# GOVERNMENT DEGREE COLLEGE, BELLAMPALLYDISTRICT:

MANCHERIAL, 504251 TELANGANA STATE

(Affiliated to Kakatiya University)



INTERNAL GREEN

AUDIT REPORT

SUBMITTED TO

COMMISSIONERATE OF COLLEGIATE
EDUCATIONTELANGNA

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#### INTERNAL GREEN AUDIT ASSESSMENT TEAM

- > Chairman: Sri M. Gopal, Principal-Water Audit
- ➤ Vice-Chairperson: Smt. J.V.R. Archana, IQAC Co-coordinator- Carbon Foot

  Print Audit
- External Member: Dr. V. Chakrapani, Principal, Identified College, Mancherial-Landscape Audit & Waste Audit
- ➤ Convener: Smt. P. Sreelatha, Asst. Professor of Zoology

#### **Members:**

- > Sri D. Thirupathi, Lecturer in Botany-Green Activities Audit
- > Sri P. Swamy, Lecturer in Chemistry- Student Clubs
- > Sri S. Srinivas, Lecturer in Physics- Energy Audit

#### INTRODUCTION

Green Audit is a process of systematic identification, quantification, recording, reporting and analysis of components of environmental diversity of the institute. It helps to improve the existing practices with the aim of reducing adverse effects of these on the environment concerned. It aims to analyze environmental practices within and outside of the institute which will have an impact on the eco friendly atmosphere. Green audit can serve as a useful tool for the institute to determine how and where they are using the energy, water and other resources and can then consider how to change and maintain the resources. It provides staff and students the awareness and better understanding the impact of greenery on the campus. It can create health consciousness and can promote environmental awareness, values and ethics. A clean and healthy environment helps in effective learning and provides a conducive learning environment.

As environmental sustainability is becoming an increasingly important issue for the nation, the role of higher educational institutions in relation to this aspect is more prevalent. In view of increasing damage to the environment, it becomes essential to adopt the system of green campus which will lead to sustainable development. The National Assessment and Accreditation Council, New Delhi has made it mandatory that all the higher educational institutions should submit the annual green audit report.

#### **OBJECTIVES:**

- ❖ 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

#### **METHODOLOGY**

The purpose of the present green audit of the college is to ensure whether the practices followed in the campus are in accordance with the Green Policy. The methodology includes the collection of the data, physical inspection of the campus, observation and review of the maintenance.

The prescribed questionnaires are used for acquiring basic information related to different categories like water, energy, waste management etc. With means of available equipment and facilities, the testing and analysis of the audit has been done.

#### ABOUT THE COLLEGE

The Government Degree College, Bellampally was established in the year 1987, with tireless efforts of the local delegates. It is the first and foremost higher educational institution of Bellampally. From 2005, the collegewas running in its current building, which is spread out in a sanctioned area of 5 Acres (built up area 7000Sq.Ft). The college is affiliated to Kakatiya University, Warangal, Telangana State and recognized by

U.G.C under 12(b) and 2(f) in the year 18-06-2012. The college is offering undergraduate conventional type of courses .At present college is offering B.Sc. Physical Science CBCS (Mathematics, Physics, Chemistry, Computer Science), B.Sc. Life Science CBCS (Botany, Zoology, Chemistry, Computer Applications/Computerscience), B.Com (Computer Applications and Taxation) and B.A. CBCS (History, Economics, Political science, Public Administration, Computer Application) courses are all under Choice Based Credit System, with15 full time and 4 Guest faculty and 570 students.

The college follows the prescribed curriculum and strives for its effective implementation. Choice Based Credit System was introduced in all the programs of the institution from the academic year 2016 – 2017. Courses on value based life skills are also part of the curriculum like Environmental Studies, Gender Sensitization, Communication Skills in English, Computer Basics

and Automation, Water Resource Management, Banking and Insurance, Soft Skills, Human Values and Professional Ethics etc. Students also participate in Extension lectures, Field Trips and student seminars, field projects under the programme "Jignasa".

The college is following Student-centric methods. Teachers have been able to effectively integrate ICT Tools such as PPTs, Digital Boards and open resource material available on the Internet in their teaching. Students have access to T SAT NIPUNA lessons, both live and recorded for more effective learning through ICT. A Continuous Evaluation System is followed as per academic calendar/almanac of the affiliating university.

#### VISSION AND MISSION STATEMENT

#### Vision:

- To be an institution which transforms students into responsible citizens through rigorous coursework, life and employability skills for a successful career by providing an understanding of the needs of society and industry.
- To nurture the moral values and ethics among the students with good character, wisdom and selfless service.
- To nurture core values namely social, cultural, economic, scientific temperament and environmental awareness with a special focus on community health and hygiene.
- To mould the students with good character, wisdom, selfless service and strive hard for national

#### integration.

• The institution endeavors to equip the students with various skills and to expose them to face various competitions and challenges. The future vision of the institution is to make the students intellectuals, self—sufficient, socially useful and productive citizens to promote national integration.

The future vision of the institution is to make the students intellectuals, self–sufficient, socially useful and productive citizens to promote national integration.

#### Mission:

The institution strives to focus all its efforts to realize its vision through the following mission statements:

- Our college provides students with quality educational experiences and support services, basic life skillsand technical efficiency that lead to the successful completion of degrees.
- By providing educational facilities to students belonging to all sections of the society those who desire pursue higher education.
- By inculcating discipline, punctuality and regularity.
- By adopting ICT based technical tools and best practices to reach the needs as per
- emerging trends. Meeting the needs of a diverse student population, we embrace equity and accountability throughmeasurable learning outcomes and achievements.
- Strengthening students' social responsibility by doing social activities with readiness, as responsiblesocial servants with special focus on health and hygiene

#### **COLLEGE PROFILE**

Name of the College: Government Degree College, Bellampally

Address: Near Yellamma Temple, Thalla Gurijala Road, Bellampally

Contact Info: Principal- Sri M. Gopal, Chairman- Green Audit Committee-

9440549760

Campus Area: 5 Acres

Built-up Area: 7000 Sq. ft.

