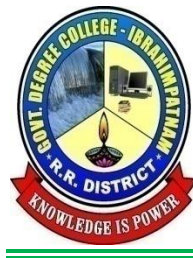


GREEN AUDIT 2020-21



**GOVERNMENT DEGREE COLLEGE,
IBRAHIMPATNAM, RANGA REDDY DISTRICT,
TELANGANA**



**Submitted to
The Commissioner,
Collegiate Education
Nampally, Hyderabad**

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**GOVERNMENT DEGREE COLLEGE, IBRAHIMPATNAM
RANGAREDDY DISTRICT**

CERTIFICATE

Certified that the Green Audit has been conducted in Government Degree College, Ibrahimpatnam for the year 2020-21 vide proceedings of the CCE, Hyderabad Rc.No. CCE/AC/QLTY/NAAC/1/2021-ACADEMIC CELL and submitted report to the Commissioner of Collegiate Education, Hyderabad

Sl.No.	NAME	DESIGNATION (College)	DESIGNATION (Committee)
1.	Dr.K. Prabhu	PRINCIPAL	CHAIPERSON
2.	Dr. K. Jyotsna Prabha	Principal, GDC, Hayath Nagar	Special Invitee
3.	Smt.T.Radhika	National Green Corps, Pollution Control Office, Sanathnagar	Special Invitee
4.	Dr. T. Sree Lakshmi	Assistant Professor of Botany Coordinator, IQAC	Vice-Chairperson &Coordinator
5.	Dr. S. Narsaiah	Asst. Professor of Zoology,	Member
6.	Dr.B.Rajitha	Asst Professor of Chemistry	Member
7.	G. Mallikarjun	Asst Professor of Chemistry Program Officer, NSS Unit - I	Member
8.	Satyanarayana. M	Asst Professor of Physics	Member
9.	Smt P. Vijayalaxmi	Asst Professor of English Program Officer, NSS Unit - II	Member
10.	Smt. K Sunitha	Assistant Professor of Mathematics	Member

PRINCIPAL

‘ We can forego the material benefits but we cannot forgo the fruits of educational benefits’ Dr. B.R Ambedkar

I. INTRODUCTION

Government Degree College, Ibrahimpatnam was established in the year 2008-09 to cater to the higher educational needs of the semi urban- rural area surrounding the Ibrahimpatnam mandal. The college is affiliated to the prestigious Osmania University of Hyderabad. The college had its humble beginning offering three conventional programmes [B.A (EHP)], B.Com(Gen), B.Sc (MPC) and two self – financing programmes [B.com (C.A)] & B.Sc (MPCS)]. The college, from 2008, has been functioning on shift basis in the premises Government Junior College, Ibrahimpatnam. Initially the students from the surrounding villages didn’t have ample opportunities to secure higher education except to travel 35 to 40 kilometers into the Hyderabad city and get admitted in degree colleges that extended costly education. Many of the students hailing from these villages and areas are socially and economically marginalized. Hence, the establishment of Government Degree College, Ibrahimpatnam was a blessing to the students willing to pursue higher education. With its topographical advantage, Ibrahimpatnam attracted the young adults from other districts of the state with aspirations of securing greater opportunities.

The college has been accorded 2f status by UGC, New Delhi. The Commissioner of Collegiate Education, Telangana, a State Government of Telangana initiative, is the administrative organ of all Government Degree Colleges in the state of Telangana. The CCE, Telangana has been in constant endeavors to develop the government degree colleges in the state in all the areas for providing quality education to the aspirants of undergraduate education.

Educational institutions are no more ivory towers and teaching shops today. They have to play a very proactive role not only in academic sphere but also in many dimensions like research and extension with a human face to serve the society at large. In these days of globalization and

liberalization, the very existence of an institution depends very much on its effective and efficient functioning in diverse fields. In view of the dynamics in the fields of teaching, learning, assessment, evaluation and research the Government Degree College, Ibrahimpatnam has been designing, devising, and adopting various strategies and policies to accomplish the formulated vision, mission, aims and objectives.

VISION, MISSION, AIMS & OBJECTIVES:

VISION: We understand that knowledge is always the power and privilege of all the students. Our institution visualizes comprehensive development of the students with an emphasis on independent learning, critical understanding, innovative application, rational thinking, and value orientation that would shape them into citizens for all situations.

MISSION: The institution marches ahead with the key mission points of

- Providing quality education to all the students by incorporating innovative technology, research orientation, skill up gradation and societal development methods.
- Undertaking regular skill up gradation and innovative teaching, learning programmes for the faculty of the institution.
- Undertaking measures for the development of infrastructure in the institution for effective and efficient functioning of the college.

AIMS & OBJECTIVES:

- To make education accessible to all the students.
- To impart all necessary skills to face challenges of competitive world.
- To imbibe human values and scientific temper to be informed citizens.
- To promote creative, innovative and research thinking.
- To enable the students to pursue higher education in reputed universities.
- To enhance the quality of education.

STRENGTHS, WEAKNESSES, OPPORTUNITIES & CHALLENGES (SWOCs)

INSTITUTIONAL STRENGTHS:

- **Topographical Advantage:** The college is in the sub-urban area that is close to the capital city of the state of Telangana, Hyderabad. As the college is very close to the city, it attracts large number of students from the other districts of the state.
- **Spacious Campus:** The government allotted 5 acres of land in the middle of the town. This gives an opportunity for expansion of buildings. Construction of building is underway with a government budget of Rs.2.25 crore sanctioned by the State Government of Telangana in 5 acres of land. **The land is being used for laying courts, tracks and developing greenery.**
- **Student Strength:** The present student strength of the college is 586. There is ample scope for the strength of the students to reach 750 this academic year.
- **Courses Offered:** The number of courses that are offered by the institution is 16 under Choice Based Credit System (CBCS).
- **Human Resources:** The total number of sanctioned posts in teaching is 22 out of which 14 posts are filled up. The total number of non-teaching staff posts sanctioned is 12 and all the 12 are filled up.
- **Qualified Faculty:** Out of the 14 members of faculty working in the college 8 are Ph.D holders.
- **Research & Publications:** Members of faculty are in continuous pursuit of research by presenting papers in international/national level seminars/ conferences/ workshops. Members of faculty published books with ISBN numbers and also different genres.
- **CQAMS:** The College Quality Assurance Management System undertakes quality initiatives for the overall development of the college in all spheres.
- **Teaching Learning Aids:** Digital classrooms, projectors, virtual classrooms, green boards, computer systems are available as teaching learning aids.

