY/NAAC/1/2021-ACADEMIC CELL Dated:
26.07.2021.

* * *

The undersigned is pleased to constitute the College Level Green Audit Committee with the following staff and students. The audit committee should conduct an audit at least twice in a academic year as per guidelines issued by CCE, Hyd vide reference 1 & 2 read above and submit audit report in the office.

Composition of the committee

S.NO	Name & Designation of Committee Member	Position in the Committee
1	Dr.T.Venugopala swamy Principal(FAC),GDC ,Armoor	Chairman
2	Dr.P.Ram Mohan Reddy PrincipalGGC(A),Nizamabad.	External member
3	Mr.Rajesh. A Asst.Prof of Chemistry	Convenor
4	Smt.T.Umakiran Asst.Prof of Botany	Co-Convenor
5	Mr.P.Yadagiri Lecturer in Politial Science	Member
6	Mrs. Ramya shree Lecturer in Physics	Member
Name and Group of the Student Volunteers		
1	Mr. Kushal ,B.Sc (MPC)	Volunteer
2	Ms.Akanksha,B.Sc (MPC)	Volunteer
3	Ms. Zaveria Taranum ,B.Sc (BZC)	Volunteer
4	Mr.Mazam Masroor,B.Sc (MPCs)	Volunteer
5	Ms.Vinisha,B.Sc (MPC)	Volunteer

Sd/-
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 analyze 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 ,Armoor (formerly Govt. Arts and Science College) was established in the year 1966 with the mission of spreading higher education for the upliftment of deprived sections residing in rural areas and inculcating the values of integrity, patriotism, sacrifice and respect for physical labour among the students.

The college has a good reputation with alumni spread in diverse and higher positions in the society. The students of this institution are serving as higher officials in Indian Administrative Services, Indian Police Services, Professors in Universities ,Group I Officials, Public Representatives in Legislative Assembly etc. Government Degree College ,Armoor is a government college and functions under the Department of Higher Education and Commissionerate of Collegiate Education of the Telangana State Government and is affiliated to the Telangana University. It is a multi faculty college having Science, Arts and Commerce courses at Under Graduate level.

The syllabus offered by various courses is prepared by the Board of Studies of the affiliating university. Environmental Studies, Human values & Professional Ethics, Gender Sensitization are taught as compulsory subjects at Under Graduate level.

The various advancements that have been carried out since the second re-accreditation are summed up briefly under the seven criteria. The various thrusts of the College as presented in the seven criteria are: Quest for excellence – emphasis on quality education. Fostering global competence among students. Promoting the use of technologies.

Inculcating a value system among students. Promotion of transparent and participatory governance. Ongoing promotion of new innovative practices to make the institution relevant in its mission as an agent of social transformation.

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

Vision

Imparting instruction in Sciences, Arts, Commerce, and Information Technology with humanitarian, national and global outlook.

- To equip students with qualitative professional and educational skills by providing best possible infrastructure and be a centre of excellence and leader in providing the higher education by making the state of art facilities
- To transform the students into global contributors and achievers.
- To inculcate among students dignity of labour, creativity and ethical approach for broad understanding of life and to build up national character through personality development.

Mission

- The Motto of the college is, "Let the teacher and disciple together perform great acts of Strength " (Saha vIryam karavAvahai)
- To impart education in the different disciplines of knowledge. To develop a sense of responsibility amongst the students as the citizens of the nation.
- To contribute to all round development of the students' personality to direct the activities of the college towards the empowerment of the deprived sections of the society.
- To create awareness amongst the students about social and national problems like illiteracy, superstitions, pollution, AIDS, corruption, female foeticide and communal disharmony.
- To develop soft skills amongst the students
- To create awareness about natural/organic farming, environment conservation, water harvesting and nonconventional energy sources amongst the students To organize outreach activities for the benefits of the stakeholders of the college
- To work for career opportunities for the students.
- Prepare students with sensitivity to contribute to society and to make the college as a centre of excellence by offering better education to the students at undergraduate levels by bringing out their total personality.
- Emphasizing ethical values and growing challenges of the diverse societal needs. The mission of the college is to further help the students to acquire comprehensive competitive skills and talents and to develop ethical values and concern of environment.

Institutional Profile :

Name of the college	GOVERNMENT DEGREE COLLEGE ARMOOR
Complete Address	Pipri Road ,ARMOOR Nizamabad Dist, Telangana State Pin Code-503224
City	ARMOOR
District	Nizamabad
State	Telangana
PIN	503224
Website	gdcts.cgg.gov.in/ARMOOR.edu
Mail Id	prl-gdc-armrce@telangana.gov.in ,gdcar Moor@gmail.com
Contact number	9490511922

Head of the Institution & Principal	Dr. T.Venugopala Swamy	9490511922
IQAC Coordinator & Vice-Principal	Rajesh A	9951753976

Academic Profile :

Date of Establishment	01.01.1966
Affiliated to	Telangana University, Dichpally
College Type	Government Undergraduate College
NAAC Accreditation	'B' grade with 2.27 CGPA in 3 rd Cycle Accredited on 01st March 2021
UGC Recognition	Recognized under Clause 2(f) & 12B of UGC Act 1956 w.e.f. 03-07-1967
AISCHE Code	C- 35057
ISO Certificate	9001-2015 form the academic year 2019-20 Certificate No.Q91864141508

Executive Summary

Eco friendly campus is a concept implemented in many educational institutions, all over the world to make them sustainable because of their mass resource utilization and waste discharge in to the environment. Waste minimization plans for the educational institute are now mandatory to maintain the cleanliness of the campus. To find out the environmental performance of the educational institutions and to analyze the possible solutions for converting the educational campus as eco-campus the conduction of Green Auditing of institution is essential. The green auditing of ‘Government Degree College, Armour ’ enables to assess the life style, actions of stake holders and its impact on the environment. This is the first attempt to conduct green auditing of this college campus. This audit was mainly focused on greening indicators like consumption of energy in terms of electricity and fossil fuel, quality of soil and water, vegetation, waste management practices and carbon foot print of the campus etc. Initially a questionnaire survey was conducted to know about the existing resources of the campus and resource consumption pattern of the students and staff in the college. In order to assess the quality of water and soil, water and soil samples were collected from different locations of the college campus and analysed for its bio and geochemical parameters. Collected data was grouped, tabulated and analyzed. Finally a report pertaining to environmental management plan with strength, weakness and suggestion on the environmental issue of campus are documented.