- Best Practices: Best practices are adopted by every department.
- Inter disciplinary Activities: Forums, seminars are organized for interdisciplinary learning among the members of faculty and students.
- Participatory Governance: There are about 30 committees in the college that encourages participatory governance with the involvement of all the members of faculty as coordinators/ members on the committees. Students are on the committees as members which encourage their participation in decision making and implementation.
- Effective & Efficient Administration (CAIMS): Technology is used for effective and efficient administration. College Administration and Information Management System is being implemented by the institution.

INSTITUTIONAL WEAKNESSES:

- Incomplete Buildings: The construction of building has been incomplete for the last two years.
- Lack of Infrastructure: There is a dearth of infrastructural facilities in the college. Adequate laboratories are yet to be established. The student computer ratio is highly disproportionate.
- Lack of Academic Flexibility: As the institution is affiliated to state university the college does not have a say in deciding programmes; offering courses and conducting examinations.
- Insufficient & Lack of Timely Funds: The institution is totally dependent on the funds received from the state government and funding agencies like UGC, RUSA & MHRD. The college has applied for the accord of Section 12B status of UGC that will enable the central funding agencies to sanction funds. The institution is waiting eagerly for UGC, New Delhi to accord 12B Status.
- Dropout Ratio: The dropout ratio of the students is low.

INSTITUTIONAL OPPORTUNITIES:

- **Education to Diverse Population:** There is a high potential to cater to the educational needs of the marginalized and marginalised sections of the society.
- **Introduction of New Programmes & Courses:** More number of programmes like BBM and new courses that are in high demand can be introduced.
- **Add-on/ Skill Oriented/ Professional Courses:** New add-on, skill oriented, employment generating professional courses can be introduced.
- **PG Center:** The College is at the outskirts of the capital city and hence establishment of a PG Center is also feasible and possible.
- **Infrastructure:** Institutional infrastructure can be procured through securing funds.
- **Utilization of Available Land:** The land that is available can be put to optimum utilization.
- **Collaborations:** More number of collaborations can be made to improve the prospects of placements as the college is close to the capital city, Hyderabad.
- **Involvement of Stakeholders:** The involvement of alumni, public representatives, elite of the town, industrialists can be strengthened for the overall development of the institution.
- **Augment Funds:** The College can augment financial resources to improve infrastructure and research facilities.
- **NAAC Accreditation:** The college will be able to project itself as an institution of excellence with the help of NAAC accreditation.
- **UGC Status:** The institution will become eligible for grants from funding agencies like UGC, RUSA and MHRD as and when 12B Status is accorded.

- Green Initiatives: As there are open spaces green initiatives can be taken up extensively.

INSTITUTIONAL CHALLENGES:

- Absenteeism and Dropouts: Students taking admission into the college hail from economically poor sections and so they are forced to take up part time jobs to support their families. This leads to absenteeism and dropouts.
- Multicultural Backgrounds of the Students: Students' seeking admission into the institution hail from varied cultural backgrounds. To understand the psyche is a challenge to the institution.
- Influence of Smart Phones and Internet: The use of internet by the young adolescents is quite alarming. This challenge must be managed prudently.
- Semester System: Adapting to the semester system and CBCS system is turning out to be challenge for the institution as the students come from annual system.
- Classrooms and Laboratories: The college is functioning on shift basis partly in Government Junior College premises, Ibrahimpatnam.

COLLEGE PROFILE

Name of the College : Government Degree College, Ibrahimpatnam
Address : Government Junior College Premises, Ibrahimpatnam, Ranga Reddy district, Telangana, 501506
Contact Info : 9154806832, prl-gdc-ibp-ce@telangana.gov.in
Campus Area : 2.5 acres (Junior College Premises)
Built-up Area : 2.5 acres

Does the building have ventilators for natural air flow in all rooms: YES

STUDENT AND FACULTY STRENGTH OF THE COLLEGE:

Strength	Male	Female	Total
No of students	436	150	586
No of Teaching Staff	06	08	14
No of Non-Teaching staff	06	03	09

Physical Structure

The available land of the college : **2.5** acres.

The built-up area of the college : **1.5**acres

No. of Class Rooms	12*
No. of Laboratories	02*
No. of Conference halls	01*
Library Halls	01*
Auditorium	-
Canteen	-
Principal's Chamber	01
Staff Room	01
Office Room	01*
IQAC Room	-
Examination Branch	01*

*Shared for multipurpose

INTERNAL GREEN AUDIT TEAM

The following green audit committee has been constituted for the process of taking up environmental audit at the institutional level

Sl.No.	NAME	DESIGNATION (College)	DESIGNATION (Committee)
1.	Dr.K.Prabhu	PRINCIPAL	CHAIPERSON
2.	Dr. K. Jyotsna Prabha	Principal, GDC, Hayathnagar	Special Invitee
3.	Smt.T.Radhika	National Green Corps, Pollution Control Office, Sanathnagar	Special Invitee
4.	Dr. T. Sree Lakshmi	Asst Prof of Botany Coordinator & IQAC	Vice-Chairperson &Coordinator
5.	Dr. S. Narsaiah	Asst. Professor of Zoology,	Member
6.	Dr.B.Rajitha	Asst Professor of Chemistry	Member
7.	G. Mallikarjun	Asst Professor of Chemistry Program Officer, NSS Unit - I	Member
8.	Dr. M. Satyanarayana	Asst Professor of Physics	Member
9.	Smt. P. Vijayalaxmi	Asst Professor of English Program Officer, NSS Unit - II	Member
10.	Smt. K. Sunitha	Assistant Professor of Mathematics	Member

SIGNIFICANCE OF ENVIRONMENTAL AUDIT/GREEN AUDIT:

Environmental Audit/Green Audit is a process of systematic identification, quantification, recording, reporting and analysis of components of environmental diversity of different establishments based on their impact on the eco-friendly ambience inside and outside the concerned establishments/organizations/institutions.

Green audit can be a useful tool for a college to determine how and where they are using the most energy, water, and other resources; the college can then consider how to implement changes and make savings. It can also be used to determine the type and volume of waste, which can be used for a recycling project or to improve waste minimization plan. It can create health consciousness and promote environmental awareness, values, and ethics. It provides better understanding of green impact among the students, members of teaching and non-teaching staff and other stakeholders both on and off campus. If self-enquiry is natural and necessary outgrowth of quality education, it could also be stated that institutional self-enquiry is also natural and necessary outgrowth of an educational institution that intends to establish quality in all the spheres. Thus, it is imperative that the college evaluate its own contributions toward a sustainable future. As environmental sustainability is becoming an increasingly important issue not only for the nation but the entire world, 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 carbon dioxide from the environment. The National Assessment and Accreditation Council, Bengaluru (NAAC) has metric weight ages for the higher educational institutions holding a Green Audit Certification. Moreover, it is part of a social responsibility of the higher educational institution to ensure that

they contribute towards the reduction of global warming through carbon footprint reduction measures.

In recent times, the Green Audit of an institution has been of a paramount importance for self-assessment of the institution that reflects the role of the institution in mitigating the present environmental problems.

OBJECTIVES:

The main objective of the green audit is to promote the environment management and conservation measures specifically on the college campus and outside the campus in general. The purpose of the audit is to identify, quantify, describe, and prioritize frame work of environment sustainability in compliance with the applicable regulations, policies and standards. The main objectives of carrying out Green Audit are:

1. To increase the Green coverage of the campus thereby we are creating sustainable ecosystem
2. To decrease the pollution impact of the campus by reducing carbon foot print, enhancing the use of renewable vehicles such as bicycles & Electrical vehicles, Utilizing public transport system as much as possible
3. Reducing the water wastage through monitoring the water leakage and use of Drip irrigation, Enhancing the ground water level through water shed management
4. Minimizing the Electrical power consumption by using LED, CFL, Solar panels etc.,
5. Protection of Endangered species of flora & fauna through awareness programs in the campus
6. Establishing recycling center or facility for used news papers, Exam papers etc., Arrangement of bin system for reusable bottles and cups .
7. To introduce and create awareness among the students and other stakeholders to the real concerns of environment and its sustainability.
8. To protect the environment and minimize the threats posed to human health through analyzing the pattern and extent of resource use of the campus.

GOVERNMENT DEGREE COLLEGE,IBRAHIMPATNAM– GO GREEN INITIATIVES

A clean and healthy environment aids effective learning and provides a conducive learning environment. To achieve this objective, the institution has shown the commitment towards conducting **green auditing**. The institution adopted diverse activities that are environment

friendly such as awareness programs on the environment, campus farming, planting more trees on the campus etc. Green Auditing is done once every year by Eco Club to assess and upgrade plantation on the campus.

Energy auditing deals with the conservation and methods to reduce energy consumption related to environmental degradation. As it is said ‘energy can neither be created nor destroyed’, the institution acknowledges that energy, in any form, need to be consumed sparingly.

The institution conducts internal energy audit to address to issues like energy consumption, energy sources, energy monitoring and measures required for adopting electrical appliances that consume minimum energy. Tube lights and bulbs are replaced with LED bulbs, ceiling fans that consume less energy are arranged, and arrangements are made for proper ventilation and air flow into all the rooms so as to use energy to the utmost minimum.

Beyond the campus environment promotion activities are taken by NSS and Eco Club.

Our college which is in Ibrahimpatanm is on the outskirts of southern part of Hyderabad. To commute to college on bicycles is not practicable because, from any part of Hyderabad to travel to the college, the distance on an average, is around 40 kms. Despite this, the institution encourages the teaching staff to **pool up and travel in a single vehicle thereby** contribute to reduce air pollution and also traffic problem.

- The teaching staff who come from nearby areas are encouraged to come on bicycles, for whom, a separate parking lot is made available.
- Students are encouraged to come on bicycles as they stay in nearby hostels and villages.
- Majority of the students cannot afford to travel from distant places and thereby stay in the government funded hostels and commute to college through public transport and bicycles.
- Students and few staff members who stay in the nearby areas of the campus attend the college by pedestrian-friendly roads.
- The institution sensitizes the staff and students to deal with the threat of plastic, a major contributor to worldwide pollution. To prevent the menace of plastic the institution has launched a program called “**Zero Plastic with Fantastic Nursery**”. Since we believe in eco-friendly campus; everyone is discouraged from using plastic

bags and adopted the 3 R's Reasonable use/Reuse/Recycle. Signboards/Posters are displayed on the college campus for encouraging ideas of a plastic free environment.

- Quick Response Code (QR – Code) is arranged to all the plants and trees in the campus by the Department of Botany. This provides for a easy understanding of the common name, botanical name and other features of the plant. Separate area is earmarked for the medicinal plants. Saplings of the plants with medicinal value are procured from different parts of the state and are planted in the college.
- Environment friendly Ganesh idols are freely distributed to the students; faculty and staff of the o educate them on the alarming issues of environment. Idols are also distributed to the local community.
- The institution has made a stock of steel plates, glasses and ceramic cups, which shall be used for all the occasion instead of plastic.
- As a part of green initiative one of the primary goals of the institution is to minimize the use of paper and shift to soft technology. Right from admission process to the issue of transfer certificate to the student paper is replaced with online technology. The institution has adopted DOST initiative for student admissions. According to this initiative, the student will apply for admission online. All the information of the student is uploaded online instead of filling the same in the application form. This initiative has reduced the usage of paper drastically. Biometric attendance to both students and staff has brought a paradigm shift from paper to online technology. The institution took a huge leap in this direction by the introduction of a utilitarian initiative called CAIMS (College Administration Information Management System). This software is designed to process students' data, academic and financial information and also helps in issue of certificates like bonafide and transfer certificates. CAIMS has 05 criterions which are as follows:

1. SIMS : Students Information Management System.
2. MMS : Marks Management System
3. CMS : Certificates Management System
4. AAMS : Academic Audit Management System
5. AMS : Accounts Management System.

- Recently HDFC Bank has collaborated with all the colleges of the state of Telangana to provide paperless bank service to the students that includes deposit and disbursement of scholarship and stipend.
- E-newspapers are also forwarded to staff online to gradually habituate them to reading the daily news on screen thereby an attempt may be made to discourage the newspaper soon.
- Our institute has ample open space with good number of trees and plants. Green practices are conducted every year through Department of Botany, Eco Club, NSS and NCC units of the college. Flora and Fauna of the campus are enriched with trees, shrubs, herbs, climbers and different types of bird species. The college periodically conducts an internal Green Audit of the campus that is being documented for the purpose of certification from authorized agencies.
- Haritha haaram is one of the flagship programs of Government of Telangana which aims at planting saplings all over the state. NSS wings of our institution collaborate with Horticulture Department and take lead in implementing Haritha haaram scheme in and around the college.

WATER MANAGEMENT

By

G. Mallikarjun

Dr. B. Rajitha

Department of Chemistry

WATER MANAGEMENT

‘Water is the driving force of all nature’. – Leonardo da Vinci.

Famous English author W. H. Auden puts the significance of water in a poetic form when he says, ‘Thousands have lived without love, not one without water’. Undoubtedly, water is an important biological factor that plays crucial role in determining the health of people. Most of the diseases in developing countries are caused by water due to its poor quality. According to a survey made by Central Pollution Control Board, only 1.6% of the 90% water supplied to towns and cities of India is treated. Out of the 1.6% water which is treated by various municipal bodies and water plants, only half reaches the households with good quality as treated. The following data is provided to explain the water management in our college.