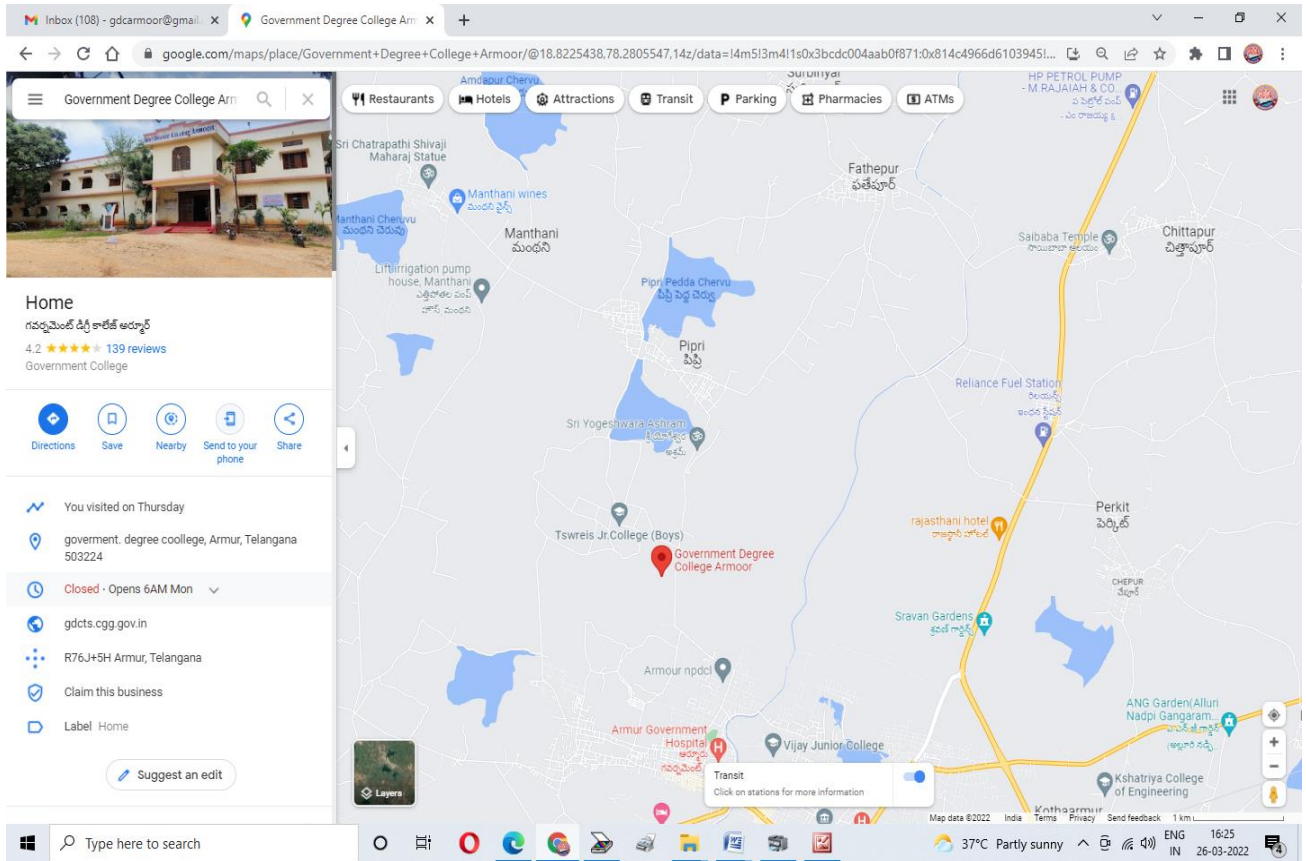


Fig1. Location of GOVT.DEGREE COLEGE - ARMOOR

OBJECTIVES OF GREEN AUDIT

The main aim objectives of this green audit is to assess the environmental quality and the management strategies being implemented at Government Degree College, Armour Nizamabad(dist.).The specific objectives are:

1. To assess the quality of the water and soil in the 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 the College 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 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 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. 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. Of all the greenhouse gases, carbon dioxide is the most prominent greenhouse gas, comprising 402 ppm of the Earth's atmosphere. 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 mode of transportation that is practiced in the college is important.

Methodology Adopted

The methodology adopted to conduct the Green Audit of the Institution had the following components

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 the running taps of the college supplied from two bore wells 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.

Group Discussion

The Group discussions were held with the Eco club and other staff members. The group discussions mainly focused on various aspects of Green Audit such as identifying the attitudes and awareness among the stakeholders of the college 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: Government Degree College, Armour

Address: Government Degree College, Towards Pipri Road-Armour. 503224

ContactInfo:9440169562/7901066379

Campus Area – 50 Acres

Built-upArea: **2,21,100 Sq.Ft.**

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	242	322	564
No of Teaching staff	11	5	16
No of Non-Teaching Staff	9	3	12

Physical Structure

The available land of the college: **50**____ Acres and **NIL**____ Guntas.

The built-up area of the college: **2,21,100 Sq.Ft.**

Total Available Rooms	51
No. of Class Rooms	16
No. of Laboratories	12
No. of Conference halls	02
Library Halls	03
Auditorium	-
Canteen	01
Any other (please specify)	
Sports & Gymnasium	2
NSS	1
Principal chamber	1
Staff Room	7
Store room	1
Academic & Examination Branch	1
Office	1
BRAOU Study Centre	2
Ladies waiting room	1
Open air auditorium	1

Objectives :	<ul style="list-style-type: none"> ➤ Environmental risk assessment including compliance to regulations, soil, Water, solid and E-wastes, emissions, hazardous products & noise pollution. ➤ Waste minimization and environmental pollution control plans. ➤ The optimal utilization of energy, water and other natural resources. ➤ Recycling programs and product life cycle considerations. ➤ Emergency response plans and procedures.
Prepared by:	<ol style="list-style-type: none"> 1. Audit for water management- Smt. T Umakiran (Botany Faculty) 2. Audit for energy management –Smt R.Ramya shree (Physics Faculty) 3. Audit for waste management– Sri Hasseb Ur Rahman (Commerce Faculty) 4. Audit for Green Campus management – Smt. T Umakiran (Botany Faculty) Smt. Anitha Pawar (English Faculty) 5. Audit for Green Carbon footprint- Sri. Rajesh A (Chemistry Faculty) 6. Audit for Air Quality – Sri Rajesh A (Chemistry Faculty) Sri P Yadagiri (Pol. Science Faculty)
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 purpose, Watering plants, Lab purpose, Fountain tank for fishes and Toilets.
2. What are the sources of water in your college?
 - Bore well (ground water), Rain Water.
3. How many wells are there in your college?
 - 2
4. No.of motors used for pumping water from each well?
 - Total No.of motors(02).
5. What is the total horsepower of each motor?
 - 2 hp
6. What is the depth of each well?
 - 240Fts & 400 Fts
7. What is the present depth of water in each well?
 - 100fts,220fts
8. How does your college store water?
 - Cement Tanks and Sintex tanks.
9. Quantity of water stored in your overhead water tank?(Inliters)
 - 7 thousand Liters including all the four tanks.
- 10.Quantity of water pumped every day?(Inliters)
 - 5 thousand Liters
- 11.If there is water wastage, specify why.
 - Nil
- 12.How can the wastage be prevented/stopped?
 - Regular Monitoring of Leakages, Annual plumber checking and create awareness on water management practices among the stake holders .
- 13.Locate the point of entry of water and point of exit of waste water in your College.