Details of Water management

SNO	PARAMETERS	RESPONSES	REMARKS
1	SOURCE OF WATER	Bore well	Using Junior college premises
2	NO OF WELLS	0	
3	NO OF MOTORS USED	1	Using Junior college premises
4	HORSEPOWER USED	5 HP	Using Junior college premises
5	DEPTH OF WELL	400 feet	
6	WATER LEVEL	40 feet	
7	NUMBER OF WATER TANK	2	Using Junior college premises
8	CAPACITY OF TANK	2000	
9	QUANTITY OF WATER PUMPED	1000 litres	
10	ANY WATER WASTAGE/WHY?	No	
11	WATER USAGE OF GARDENING	yes	
12	WASTEWATER SOURCES	Drainage water	

13	USE OF WASTEWATER	No	
14	FAITH OF WASTEWATER FROM LABS		
15	WHETHER WASTEWATER FROM LABS MIXED WITH GROUND WATER	No	
16	ANY TREATMENT FOR LAB WATER	No	
17	WHETHER ANY GREEN CHEMISTRY METHOD	No	
18	NO. OF WATER COOLERS	No	
19	RAINWATER HARVEST AVAILABLE	1	Present in Junior college premises
20	NO OF UNITS AND AMOUNT OF WATER HARVESTED	1 unit 10000 litres	Present in Junior college premises
21	ANY LEAKY TAPS	No	
22	AMOUNT OF WATER LOST PER DAY	No	
23	ANY WATER MANAGEMENT PLAN USED	No	
24	ANY WATER SAVING TECHNIQUES FOLLOWED	No	
25	ARE THERE ANY SIGNS REMINDING PEOPLE TO TURN OFF THE WATER		

RESULTS OF WATER QUALITY

PARAMETERS	BORE WELL WATER	FILTERED WATER	Desirable Portable Limits as per IS:10500
DISSOLVED OXYGEN Mg/L	3.10	1.90	Not specified
ACIDITY Mg/L	nil		
CHORIDE Mg/L	15	15	<352

HARDNESS(TOTAL)	376	06	<300
CONDUCTIVITY (μ S)	1149 μ .Mhos/cm	97	---
PH	6.80	6.55	6.50-8.50
TOTAL DISSOLVED SOLIDS (PPM)	758	58	<500
Fluoride	0.55	0.10	<1.0

S.NO	Queries related to water analysis	Responses
1	List out uses of water in your college	Plantation, Sanitation, Cleaning for classrooms
2	What are the sources of water in your college?	Bore well (01)
3	How many well are there in your college	One Bore well (One submersible 5HP)
4	Number of Motors used for pumping water from each well	ONE
5	What is the total horsepower of each motor?	5 HP
6	What is the depth of each well	400 feet
7	What is the present depth of water in each well?	40 feet
8	How does your college store water?	Overhead tanks in Junior college premises
9	Quantity of water Store in your overhead water tank	4000 litre
10	Quantity of water pump everyday	2000 litre
11	If there is water wastage specify why	NO
12	How can the wastage be prevented stop?	Use for Plant Maintenance

13	Locate the point of entry of water and point of exit of wastewater in your college	Drainage canal
14	Where does waste water come from?	From college R.O. Plant
15	Where does the wastewater go?	Plant maintenance.
16	What are the uses of wastewater in your college?	For Plant maintenance
17	What happens to the Water used in your lab weather it gets mixed with ground water	NO
18	Is there any treatment for the lab water?	NO
19	Whether Green Chemistry methods are practiced in your lab	NO
20	Write down four ways that could reduce the amount of water used in your college	Leakage of taps controlled by the committees, Sign boards, Awareness Programmes, Monitoring pipelines
21	Record water use from the college water metre for 6 months	NO
22	Bi monthly water charges paid to water connections if any	NO
23	Number of water coolers amount of Water used for day	NO
24	Number of water taps amount of Water used for day	08/2000 (along with Junior college).
25	Number of bathrooms in staff rooms common hostel amount of Water used for day	NO (But 3 bathrooms used in junior college building premises)
26	Number of toilets urinals amount of Water used for a day	NO (But 15 urinals,3 toilets used in junior college building premises)
27	Number of water taps in the canteen amount of Water used for a day	NO
28	Amount of Water used for a day for Garden use	500 litre
29	Number of water taps in Laboratories amount of Water used per day in each lab	NO

30	Total use of water in each hostel	NO
31	At the end of the period compile a table to show how many litres of water have been used in the college for each purpose	NO
32	Is there any way Water used for agriculture purpose	To be planned in the future
33	Does your college harvest rainwater?	YES
34	If yes how many rainwater harvesting units are there?	ONE (Present in junior college building premises)
35	How many of the taps are leaking amount of water lost per day?	NO
36	Are there signs reminding people to turn off the water?	YES
37	Are there any waterless toilets?	NO
38	How many water fountains are there?	NO
39	How many water fountains leaky	NO
40	Is drip irrigation used to water plants outside? yes / no	NO
41	How often is the garden watered?	Every Alternate day
42	Quantity of water used to water the ground	ZERO
43	Quantity of water used for bus cleaning	NO
44	Amount of water for other uses	NO
45	Area of the college land without tree or building canopy	500 square yards
46	Is there any water management plan in the college?	NO

47	Are there any water saving techniques followed in your college what are they	Minimise the leakage of taps - Awareness to students through sign boards and programmes
48	Please share some idea for how your college is could save more water	To increase ground water level through harvesting pits and injection wells



vitro labs

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Web : www.vitrolabs.net, www.vitrolabsindia.com

(Recognized by the Ministry of Environment & Forest, GOI)

AN ISO 9001-2015
and
OHSAS
CERTIFIED COMPANY

TEST CERTIFICATE

Our Ref:	VL/A/511-002/2021	Issued to:
Reporting Date:	08.11.2021	THE PRINCIPAL, M/S. GOVERNMENT DEGREE COLLEGE, IBRAHIMPATNAM.
Received On:	05.11.2021	
Sample Particulars:	BORE WELL WATER	

TEST RESULTS

S.No.	Physical Parameters	Units	Result	Desirable Potable Limits as per IS: 10500
01	pH	--	6.80	6.50-8.50
02	Electrical Conductivity	μ. Mhos/cm	1149	--
Chemical Parameters				
03	Dissolved Solids	mg/l	758	<500
04	Total Hardness as CaCO ₃	mg/l	376	<300
05	Alkalinity to Phenolphthalein as CaCO ₃	mg/l	Nil	Not Specified
06	Alkalinity to methyl orange as CaCO ₃	mg/l	244	<200
07	Non-Carbonate hardness as CaCO ₃	mg/l	132	Not Specified
08	Calcium as CaCO ₃	mg/l	252	<187
09	Magnesium as CaCO ₃	mg/l	124	<123
10	Sodium as CaCO ₃	mg/l	192	Not Specified
11	Potassium as CaCO ₃	mg/l	06	Not Specified
12	Chloride as CaCO ₃	mg/l	15	<352
13	Sulphate as CaCO ₃	mg/l	121	<208
14	Nitrate as CaCO ₃	mg/l	10	<36
15	Fluoride as F	mg/l	0.55	<1.00
16	Total Silica as SiO ₂	mg/l	8.4	Not Specified
17	Iron as Fe	mg/l	0.02	<0.3
18	Colour	(Hazen)	COLOUR LESS	<5.0/Colourless
19	Turbidity	(NTU)	1.70	<5.0
20	Dissolved Oxygen	Mg/l	3.10	Not Specified

Note: The limits are applicable for Drinking Water Only.


Authorised Signatory

Environmental Studies like **Compressed Air Quality Testing**, Work Zone, Indoor Air Quality, Gravimetric Dust Sampling, Stack, AAQ Monitoring, Waste Water, Solid & Hazardous Waste Analysis and **Analytical Services** like Water, Ores, Minerals, Alloys, Petroleum Products, Food Materials, Soils, Poultry Feeds Etc.

Environmental Consultants & Analytical Chemists



vitro labs

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(Recognized by the Ministry of Environment & Forest, GOI)

AN ISO 9001-2015
and
OHSAS
CERTIFIED COMPANY

TEST CERTIFICATE

Our Ref:	VL/A0511-001/2021	Issued to:
Reporting Date:	08.11.2021	THE PRINCIPAL,
Received On:	05.11.2021	M/S. GOVERNMENT DEGREE COLLEGE,
Sample Particulars:	FILTER WATER	IBRAHIMPATNAM.

TEST RESULTS

S.No.	Physical Parameters	Units	Result	Desirable Potable Limits as per IS: 10500
01	pH	--	6.55	6.50-8.50
02	Electrical Conductivity	μ. Mhos/cm	97	--
Chemical Parameters				
03	Dissolved Solids	mg/l	58	<500
04	Total Hardness as CaCO ₃	mg/l	06	<300
05	Alkalinity to Phenolphthalein as CaCO ₃	mg/l	Nil	Not Specified
06	Alkalinity to methyl orange as CaCO ₃	mg/l	02	<200
07	Non-Carbonate hardness as CaCO ₃	mg/l	04	Not Specified
08	Calcium as CaCO ₃	mg/l	Nil	<187
09	Magnesium as CaCO ₃	mg/l	Nil	<123
10	Sodium as CaCO ₃	mg/l	42	Not Specified
11	Potassium as CaCO ₃	mg/l	Nil	Not Specified
12	Chloride as CaCO ₃	mg/l	15	<352
13	Sulphate as CaCO ₃	mg/l	31	<208
14	Nitrate as CaCO ₃	mg/l	Nil	<36
15	Fluoride as F	mg/l	<0.10	<1.00
16	Total Silica as SiO ₂	mg/l	<0.12	Not Specified
17	Iron as Fe	mg/l	Nil	<0.3
18	Colour	(Hazen)	COLOUR LESS	<5.0/Colourless
19	Turbidity	(NTU)	<1.00	<5.0
20	Dissolved Oxygen	Mg/l	1.90	Not Specified

Note: The limits are applicable for Drinking Water Only.


Authorised Signatory

Environmental Studies like **Compressed Air Quality Testing**, Work Zone, Indoor Air Quality, Gravimetric Dust Sampling, Stack, AAQ Monitoring, Waste Water, Solid & Hazardous Waste Analysis and **Analytical Services** like Water, Ores, Minerals, Alloys, Petroleum Products, Food Materials, Soils, Poultry Feeds Etc.

Environmental Consultants & Analytical Chemists

ENERGY MANAGEMENT

By

M. Satyanarayana

Department of Physics

Energy Management

The effective use of energy is to maximize benefits with minimum cost and enhance energy efficiency. The fundamental aim of energy management in the college is to provide services with low cost and least environmental effect.. The main objective of the energy management in our college is to achieve and maintain optimum energy by using various methods.

- To minimise energy costs / waste without affecting quality
- To minimise environmental effects and adapt the methods of using green energy such as solar energy.

Energy Audit:

The Energy Conservation Act, 2001, Energy Audit is defined as “the verification, monitoring and analysis of use of energy including submission of technical report containing recommendations for improving energy efficiency with cost benefit analysis and an action plan to reduce energy consumption”.Energy Audit is the key to a systematic approach for decision-making in energy management. It attempts to balance the total energy inputs with its use and serves to identify all the energy streams or sources in the college. Energy audit of the college or institution is an effective tool in defining and pursuing comprehensive energy management programme.

The type of Energy Audit to be performed depends on:

- Function and type of institute or college
- Potential and magnitude of cost reduction desired

Energy Audit Methodology

- Establish energy consumption in the college
- Estimate the scope for saving
- Identify immediate improvements or savings

The following data is provided to explain the energy management in our college.

S.No	Device Name	No of devices or Items
1	CFL and Incandescent bulbs	50+5=55
2	LED bulbs	5
3	Microwaves/oven	00
4	Stove	01
5	LPG	Nil
6	Petrol (bikes and cars)	15
7	Diesel (cars)	3
8	Fans	10
9	Computers	40
10	Printers	5
11	AC	Nil
12	Photocopier	Nil
13	Inverters	01
14	Electrical equipment in the Labs	12
15	Heaters	Nil
16	Streetlights in the college	Nil
17	TVs	01
18	Projectors	2

Usage of energy in the college in different ways:

S.No	Details of activity	Responses
1	Electricity bill amount for the last year	20,000
2	Amount paid for LPG cylinders	Nil
3	Are there any energy saving methods employed in the college?	Yes
4	How many hours CFL bulbs are used?	4
5	How many hours' fans are used in the college?	6
6	How many hours' computers are used in the college?	5 Hours
7	How many hours' photo copiers used in the college?	1 Hours
8	How many hours' electrical equipment is used in the college?	2 Hours
9	How many hours' heaters are used in the college?	Not Regularly
10	Do you run switch off drills at college	yes
11	Are your computers and other equipment put on power saving mode?	yes
12	What are the energy conservation methods adapted by your college?	1.Turn off lights after college hours 2.Turn off all electronic devices such computers, printers, copy machines, coolers etc

The best practices to reduce the energy use in our college

1. Turn off and unplug all appliances while not in use.
2. Turn off lights when you leave a room.
3. Use Public transportation as often as possible rather than driving. And ask to the students & staff to bring bicycles if possible.
4. Recycle and encourage others to recycle in your office.
5. Not to encourage print out of any formats. use soft copies rather than hard copies.
6. Keep your electronics on a low brightness setting to save energy
7. Installation solar panels on building to produce electrical energy which can be used for all purposes in the colleges
8. Installation of LED bulbs which can down 50% of energy
9. Usage of electrical bikes and cars for saving the nature by green revolution

Calculation of energy for electrical appliances

- Need to identify number of electrical appliances
- Need to note down the number of hours that we use electrical appliances

Average kWh per day=Watt*hours*1000

Average kWh per month=Watt*hours*1000*30

In general, we buy devices for usage as: Incandescent bulb-60W, CFL-18W, Microwave-1000W, stove-3000W, and kettele-2500W

The electricity used over the lifetime of a single incandescent bulb costs 5 to 10 times the original purchase price of the bulb itself. Light Emitting Diode (LED) bulbs have revolutionized energy-efficient lighting.