➤ Bore well are point of Entry, Exit of waste water (RO and Washrooms) to Water soaking pits.

14. Where does waste water come from?

➤ From Wash Areas of Students, various Departments and office

15. Where does the waste water go?

➤ Water from wash Area used for plants ,Water from various Departments, labs and Toilets drain to Drainage. Water from wash area of students lead to water soak pit.

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

➤ Garden use

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

➤ Water from Labs before mixed with ground water. Activated charcoal and Lime Treatment given to the waste water drains from the Laboratories

➤ Is there any treatment for the lab water?

➤ YES

18. Whether green chemistry methods are practiced in your labs?

➤ The scientific procedure through the specified protocol is adopted in disposal of hazardous chemistry laboratory waste to prevent the environmental contamination and other health hazards

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

1. Mulching around plants to hold water in the soil

2. Installed new toilets that use less than 1.6 gallons per flush

3. Turn off sink faucet while scrubbing dishes and pots

4. Use plants that require less water

5. Put faucets aerators on sink faucets

6. Using of rain water as distill water in the laboratories.

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

➤ Not recorded (water meter is not installed so far likely to be install very soon)

22. Bi monthly water charges paid to water connections if any

➤ Nil (No such paid water services are available in the college)

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

➤ Nil

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

➤ 80 water taps, 8000 Liters per Day

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

Total no of bathrooms 06 (01Not in use) amount of water used -2500liters

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

S.no	Students	Water used	remarks
1	Boys 1Block	500Liters	
2	Girls2Blocks	2000Liters	

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

➤ 2 Taps in Canteen.500 liters

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

➤ 3000 Liters

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

s.no	Laboratories	No.of Water taps	Water used / day
1	Chemistry	20	100 L
2	Physics	1	15 L
3	Botany	2	40 L
4	Zoology	2	50 L

30.Total use of water in each hostel?

➤ Nil (No hostel is attached to this college)

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	Liters of water	remarks
1	Toilets	2500 liters	
2	Watering plants	3000 liters	
3	canteen	500 liters	
Total		6000 liters	

32. Is there any water used for agricultural purposes?

➤ Nil

33. Does your college have rainwater harvesting units?

➤ Yes

34. If yes, how many rainwater harvesting units are there? (Approximate.)

➤ 02

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

➤ Nil

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

➤ Yes

37. Is there any waterless toilet?

➤ Nil

38. How many water fountains are there?

➤ Nil

39. How many water fountains are leaky?

➤ Nil

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

➤ NO

41. How often is the garden watered?

➤ Daily

42. Quantity of water used to watering the ground?

➤ 500 litres

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

➤ Nil

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

➤ Nil

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

➤ 10Acre

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

➤ YES

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

1. Rainwater Harvesting units
2. Mulch around plants to hold water in the soil
3. Install new toilets that use less than 1.6 gallons per flush
4. Turn off sink faucet while scrubbing dishes and pots
5. Use plants that require less water
6. Put faucets aerators on sink faucets

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

➤ College could save more water by using of rain water in laboratories instead of salt filtered(distill water), by install aerators and water efficient plumbing fixtures. Detect and repair leaks, replacement of standard urinals with waterless version or fit efficient automatic flush controls on urinals, Use mulch around plants and trees to reduce evaporation and weeds and preserve existing plants for shade and moisture retention to reduce the need for irrigation.

1. Watermanagement

SL NO	PARAMETERS	Response	Remarks
1	Source of water	Bore wells	
2	No .of Bore Wells	02	
3	No. of motors used	02	
4	Horsepower–Motor	2hp	
5	Depth of well–Total	240fts 400 fts	
6	Water level	100fts	
7	Number of water tanks	4	2 (2000L capacity) 2(1000 L capacity)
8	Capacity of tank	2000&1000lit s	
9	Quantity of water pumped everyday	10000Liters	
10	Any water wastage/why?	NO	
11	Water usage for gardening	YES	
12	Waste water sources	YES	
13	Use of waste water	YES	
14	Fate of waste water from labs	YES	Activated charcoal and lime treatment given to the waste water before drains from the Laboratories
15	Whether waste water from labs mixed with ground water	NO	
16	Any treatment for lab water	YES	
17	Whether any green chemistry method practiced in labs	YES	
18	No. of water coolers	NO	
19	Rain water harvest available?	YES	
20	No. of units and amount of water harvested	02	
21	Any leaky taps	Nil	
22	Amount of water lost per day	Nil	
23	Any water management plan used?	YES	
24	Any water saving techniques followed?	YES	
25	Are there any signs reminding people to turn off the water?	YES	

Results of water quality analysis

Parameters	Bore Well water	RO water	Standard value(BIS)
Dissolved Oxygen(mg/l)	5.2	5.6	6-8
Acidity(mg/l)	155	182	200
Alkalinity(mg/l)	220	125	200
Chloride(mg/l)	5	165	250
Hardness(Total)	210	110	200
Conductivity(μ s)	1000	890	
Ph.	7.8	7.2	6.5-8.5
Total Dissolved Solids(ppm)	250-300	100	500
Salinity(ppm)			
Total coli form			0
Fecal coli form			0

AUDITING FOR ENERGY MANAGEMENT

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

- --> Electricity, Electric Kettle, Electric stove, Microwave & LPG

2. Electricity bill amount for the last year

- --> Rs – 4,25,000 /- (4.25 lakh)

3. Amount paid for LPG cylinders for last one year

- --> Rs – 2,000 /-

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

- --> NIL

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

- --> Yes, Few Energy savings measures are adopted to save the energy in the college.

Solar panels are installed for more usage of non-conventional energy resources

Replacement of ordinary and CFL bulbs and tubes with LED bulbs & tubes is suggested to reduce the power consumption in the college.

Instructions are given to all stake holders to put off the lights and fans when not in use (While leaving the class rooms /Labs etc).

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

- --> Approximately about Rs – 36,000 /-

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

- --> 16 , 4 hours per day ,25 days per month.

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

- --> 2.5 Kwh

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

- --> 37, 6 hours per day ,25 days per month.

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

--> 0.65KWh

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

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

- --> NIL

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

- --> NIL

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

- --> 153 fans , 6 Hours per day and 25 days per month.

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

- --> 9 KWh

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

- --> 11, 2 hours per day and 13 days per month

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

- --> 210 kWh

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

- --> 1. Hot water bath 2Nos
- 2.Hot hair oven 1 no
- 3. Sterilizer 1 no

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

- --> 1. Hot water bath 2Nos - 8 Kwh/Month
- 2.Hot hair oven 1 no 4Kwh/month
- 3. Sterilizer 1 no 4Kwh/M

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

- --> 112, 4 hours per day and 20 days per month

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

- --> 20 kWh

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

- --> 7, 1 hour per day and 30 days per month

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

- --> 2 ,24 hours per day and 30 days per month

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

- --> 108 kWh

- 24. Energy used by each photocopier per month? (Kwh) Mention the use (Hours used/day for how many days in a month)

- 6.5Kwh, 8 (UPS), 24 hours per day ,20 days per month.

how many inverters in your college installed? Mentions use (Hours used/day for how many days in a month)

--> 3kv - 2 Nos
5kv - 1
1.5kv - 2

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

- --> Approximately about 480 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 amonth)

- --> Hot air ovens (1),Hot plates (2) CROS (1)..etc. 1 per hour day 4 days per month.