Let us compare LED and incandescent bulbs

LED bulbs:

- LED lights are up to 80% more efficient than traditional lighting such as fluorescent and incandescent lights.
- 95% of the energy in LEDs is converted into light and only 5% is wasted as heat.
- Less energy use reduces the demand from power plants and decreases greenhouse gas emissions.
- They generally consume 80% less power than incandescent lamp and 50% of CFL and 12W LED can replace 65W Incandescent
- Latest LED operate in a range of 2 to 4 volts and consume anywhere between 350mA and 1500mA.
- Now a days using latest of the LED manufacturing technology, manufacturers are able to produce LEDs that are not only super bright but also consume less power while producing light of higher intensity.
- Increased lumen output/reduced cost
- Greater standardization in LED lighting products

INCANDESCENT BULB

- Low efficacy
- The process of lighting the tungsten filament produces more heat than light
- The efficiency of these bulbs is very low as 90% of the energy is simply wasted to generate heat which no one actually needs.
- The bulb has a very short lifespan which means you must buy several bulbs throughout the year.
- Costs involved
- It is a well-known fact that incandescent bulbs consume a lot of energy compared to LED bulbs

Light Intensity Comparison between LED vs IL bulbs

Light output	LEDs	Incandescent Light bulb
Lumens	Watts	Watts
450	4-5	40
800	6-8	60
1100	9-13	75
1600	16-20	100

Cost Comparison between LEDvs IL bulbs

Energy Efficiency	LEDs	IL bulbs
bulbs	6-8Watts	60watts
30IL bulbs	329KWh/year	3285KWh/year
30IL bulbs	Rs 2246	Rs 22,486
Life span	50,000hours	1200hours

The above-mentioned example clearly shows that we can save huge amount of energy by using LED bulbs. We are going to install LED bulbs in classrooms, labs, and offices in a short period of time to save more energy. With this, we will reduce monthly electricity bill from Rs. 8000 to Rs.800 per month with using LED bulbs. It is going to be Rs.9600 per year for LED bulbs whereas Rs.96000 per year for IL bulbs. It is good to use LED bulbs which lead to enormous amount of energy savings (60 to 80%). We will be planning to establish solar lighting systems soon which could even more save energy. This will not only lead to energy conservation but also encourage use of non-conventional and environmentally friendly energy system. LEDs and solar energy are expected to become the primary domestic light sources soon.

Conclusion

The proper usage of electrical appliances and use the latest ones to save power. And encourage to upgrade the electronic instruments which is having high power savings, installation of solar panels and LED bulbs would help us to reduce or save more energy in the college campus. Addressing energy consumption, energy sources, energy monitoring, proper usage of lighting play a very important role to minimize or save energy. Energy use is clearly an important aspect of campus sustainability and development.

WASTE MANAGEMENT

By

P. Vijayalaxmi

Assistant Professor of English

Program Officer NSS Unit-II

Waste Management

Waste management indicates waste production and disposal of different wastes like paper, food, plastic, biodegradable, construction, glass, and recycling. Furthermore, solid waste often includes wasted material resources that could be unitized into useful products through recycling, repair, and reuse. Solid waste management is a burning issue, and we have to focus a lot on this issue to resolve. Unscientific methods of handling of solid waste can create environmental issues. The college must invest time to adapt scientific methods to handle waste management.

Waste generation from droppings of waste materials is a major solid waste generated in the campus. The waste is segregated within the college campus by providing separate dustbins for Bio-degradable and Plastic waste. The waste is generated from newspapers and magazines, but it is neither categorized nor sent for recycled. Furniture and metal waste are stored in a room for further processing.

E-waste is another major issue to resolve, and this is more dangerous or hazardous than other waste. E-waste is generated in college campus is very less. The E-waste and damaged computer parts is being stored properly for further processing. The institution has decided to contact approved E-waste management team to dispose of the E-waste in a scientific manner.

Methods adopted to reduce E-Waste

- Reduce the absolute amount of waste that is produced from college staff office.
- Make full use of all recycling facilities provided by Municipality
- Provide sufficient, accessible, and well-publicized collection points for recyclable waste, with responsibility for recycling clearly allocated.
- Important and confidential papers, exam papers after their validity to be sent for pulping.
- Vermi composting should be adopted on at least 200-300 sq. ft. of land

DETAILS OF COLLEGE AND CAMPUS

S.No	Details	Responses
1	The total strength of students, faculty, non-teaching members	612
2	No. of faculty	Sanctioned: 22 Regular working: 13 Contract working : 01
3	No. of students	586
4	No. of Non-teaching staff	Sanctioned: 12 Regular working: 01 Out Sourcing working : 07
5	What are the facilities in the college	Toilets, car and bike parking area
6	No. of class rooms	12
7	No. of office rooms, NCC, NSS games	01
8	What are main indicators to create disturbance near the campus	Stagnant water, public motor way
9	Does your college generate any waste?	Yes, used newspapers, exam papers, exam lab records and reports
10	How much quantity of waste that your college generate?	40-50kgs
11	E-waste	Very less
12	Solid waste	Yes, Stored solid waste in a proper area for further processing
13	Dry leaves	Yes, Decomposing and used it for plants food
14	Canteen Waste	No
15	Glass	No
16	Medical waste	No
17	Unused equipment	No
18	Napkins	Using dust bins to collect and call to Municipality for further processing
19	Is there any waste treatment in the college?	No
20	Is there any treatment for toilet?	Yes

21	What is the approximate quantity of waste generated per day?	50kgs
22	Why waste is a problem?	It requires scientific methods to decompose or recycle or process to save nature from pollution
23	Whether waste is polluting ground water?	Yes, if we do not arrange drainage channels properly, it may penetrate ground water leads pollute the ground water
24	Whether waste is polluting air?	Yes, if we do not follow proper scientific methods to segregate waste materials
25	How is waste generated in the college?	The students do not follow proper methods to decompose waste, segregation of waste into plastic, solid waste.
26	How many separate boxes do you think you would need to put into classroom to start a waste segregation and recycling?	3 1.Liquid waste 2. Solid waste 3. Recycle waste
27	Do you use recycled paper in college?	No
28	Is there any waste wealth program practiced in the college?	No

Future Best Practices to reduce waste and methods of segregations

- ✓ Establishing recycling center or facility for used newspapers, exam papers etc
- ✓ Arranging three bin system for liquid, recycle and organic waste
- ✓ Important and confidential papers after their validity to be sent for pulping.
- ✓ Arranging Vermi composting at least 200-300 sq. ft. of land
- ✓ Using a reusable bottle/cup for beverages on-the-go
- ✓ Using reusable grocery bags, and not just for groceries

Conclusion

The environmental awareness programmes initiated by the college shows how the college campus is going green. Few experts' recommendations, eco-friendly and scientific techniques are added to the waste management to minimize waste in the college campus. This may lead to the prosperous future in context of Green Campus & thus sustainable environment and community development.