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

- --> 0.25kWh

28. How many heaters are used in the canteen of your college? Mention the use (Hours used/day for how many days in a month)

- --> NIL

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

- --> NIL

30. No of street lights in your college?

- --> 9

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

- --> 10 kWh

32. No of TV in your college and hostels?

- --> 1

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

- --> 1.6 kWh

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)

- --> Motors..etc. 2 hours per day ,20 days per month .

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.

- --> Yes, Solar energy

36. Do you run “switch off” drills at college?

- --> NO

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

- --> YES

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

- --> NO

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

- --> Energy audit being conducted in our college in order to identify sources of power wastage .All the computers and instruments kept in switch off mode when they are actually not in use. While running also they are kept in power save mode. During the day time the use of bulbs and tubes is avoided by opening

windows completely to tap the light.

40. How many boards displayed for saving energy awareness?

- --> 3 boards

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

➤ --> NIL

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

- --> 1. More usage of non-conventional energy resources like sunlight by installing solar panels across the campus along with present solar panels.
- --> 2. Purchasing of energy efficient and energy saving appliances
- --> 3. Efficient use of windows for day lighting of the class rooms.

Energy Audit Report

Sl.No	Electrical appliances/Instruments	Number	Power (W)/unit	Total power(W)	KW	Operation /day	Kw/hr	No.of days in moths	Total Consumption per Month
1	CFL BULB5	16	14	224	0.224	4	0.896	25	22.4
2	LED BULB	37	09	333	0.333	6	1.998	25	49.95
3	LED TUBE	79	20	1580	1.580	6	9.48	25	237
4	PROJECTOR	7	280	1960	1.960	1	1.96	20	39.2
5	FAN	153	60	9180	9.180	6	55.080	25	1377
6	COMPUTER	112	250	28000	28.0	4	112	20	2240
7	PRINTERS	10	60	600	0.600	1	0.600	20	12.0
8	UPS	8	1000	8000	8.0	24	192	20	3840
9	A/C	11	7000	77000	77.0	02	154	15	2310
10	REFRIGERATOR	03	150	450	0.450	24	10.80	30	324
11	OVEN	03	1.00	3000	3.0	01	3.0	20	60
12	CENTRIFUGE	02	850	1700	1.7	1	1.7	20	34
	Total Consumption per month								10545KWH

AUDITING FOR WASTE MANAGEMENT

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

- --> NO.of students- 501
- --> NO.of Teachers - 14
- --> No.of non-Teaching staff-09
- --> Gents –228
- --> Ladies-296
- --> Total – 524

2. Which of the following are available in your College?

- --> Give area occupied- 50 Acres
- --> Garden area - 9 Acres
- --> Garbage dump (number)- 02
- --> Playground area- 15 Acres
- --> Laboratory- 12 (22000 sft)
- --> Canteen- 1200 sft
- --> Toilets (number) -06 blocks
- --> Car/scooter shed area- 2000 sft
- --> Number of class rooms- 16
- --> Office rooms- 01
- --> others (specify)-

1. NCC- 00

2. NSS- 01

3. PRINCIPAL CHAMBER -01

4. EXAMINATION BRANCH-01

5. ACADEMIC BRANCH- 01

6. STAFF ROOMS - 08

3. Which of the following are found near your college? Mark the level of disturbance it creates for the college in a scale of 1 to 9.

- --> Municipal dump yard- NO
- --> Garbage heap- NO
- --> Public convenience Sewer line- NO
- --> Stagnant water-NO
- --> Open drainage Industry – (Mention the type)- NO
- --> Bus / Railway station Market / shopping complex / public halls - NO

WASTE

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

- --> YES, Approx. 35 kg
- --> Name of waste - E-waste Hazardous waste (toxic) – 20 kg
- --> Solid waste- 55 kg
- --> Dry leaves -12.5kg
- --> Canteen waste-5 Kg
- --> Liquid waste-
- --> Glass-03 kg
- --> Unused equipment –NIL
- --> Medical waste if any – NIL
- --> Napkins –NIL
- --> Others (Specify)-NIL

Waste generated in the college?

E-waste Hazardous waste	yes	20 kg
Solid waste	yes	55kg
Dry leaves	yes	12.5kg
Canteen waste	yes	5Kg
Liquid waste	No	-
Glass	yes	3kg
Unused Equipment	No	NIL
Napkins	No	NIL
Others (specify)	No	NIL

Is there any waste treatment system in the college?

- --> Compost pit

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

- --> NO

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

- --> 30 KG

2 .Why waste is a problem?

- --> Waste creates pollution can cause risk to the environment and public health. Soil and water will get contamination.

3 .Whether waste is polluting ground/surface water ? How?

- --> Waste pollute ground water threw chemicals, unwanted contaminants and impurities polluted ground water causes hazards to public health threw poisoning or spreading diseases.

4 . Whether waste is polluting the air of the college? How?

- --> NO, because we are managing by composting the waste regularly.

5 How is the waste generated in the college managed?

How the waste generated in the college is managed?

Waste Management practices	YES/NO	Remarks
A)Composting/ Vermi composting	YES	02
B)Recycling	YES	We are transporting records to Recycling centers
C)Reusing	NO	
D)Other ways(Incineration)	YES	

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

- --> 2 boxes

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

- --> 1 box is for dry waste- BLUE
- --> 1 box is for wet waste- GREEN

7 Do you use recycled paper in College?

- --> Yes

8 Is there any waste wealth program practiced in the college?

- --> YES, vermin-composting fit

Approximate quantity of waste generated per day (in kg)

OFFICE				
Approximate quantity	Biodegradable	Non - Biodegradable	Hazardous	Others
<1Kg		1Kg	<1Kg	
2-10Kg				
>10Kg	11 KG			-

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

Canteen/kitchen				
Approx.	Biodegradable	Non -Biodegradable	Hazardous	Other s
<1Kg	-+	0.5 kg	-	-
2-10Kg	5 Kg		-	-
>10Kg	--	--	--	-

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

- --> NO

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

- --> NO

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

AUDITING FOR GREEN CAMPUS MANAGEMENT

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

No

2. Do students spend time in the garden?

-

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

List enclosed

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

List enclosed

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

List enclosed

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

Yes

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

Yes, ½ Acre, Shade plants and Ornamental plants

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

No

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

No

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

Nil

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

Bore well (Ground water), 2500 Ltrs/day.

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

Smt. T Umakiran, Asst. Prof 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?

Vermi compost

Animal manure

15. Whether you are doing organic farming in your college? How?

No

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

Yes. Using for Plants

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

No

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

No

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

List enclosed

19. Any threatened plant species planted/conserved?

Yes. List enclosed

20. Is there a nature club in your college? If yes what are their activities?

No

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

No

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

Yes. List enclosed

23. Are there any groves in your college? If yes details of the trees planted.

No

24. Is there any irrigation system in your college?

No

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

Deciduous type.

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

Haritha Haram (Plantation program)

Catch the rain (Awareness programmes)

Earth Day (April 22nd), Zero-hour observation, Quiz etc.

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

Students actively participated in plantation and taking care of the plants what they have planted.

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

8 Acres

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

Water plays a major role in the maintenance of greenery in the campus. There should be adequate supply of water throughout the year, especially in summer.

Protection of plants from animals and outside people is also an important area to focus. There should be proper fencing and observation.

We can encourage the students and staff to plant at least one tree on their special occasions.

TABLE : Checklist of Floral groups

1	Fruit yielding plants	Table -1
2	Medicinal plants	Table-2
3	threatened plants	Table-3
4	Trees	Table-4
5	Gymnosperms	Table- 5
6	Shrubs	Table-6
7	Creepers	Table-7
8	Ornamental plants	Table-8
9	Palms	Table-9
10	Parasitic	Table-10
11	suggested plants	Table -11
12	List of the species planted by the students with numbers.	Table-12

Table -1 : LIST OF FRUIT YIELDING PLANTS

S.No	Local Name	Common Name	Botanical Name	Family	No. of plants (approx)
1	Mamidi	Mango	<i>Mangifera indica</i>	Anacardiaceae	06
2	Danimma	Pome granate	<i>Punica grantum</i>	Lythraceae	06
3	khajur	Date palm	<i>Phoenix dactylifera</i>	Arecaceae	01
4	Pariki	Jackal jujube	<i>Ziziphus oenoplia</i>	Rhamnaceae	Many
5	Jamun	Indian blackberry/ black plum	<i>Syzygium cumini</i>	Myrtaceae	03
6	Usiri	Indian gooseberry	<i>Phyllanthus emblica</i>	Euphorbiaceae	01
7	Seethaphalam	Custard apple	<i>Annona squamosa</i>	Annonaceae	02
8	Jaama	Guava	<i>Psidium guajava</i>	Myrtaceae	04

9	Badam	Almond	<i>Prunus dulcis</i>	Rosaceae	05
10	Seemachinthakaya	Manila tamarind	<i>Pithecellobium dulce</i>	Fabaceae	01
11	Velaga	Wood apple/ elephant apple	<i>Feronia elephantum</i>	Rutaceae	01
12	Nimma	Lemon	<i>Citrus medica</i>	Rutaceae	01

Table-2 : LIST OF MEDICINAL PLANTS

S.No	Local name	Common name	Botanical name	Family	No. of Plants
1	Vepa	Neem tree	<i>Azadirachta indica</i>	Meliaceae	21
2	Kalabanda	Aloe	<i>Aloe vera</i>	Liliaceae	13
3	Shankpushpi	Butterfly pea/ Blue bell vine	<i>Clitoria ternatea</i>	Fabaceae	08
4	Maredu/Bilva	Golden apple	<i>Aegel marmelos</i>	Rutaceae	04
5	Kanuga	Pongam tree	<i>Pongamia pinnata</i>	Fabaceae	17
6	Nilgiri	Eucalyptus	<i>Eucalyptus</i>	Myrtaceae	
7	Tulasi	Basil	<i>Ocimum sanctum</i>	Lamiaceae	02
8	Billa ganneru	Pink Periwinkle	<i>Catharanthus roseus</i>	Apocyanaceae	03
9	Usiri	Indian gooseberry	<i>Phyllanthus emblica</i>	Euphorbiaceae	01
10	Jammi chettu		<i>Prosopis cineraria</i>	Fabaceae	01
11	Thati chettu	Toddy palm/ Palmyra palm	<i>Borassus flabellifer</i>	Arecaceae	13
12	Eetha chettu	Indian date /Silver date Palm	<i>Phoenix sylvestris</i>	Arecaceae	03
13	Marri Chettu	Banyan tree	<i>Ficus</i>	Moraceae	01

			<i>benghalensis</i>		
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Table-3 : CHECKLIST OF TREES

Sl no	Local name	Common name	Scientific name	family	Aprox. Number
1.	Mamidi	Mango	<i>Mangifera indica</i>	Anacardiaceae	10
2.	<i>Kavuki</i>	Indian Cork Tree, Tree Jasmine	<i>Millingtonia hortensis</i>	Bignoniaceae	07
3.	Simatangedu	Kassod tree	<i>Cassia siamea</i>	Caesalpiniaceae	05
4.	Usiri	Amla	<i>Emblica officinalis</i>	Euphorbiaceae	03
5.	Marri chettu	Banyan Tree	<i>Ficus benghalensis</i>	Moraceae	02
6.	Daivasuripi	Chhatiyani/ devil's tree	<i>Alstoniascholaris</i>	Apocynaceae	02
7.	Naramamidi	Indian Fir / Cementry Tree	<i>Polyalthia longifolia</i>	Annonaceae	11
8.	Neelagiri	Eucalyptus	<i>Eucalyptus spp.</i>	Myrtaceae	546
9.	Bomma- medi	Cluster Fig	<i>Ficus glomerata</i>	Moraceae	01
10.	Neredu	Indian Blackberry	<i>Syzygiumcumini</i>	Myrtaceae	02
11.	Kanchanamu	Butterfly Tree	<i>Bauhinia purpurea</i>	Caesalpiniaceae	12
12.	Panas	JackFruit	<i>Artocarpus heterophyllus</i>	Moraceae	04
13.	Kanuga	Pongam Tree, PongameOilTree	<i>Pongamia pinnata</i>	Fabaceae	55
14.	Badam	Indian almond	<i>Terminalia catappa</i>	Combretaceae	07
15.	Regu	Indian Jujube / Ber	<i>Ziziphus mauritiana</i>	Rhamnaceae	08
16.	Vepa	Neem Tree	<i>Azadirachta indica</i>	Meliaceae	120
17.	Seethe phalam	Custard Apple	<i>Annona squamosa</i>	Annonaceae	10
18.	Lakshmana phalamu	Graviola	<i>Annona muricata</i>	Annonaceae	02
19.	Jaama	Guava	<i>Psidium guajava</i>	Myrtaceae	06
20.	Konda cinta, pacha sunkesula	Copper Pod Tree	<i>Peltophorumpterocarpu m</i>	Caesalpiniaceae	03
21.	Teak	Burma Teak	<i>Tectona grandis</i>	Verbenaceae	132
22.	Munaga	Drumstick Tree	<i>Moringa oleifera</i>	Moringaceae	05
23.	Subabul	Subabul	<i>Leucaena leucocephala</i>	Caesalpiniaceae	21
24.	Chintha	Tamarind	<i>Tamarindus indica</i>	Caesalpiniaceae	06