GREEN CAMPUS MANAGEMENT

by

Dr. T.Sree Lakshmi
Department of Botany

AUDITING FOR GREEN CAMPUS MANAGEMENT

A Green Campus is a place where environmentally friendly practices and education combine to promote sustainable and eco-friendly practices in the campus. The green campus concept offers an institution the opportunity to take the lead in redefining its environmental culture and developing new paradigms by creating sustainable solutions to environmental, social, and economic needs of mankind.

Greening the campus is all about sweeping away wasteful inefficiencies and using conventional sources of energies for its daily power needs, correct disposal handling, purchase of environment friendly supplies and effective recycling program. Institution needs to work out the time bound strategies to implement green campus initiatives. These strategies need to be incorporated into the institutional planning and budgeting processes with the aim of developing a clean and green campus.

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

Ans. No. As the college in the Junior College Premises.

2. Do students spend time in the garden?

Ans. No,

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

Sl. No.	Name of the Plant	No. of Plants
1.	Tamarind(Chintha)	25
2.	Gulmohar	04
3.	Teak	06
4.	Kanuga	30
5.	Munaga, Drumstick	10
6.	Neem	10
7.	Neredu, Malabar Plum,Black Plum	02
8.	Pomegranate	10

9.	Sima Tangedu	01
10.	Tecoma	02
11.	Swarna Ganneru	08

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

Sl.No.	Name of the Plant
1.	Almond
2.	Polyathia
3.	Thurai, Gulmohar
4.	Teak
5.	Kanuga
6.	Munaga, Drumstick
7.	Neem
8.	Neredu, Malabar Plum, Black Plum
9.	Long-thorn Kiawe, Nalla Thumma, Thani.
10.	Tecoma
11.	Swarna Ganneru
12.	Tangedu
13.	Punica
14.	Papaya
15.	Guava

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

Sl. No.	Name of the Plant	No. of Plants
1.	Tecoma	05
2.	Kanuga	03
3.	Neem	05
4.	Teak	05
5.	Guava	04
6.	Punica	03
7.	Tamarind	15

6. Whether you display the scientific names of the trees on campus?

Ans. Yes



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

Ans. Junior College Premises

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

Ans. No

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

Ans. No

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

Ans. NA

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

Ans. 500 liters Source: Bore well

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

Ans. Dr. T.Sreelakshmi (Asst. prof. of Botany)

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

Ans. No

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

Ans. No

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

Ans. No

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

Ans. No

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

Ans. No

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

Ans. No. We have planned this year.

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

Sl. No.	Name of the Plant	No. of Plants
1.	Tinospora	20
2.	Tulasai	40
3.	Phyllanthus amarus	30
4.	Catharanthus roseus	50
5.	Aloe vera	10
6.	Azadirachta indica	15
7.	Eclipta Alba	20
8.	Tridax	15
9.	Momordica	10
10	Murraya	10

20. Any threatened plant species planted/conserved?

Ans. No

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

Ans. Yes, The activities of the club is to plant trees and take care of them.

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

Ans. No

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

Ans. No

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

Ans. No

25. Is there any irrigation system in your college?

Ans. No

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

Ans. No.

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

Ans. As a part of Haritha haram and Eco club nature awareness programmes are conducted on the campus.

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

Ans. In the haritha haram programme, every student adopts one plant each.

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

Ans. 1.5 acres.

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

Ans. i. Every college should maintain a nursery and should distribute plants in the surroundings of the college to the nearest houses.

ii. To increase green cover to urban schools and college premises through miya walkie forest method.

iii. Horticulture awareness among the farmers in the state of Telangana..

CARBON FOOTPRINT REPORT

by

G. Mallikarjun

Assistant Professor of chemistry

Program Officer, NSS Unit-I

CARBON FOOTPRINT STUDY OF THE CAMPUS

Introduction

Climate change is one of the greatest challenges facing nations, governments, institutions, business, and mankind today. Global warming and climate change are the foremost challenges facing mankind today. They will undoubtedly continue to be important politically and economically for generations to come. They will only be tackled effectively if actors at all levels in society including Industries, businesses, communities, and individuals take responsibility for, and attempt to minimize, their greenhouse gas emissions.

Scope

This carbon footprint report has been prepared in full accordance with the Greenhouse Gas Protocol (GHG), the most widely used international carbon calculation methodology, compatible with other GHG standards such as the ISO 14064, which also allows for direct integration with national and international greenhouse gas (GHG) registries.

a. Carbon Footprint Data

Total strength of GDCH

S No	DESCRIPTION	Male	Female	Total
1	Teaching Staff	06	08	14
2	Non-Teaching Staff	06	03	09
3	Students	436	150	586

Transportation means of stakeholders

- ✓ Total number of vehicles use by stakeholders of the college per day – 26
- ✓ Total number of two wheelers used (average distance travelled and quantity of fuel and amount used per day) – 80 (5Km/0.5 Ltr/ Rs 50)

- ✓ Total number of cars used (average distance travelled and quantity of fuel and amount used per day) – 06 (10 Km/1 Ltr/ Rs 100)
- ✓ Total number of cycles used – 10
- ✓ Total number of persons using common public transportation (average distance travelled and quantity of fuel and amount used per day)
- ✓ Total number 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
- ✓ Total number of parents attended for parent-teacher meetings in a year – 20
- ✓ Total number of visitors with vehicles per day – 10
- ✓ Total amount of fuel consumed for generators per day (hours) – Nil.
- ✓ Total number of LPG cylinders used in canteen. (Amount of fuel used per day and amount spent) – Nil
- ✓ Quantity of kerosene used in canteens/labs (Amount of fuel used per day and amount spent) – Nil
- ✓ Amount of taxi/auto charges paid and amount of fuel used per month for the transportation of vegetables and other materials to canteen – Nil
- ✓ Amount of taxi/auto charges paid per month for the transportation of office goods to the college – Rs 500
- ✓ Average amount of taxi/auto charges paid per month by the stakeholders of the college – Rs 1500
- ✓ Use of any other fossil fuels in the college (Amount of fuel used per day and amount spent) – Nil
- ✓ Suggest the methods to reduce the quantity of use of fuel used by the stakeholders/students/teachers/non-teaching staff of the college
 - 1) Encouraging car and bike pooling for reducing number of vehicles.
 - 2) Encouraging usage of cycles for students.
 - 3) Encouraging usage of public transport.