25.	Konda cinta, pacha sunkesula	Copper Pod Tree	<i>Peltophorumpterocarpum</i>	Caesalpiniaceae	03
26.	Cheel	Bottlebrush	<i>Callistemon.sp</i>	Myrtaceae	04
27.	Iruguducettu	indian rosewood	<i>Dalbergia sissoo</i>	Fabaceae	15
28.	Karvepaku	Curry leaf tree	<i>Murrayakoenigii</i>	Rutaceae	07
29.	Nail, naulara	Indian Elm	<i>Holoptelea integrifolia</i>	<u>Ulmaceae</u>	02
30.	Sarkaruthamma	Algarroba, mesquite	<i>Prosopis juliflora</i>	Mimosaceae	02
31.	Raktagandhamu	Red sandalwood	<i>Pterocarpus santalinus</i>	Fabaceae	02
32.	Danimma	Pomegranate	<i>Punica granatum</i>	Lythraceae	04
33.	Boppaya	Papaya	<i>Carica papaya</i>	<u>Caricaceae</u>	02
34.	Dirisena	<i>Lebbeck</i>	<i>Albizia lebbeck</i>	Caesalpiniaceae	06
35.	Gangaravi	Mahoe	<i>Thespesia populnea</i>	<u>Malvaceae</u>	02
36.	Addasaram	<i>Vasaka</i>	<i>Adhatodavasica</i>	<u>Acanthaceae</u>	01
37.	Buruga	Cotton tree	<i>Bombax ceiba</i>	<u>Malvaceae</u>	03
38.	Rachausiri	West India gooseberry	<i>Phyllanthus acidus</i>	Euphorbiaceae	11
39.	Nakkaragu	Jamaica cherry	<i>Muntingiacalabura</i>	<u>Muntingiaceae</u>	02
40.	Neetibudda	African tulip	<i>Spathodeacampanulata</i>	Bignoniaceae	02
41.	Peddazuvvi, putrazuvvi,	Weeping fig, benjamin fig	<i>Ficus benjamina</i>	Moraceae	02
42.	Suraponna	Fish poison tree, putat or sea poison tree	<i>Barringtonia asiatica</i>	<u>Lecythidaceae</u>	01
43.	Thella maddi	Arjun tree	<i>Terminalia arjuna</i>	Combretaceae	05
44.	Oak tree	Silver oak	<i>Grevillea robusta</i>	Proteaceae	03
45.	Billajuvvi	Chinese banyan, malayan banyan, indian laurel, curtain fig	<i>Ficus microcarpa</i>	<u>Moraceae</u>	01

Table- 4: Checklist Of Gymnosperms

Sl no	Local name	Common name	Scientific name	Family	Aprox. Number
1.	Cycas	Japanese sago palm	<i>Cycas revoluta</i>	Cycadaceae	01

Table-5: LIST OF ORNAMENTAL PLANTS

S.No	Common name	Botanical name	Family	No. of Plants
1	Crinum Lily	<i>Crinum asiaticum</i>	Liliaceae	04
2	Dracaena	<i>Dracaena</i>	Asparagaceae	3
3	Red Dracaena	<i>Dracaena</i>	Asparagaceae	02
4	Devil's backbone plant	<i>Pedilanthus sp</i>	Euphorbiaceae	22
5	Croton	<i>Amaranthus tricolor</i>	Amaranthaceae	03
6	Croton	<i>Codiaeum variegatum</i>	Euphorbiaceae	03
7	Ficus plant	<i>Ficus benjamina</i>	Moraceae	04
8	Mandaram/ Shoe flower	<i>Hibiscus rosasinensis</i>	Malvaceae	05
9	Tecoma	<i>Tecoma stans</i>	Bignoniaceae	02
10	Jasmine	<i>Jasminum sp</i>	Oleaceae	01
11	Rain yellow lily	<i>Zephyranthes sp</i>	Amaryllidaceae	Many
12	Rain white lily	<i>Zephyranthes sp</i>	Amaryllidaceae	Many
13	Gulmohar/ Royal Poinciana/ flame of the forest	<i>Delonix regia</i>	Fabaceae	02
14	Raamabanam	<i>Ixora coccinea</i>	Rubiaceae	03
15	Sansevieria	<i>Sansevieria sp</i>	Asparagaceae	03
16	Gulabi/ Rose	<i>Rosa sps</i>	Rosaceae	02
17	Tradescantia	<i>Tradescantia</i>	Commenlinaceae	01

18	Nandivardhanam	<i>Tabernamontana divaricata</i>	Apocynaceae	02
19	Nerium	<i>Nerium oleander</i>	Apocynaceae	05
20	Champa / Deva ganneru	<i>Plumeria alba</i>	Apocynaceae	03
21	Tangedu	<i>Cassia sps</i>	Caesalpinaceae	37

Table-06 : List of the species planted by the students with numbers.

Sl no	Local name	Common name	family	Number
1.	Ficus Blenjamina	Ficus Blenjamina		3
2.	Garden Form	Garden Form		7
3.	Gul Mohar	Gul Mohar		20
4.	Neem	Neem		10
5.	kanuga	kanuga		217
6.	Teak	Teak		8
7.	Mandharam /Hibiscus	Mandharam /Hibiscus		4
8.	Ganneru	Ganneru		5
9.	Lemon	Lemon		2
10.	Jama	Jama		5
11.	Jamu/Allaneradu	Jamu/Allaneradu		2
12.	Mehindi	Mehindi		1
13.	Tamarind	Tamarind		1
14.	Lassonia inermis	Lassonia inermis		10
15.	Pathri	Pathri		6
16.	Punica granatum	Punica granatum		5
17.	Cesalpinia pulchrrima	Cesalpinia pulchrrima		15
18.	Ficus benjamina	Ficus benjamina		5
19.	Pedilantys Tithymaloides	Pedilantys Tithymaloides		13
20.	Tradescantia Pallida	Tradescantia Pallida		3
21.	Prunus dalicis/badham	Prunus dalicis/badham		4

Checklist of Faunal groups with species number

1.	Mammals	9	Table-1
2.	Birds	12	Table-2
3.	Reptiles	7	Table-3
4.	Amphibians	1	Table-4
5.	Insects	11	Table-5

Table 01: Checklist of Mammals

SI. No.	Common Name	Scientific Name	Telugu name	Family
1	Five striped Palm Squirrel	<i>Funambulus pennantii</i>	Uduta	Sciuri dac
2	Common Pipistrelle	<i>Pipistrellus pipistrellus</i>	Gabbilam	Vespertilioiidae
3	Rabbit	<i>Oryctolagus</i>	kundelu	leporidae
4	Gray Langur	<i>Semno pithecus sp.</i>	Kothi	Cercopithecidae
5	Indian Grey Mongoose	<i>Herpestes edwardsi</i>	Mungisa	Herpestidae
6	Indian boar	<i>Sus scrofa cristatus</i>	Pandi	Siudae
7	Indain pariahdog	<i>Canis lupus familiaris</i>	Oora kukka	Canidae
8	Indian Bush rat	<i>Golunda Ellioti</i>	Eluka	Muridae
9	Lesser bandicoot rat	<i>Bandicota bengalensis</i>	Pandi kokku	Muridae