✓ Are the rooms in campus are well ventilated – Yes

✓ Window floor ratio of rooms – Good

Carbon Footprint Report

Total fossil fuel usage per day

S No	Vehicles	Distance (To and Fro)	Fuel/day/person	persons	Total fuel/day
1	Two wheelers	60 km avg	1 Ltr	20	40 Ltr
2	Four wheelers	80 km avg	4 Ltr	06	24 Ltr
3	Common Transport	100 km avg	10 Ltr/50 persons	586	120 Ltr
				TOTAL	184 Ltr/day

Total fossil fuel cost per day for transportation

184 Ltr X Rs 94 = Rs 17296

Cost of stakeholder transportation per month Rs 17296X22 days = Rs 3,80,512

FAUNAL DIVERSITY STUDIES





by



Dr.S.Narsaiah




Department of Zoology





Introduction:

Government Degree College, Ibrahimpatnam is situated in the city center in Government Junior College campus with limited area. The college is surrounded by a school, court complex and MRO office. These are the following fauna found in and around the college:

S. No	Scientific Name	Common Name	Phylum/Class	Picture
1.	<i>Pheretima Posthuma</i>	Earthworm	Annelida	
2.	<i>Rhopalocera</i>	Butterfly	Arthropoda	
3.	Lemon Pansy	Moth	Arthropoda	
4.	Termite	White ants	Arthropoda	
5.	<i>Periplaneta americana</i>	Cockroach	Arthropoda	
6.	<i>Vespula germanica</i>	Wasp	Arthropoda	

7.	Coleoptera	Dung Beetle	Arthropoda	
8.	Chilopoda	Centipede	Arthropoda	
9.	Musca domestica	Housefly	Arthropoda	
10.	Anopheles	Mosquito	Arthropoda	
11.	Araneae	Spider	Arthropoda	
12.	Melanoplus	Grasshopper	Arthropoda	
13.	Rana tigrina	Frog	Amphibia	
14.	Bufo	Toad	Amphibia	

15.	Lacertilia	Lizard	Reptile	
16.	Calotes versicolor	Garden Lizard	Reptile	
17.	Naja naja	Snake	Reptile	
18.	Corvus	Crow	Aves	
19.	Gruidae	Crane	Aves	
20.	Passeridae	Sparrow	Aves	

21.	Bos Indicus	Indian Cow	Mammalia		
22.	Canis	Dog	Mammalia		
23.	Sus	Pig	Mammalia		
24.	Funambulus	Squirrel	Mammalia		

Total 24 types of fauna were found in the campus.

REPORT:

S.No	Faunal Group	Number
1	Annelids	01
2	Arthropods	11
4	Amphibians	02
5	Reptiles	03
6	Aves	03
7	Mammals	04
TOTAL		24

CONCLUSION

Green Audit will create a greater appreciation and understanding of the impact of college's actions on the environment. Government Degree College, Ibrahimpatnam has successfully been able to identify the impacts on the environment through the various auditing practices. The green auditing exercise exercised the brains to mend and provided insights on practical ways to reduce negative impact on the environment. The green audit team that participated in this procedure has gained knowledge about the need for sustainability of environmental protection initiatives on the college campus. This will create an awareness around the use of the earth's resources not only on the college campus but also at the homes, local community and beyond involving the stakeholders of the college.

There is scope for further improvement, particularly in relation to waste, energy and water management. The college in recent years considers the environmental impacts of most of its actions and makes a concerted effort to act in an environmentally responsible manner. Even though the college does perform fairly well, there is scope for further improvement, particularly in relation to waste, energy and water management. The commendations in this report highlight many ways in which the college can work to improve her actions and become a more sustainable institution.

SUGGESTIONS & RECOMMENDATIONS

- Training programmes in solid waste management, liquid waste management, setting up of biodiversity garden, tree management, medicinal plant nursery, vegetable cultivation, water management, energy management, landscape management, pollution mitigation methods, and water filtration methods may be arranged.
- Display of environmental awareness board such as—Save water, save electricity, No wastage of food/ water, no smoking, switch off lights and fans after use, plastic free campus etc.,
- Give priority to environmental clubs and its programmes.
- Collaboration, MoUs and linkages with organizations, institutions, universities to take up environment conservation initiatives.
- Conduct exhibition on throw away plastic danger, recyclable products etc
- Display various slogans and pictures to protect environment.

- Adopt comprehensive system for disposing off e-waste.
- Different coloured waste bins to segregate waste and its easy collection.
- Involve All Stakeholders-Encourage involvement of government, foundations, and industry in supporting inter disciplinary research, education, and policy formation.
- Adopt an environment policy for the college.
- Avoid plastic/ thermocol plates and cups in the college level or department level functions.

- Introduce add-on courses eco-friendly income generating to all interested students.

- The college should adopt some additions in the vision and mission statements promoting compliance with environmental protection initiatives for sustainable development of the college.

ACKNOWLEDGEMENTS

The Green Audit Team and stakeholders of this college record their sincere, heartfelt indebtedness to Sri Naveen Mittal, Commissioner of Collegiate Education, Government of Telangana, Hyderabad for his constant support. All the officials of the CCE, Telangana have guided the institution at every stage in the preparation of this report.

We are indebted to the honourable Sri Manchireddy Kishan Reddy, MLA, Ibrahimpatnam, Smt K Sravanthi, Municipal Chairman, Ibrahimpatnam, other public representatives, officials of Ranga Reddy district, Municipality and Osmania University, Hyderabad who are instrumental for extending their unstinted support for the development of the institution in general and preparation of this report in specific.

We are thankful to Dr. K.Jyotsna Prabha and Smt. T. Radhika for obliging to be the special invitees on the green audit team of the college. This report would not have been complete without the support of the campus sharing Principal, Government Junior College, Ibrahimpatnam. Our thanks are also alumni, parents, elite of the town and all the NGOs of this area for the successful preparation of this report.

The report would not have been prepared without the fullest co-operation and active involvement of Internal Quality Assurance Cell, all the members of staff and students of this college with a team spirit. We are immensely thankful to all of them for their dedicated efforts.