Table 02: Checklist of Birds

SI. No.	Common Name	Scientific Name	Telugu name	Family
1	Asian Koel	<i>Endynamys scolopaceus</i>	Kokila	Cuculidae
2	Common Kingfisher	<i>Alcedo atthis</i>	Lakumuki pitta	Alcedini da e
3	Common Myna	<i>Acridotheres tristis</i>	kokila	Sturnidae
4	Common Pigeon	<i>Columba livia</i>	Pavuram	Columbidae
5	House Crow	<i>Corvus splendens</i>	Kaki	Corvidae
6	House Sparrow	<i>Passer domesticus</i>	Pichuka	Passeridae
7	Jungle Myna	<i>Acridotheres fuscis</i>	Adavi gorinka	Sturnidae
8	Rose-ringed Parrot	<i>Psittacula krameri</i>	Ramachiluka	Psittacidae
9	Peacock	<i>Pavocrystatus</i>	Nemali	phasianadae
10	Peahen	<i>Pavocrystatus</i>	Nemali	phasianadae
11	Crane	<i>Antigone canadeisis</i>	Konga	gruieae
12	Duck	<i>Anas poecilorhyncha</i>	bathu	Anatidae

Table 03: Checklist of reptiles

SI. No.	Common Name	Scientific Name	Telugu name	Family
1.	Indian rat snake	<i>Pytas mucosa</i>	Jerri pothu	Colubridae
2.	Cobra	<i>Naja naja</i>	Nagupamu	Elapidae

3.	Skink	<i>Lampropholis sp.</i>	Palabinde	Scincidae
4.	Oriental garden lizard	<i>Calotes versicolor</i>	Tonda	Agamidae
5.	Common House gecko	<i>Hemidactylus frenatus</i>	Balli	Gekkonidae
6.	Veiled chameleon	<i>Chamaeleo calyptratus</i>	Oosaravelli	Chamaeleonidae
7	Monitor lizards	Veranidae	Udumu	Veranidae

Table 04: Checklist of Amphibians

SI. No.	Common Name	Scientific Name	Telugu name	Family
1.	IndianToad	<i>Bufo melanostictus</i>	Kappa	Bufoidea

Table 05 : Insects

SI. No.	Common Name	Scientific Name	Telugu name	Family
1	Indian cockroach	<i>Blatella asahinai</i>	Jella purugu	Ectobiidae
2	American cockroach	<i>Periplaneta Americana</i>	boddinka	Blattidae
3	Black garden Ant	<i>Lasius niger</i>	Gandu cheema	Formicidae
4	Little Black ant	<i>monomorium minimum</i>	chali cheema	Formicidae
5	Mosquito	<i>Culex pipiens</i>	Doma	Culicidae
6	House fly	<i>Musca domestica</i>	Eaga	Muscidae
7	House cricket	<i>Acheta domesticus</i>	Kummari purugu	Gryllidae
8	Black field cricket	<i>Teleogryllus commodus</i>	Midutha	Gryllidae
9	Short horned grass hoper	<i>Schistocerca gregaria</i>	Midutha	Acrididae
10	Termite	<i>coptotermes formosanus</i>	cheda purugu	Termopsidae
11	Common spider	<i>crossopriza lyoni</i>	saalidu	Pholcidae

Table 06: Checklist of Pisces

SI. No.	Common Name	Scientific Name	Telugu name	Family
1.	Indian mackerel	<i>Rastrelliger</i>	bochchalu	<i>Rastrelliger kamagurte scombridae</i>
2	Bulls eye snake head fish	<i>Channa stiriatus</i>	Korra meenu	<i>channidae</i>

AUDITING FOR CARBON FOOTPRINT

1. What is the total strength of students and teachers in your College?
 - No. of Students -564
 - No. of Teachers -17
 - No. of Non-teaching staff-12
 - Gents-262
 - Ladies-331
 - Total-593
2. Total Number of vehicles used by the stakeholders of the college.(per day)
 - 75(74+1)
3. No. of cycles used
 - 25
4. No. of two wheelers used (average distance travelled and quantity of fuel and amount used per day)
 - 252 (4km/10L)
5. No. of cars used (average distance travelled and quantity of fuel and amount used per day)
 - 01(50km/2.5 L/day)
6. No. persons using common (public) transportation (average distance travelled and quantity of fuel and amount used per day)
 - 380(160km /16 L)
7. No.of persons using college conveyance by the students, non-teaching staff and teachers (average distance travelled and quantity of fuel and amount used per day)
 - NIL
8. Number of parent-teacher meetings in a year? Parents turned up (approx.)
 - 1(85)
9. Number of visitors with vehicles per day?
 - 20
10. Number of generators used per day (hours). Give the amount of fuel used per day.

➤ Nil- (ONLY IF POWER SUPPLY INTRUPTED)

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

➤ NIL

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

➤ NIL

13. Amount of taxi/auto charges paid and the amount of fuel used per month for the transportation of vegetables and other materials to canteen.

➤ NIL

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

➤ NIL

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

➤ Rs30000

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

➤ NIL

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

➤ 1.Encourage the students to use public transportation.

➤ 2.Staff members should update their vehicles to electronic versions.

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

➤ YES

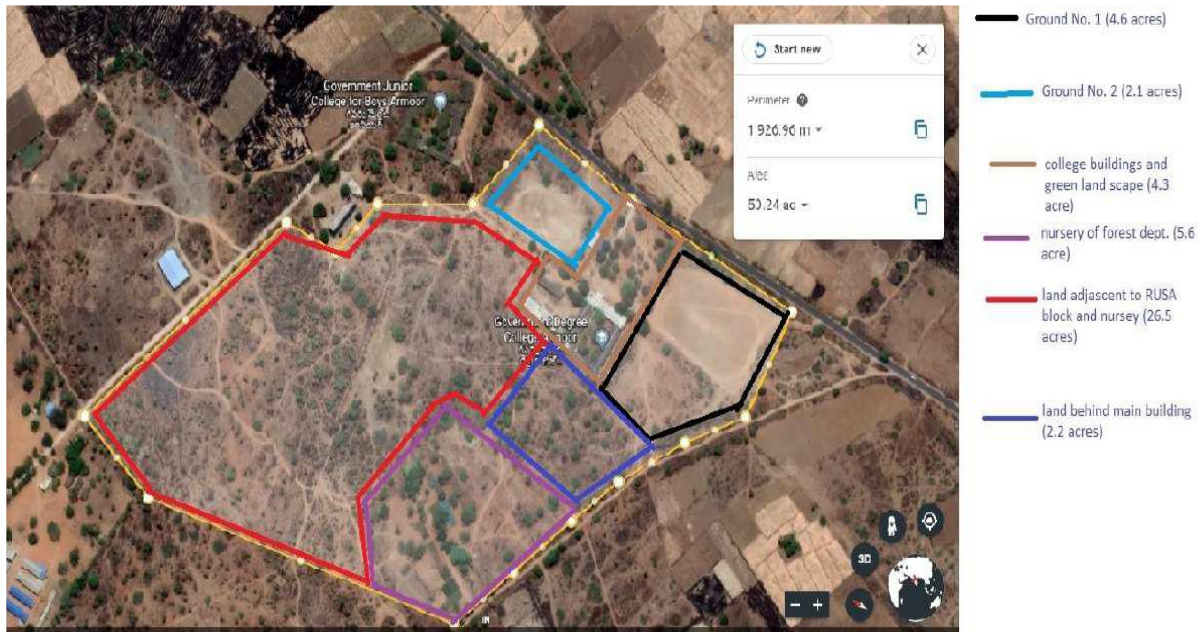
19. Window Floor ratio of the Rooms Good/Not Enough

➤ GOOD

**Air quality Determination:
Air Quality Index (parameters studied/recorded/ Seasonal):**

NO ₂	18/m ³ (AQI – 21) (GOOD)
NO	10ppb
O ₃	25.7 µg/m ³ (AQI – 25) GOOD
PM _{2.5}	18.0 µg/m ³ (AQI – 18) (GOOD)
PM ₁₀	89.0 µg/m ³ (AQI – 89) (SATISFACTORY)
CO	170.0 µg/m ³ (AQI – 08) (MODERATE)
Humidity	67.0%
Barometric Pressure	1011.0 hpa
Wind Speed	5.39 m/sec
Wind Direction	58.0 degrees
Sun Rise	6:02 A.M.
Sun Set	6:30 P.M.

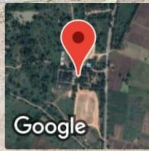
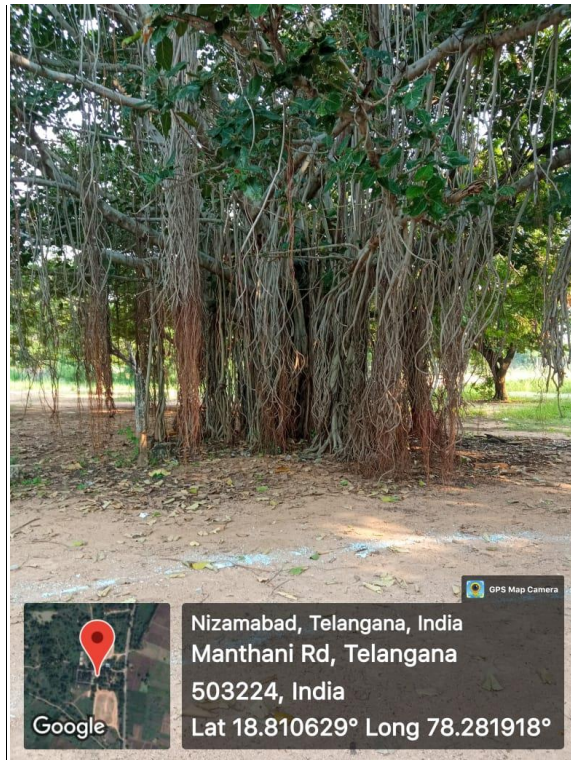
SOURCE:CPCB CHANDRAPUR MPCB DT :21-03-2023



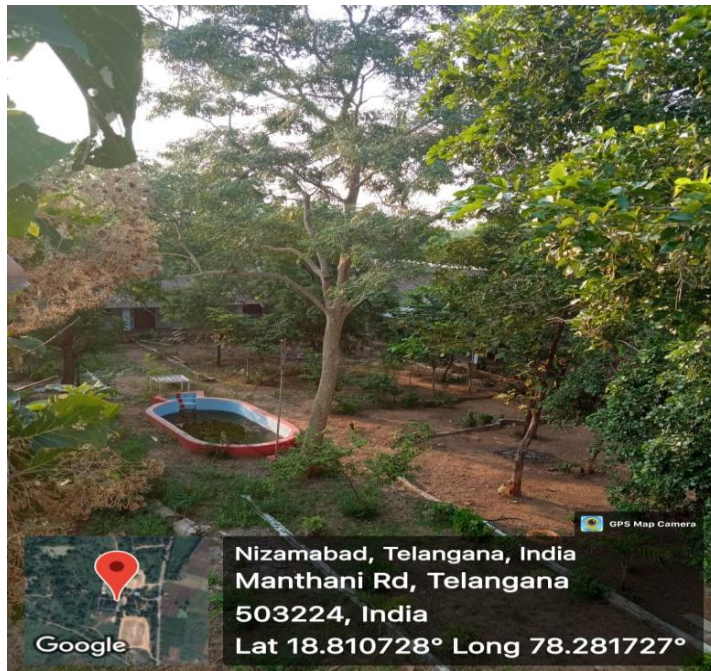
Google map view of College



Solar power panel of GOVERNMENT DEGREE COLLEGE ARMOOR



Nizamabad, Telangana, India
Manthani Rd, Telangana
503224, India
Lat 18.810629° Long 78.281918°



Nizamabad, Telangana, India
Manthani Rd, Telangana
503224, India
Lat 18.810728° Long 78.281727°



FUTURE ACTION PLANS

1. Year wise internal audit on green, water and energy to be conducted by respected Lecturers.
2. Proper management and month wise mapping of water and energy usage to be conducted by monitoring the same in the records.
3. Department wise awareness programs to be organised by department staff representative to each committee.
4. Proper waste water management.
5. Proper monitoring and disposal of waste discharge from chemical laboratories.
6. Implementation of sign boards and indications of water and energy usage.
7. Energy maintenance by proper usage of electrical appliances.
8. Vegetable and agriculture crop planting has to be implemented using advanced technologies.
9. Marketing of vegetables and crops cultivated in the campus.

The students and staff who are active in green related activities have a clear vision about how and what should be planned for a greener campus. They think that planting of more saplings during the world environment day would cater more awareness and enthusiasm in students who join afresh each year. The college is also planning to initiate plant a tree/adopt a tree program where each student will be planting a sapling and taking care of it during his or her stay in the college. Although the college follow a university curriculum by implementing several such awareness program in their academic and non-academic activities promote more students turn to green activities.

CONCLUSIONS

1. The authorities are keen to make the campus a green campus. This is fulfilled by setting conservation of water and energy.
2. Staff and students are aware about the commitment of the institute towards the society.
3. Green audit at times makes to understand the effect of implications towards greenness and conservation of water and energy.
4. The college functions are oriented with an eco-friendly approach that enables the student community to develop a genuine approach on conservation of nature, and natural resources.
5. The results presented in the present report would be helpful to make future action plans to develop more sophisticated ideas in bringing more values in future efforts towards conservation of biodiversity, water and energy.
6. It is also resolved to participate in national sustainable ranking by MGNCRE in the upcoming Academic year.

THE END