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

The student and faculty strength of the college:

(As per the A.Y. 2020-2021)

| Strength                  | Male | Female | Total |
|---------------------------|------|--------|-------|
| No of students            | 307  | 263    | 570   |
| No of Teaching Staff      | 09   | 03     | 12    |
| No. of Non-Teaching staff | 03   | 01     | 4     |

# **Physical Structure:**

The available land of the college: **05** acres and **10** guntas.

The built-up area of the college: 7000 Sq.Ft.

| No. of Class Rooms      | 06  |
|-------------------------|-----|
| No. of Laboratories     | 02  |
| No. of Conference halls | NIL |
| Library Halls           | 01  |
| Auditorium              | NIL |
| Canteen                 | NIL |

**GREEN AUDITING** 

The college has adopted several measures to maintain green campus by organizing

several awareness programs to encourage the minimal use of plastic, releasing of

pamphlets explaining the hazardous effects of plastic usage, use of eco friendly

measures to cut down the chemical pollution like preparation and distribution of clay

idols of Lord Ganesh for the festival. The college has been putting its efforts to

inculcate ethics in respect to environmental protection. One of such activities is that

preparation of natural colors by using Moduga flowers for celebrating Holi festival etc.

The goal is to reduce pollution, proper maintenance of natural resources in the campus

by reducing their wastage and recycling them properly. The institution is striving hard

to provide good education in a healthy environment through educating its stakeholders

in respect to the environmental conservation in all regards thus playing it's role in the

maintenance of environmental sustainability.

Note: Questionnaires used for audit and Tabular forms prepared for analysis are

provided in annexure

LAND USE DETAILS

The college is located in pollution free campus spread over 5 acres of land

at the outskirts of Bellampally town, near Thalla Gurijala village. Bellampally is an

industrial area with Singareni coal mines.

An attempt has been made to give the details of campus land with the help of available

records in the college and the questionnaire provided. The location has been recorded

with GPS.

The photographs showing college building both administrative and teaching blocks with

the garden and open area is herewith provided.

**Physical Structure:** 

The available land of the college: 5 acres

The built up area of the college: 7000 sq.ft.

The built up area has an attached wing of Administrative portion and a double storied

teaching block.

**Findings:** 

Government Degree College which was established in the year 1987 has an eco-friendly

environment surrounded by greenery. The college has been maintaining green campus

with periodical plantation under Telangana Ku Haritha Haram Program and their

preservation and maintenance. Its land usage is such that 80% of its total area is

occupied by open land with natural vegetation for supporting bio diversity in the

campus area.



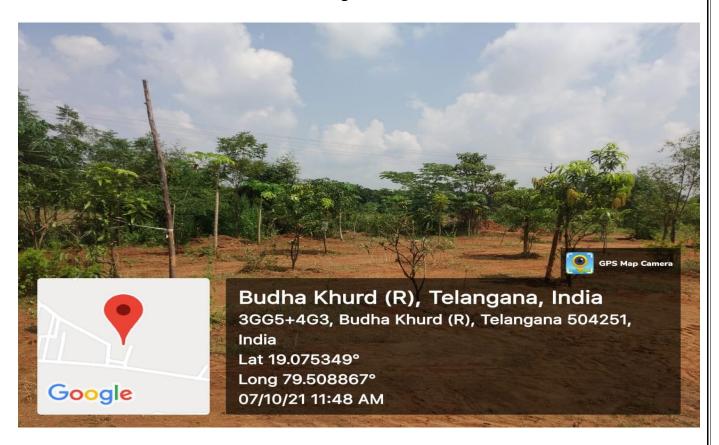
Gate way to the college



Way to the Garden



**Teaching Block** 



#### WATER MANAGEMENT REPORT

The college has two bore wells which fulfill the water needs and three over head tanks to preserve water. The college also has a separately dug pit for rain water harvesting as well as for waste water management. The college is providing safe drinking water to all the students and staff with the help of two R.O. plants.

Water quality testing is important because it is useful in testing the level of contamination of drinking water and the presence of pathogens of waterborne diseases. Drinking or using contaminated water can result in severe illness which may sometimes results in death. So it is essential to ensure that the drinking water is safe, clean and free from disease causing pathogens.

### **Drinking water indicators:**

- Alkalinity
- Color of water
- pH value
- Taste and odor
- Dissolved metals and salts
- Micro organism such as fecal coliform bacteria (Entamoeba histolytica, Giardia lamlia etc.)
- Dissolved solids
- Chlorides
- Zoo plankton
- Phytoplankton



# Rain water harvesting pit



R.O. Plant

# Water Analysis Report



# GOVERNMENT OF TELANGANA REGIONAL PUBLIC HEALTH LABORATORY, WARANGAL HANAMKONDA (KUDA Premises) - 506 001 Report Of Physical, Chemical Analysis Of Water & Chemical Analysis of Water for Construction Purpose\*

| Collected on 2.5.0.  | + DANGE | micipal<br>ree & offege. 13e<br>Distimandhim | Llam Pallie<br>Paid/Fr<br>Nal Receipt | ree :<br>No. : —                                 |   |
|--|---------|--|---------------------------------------|--|---|
| Received on 270  | -2074   |  | Amoun                                 |  |   |
| Lab Ref. No. :   |         | 2-1:16                                       | 700                                   | IS1050   | 0:2012  |
| Address Of Sources Substance or Characteristic   |         | College<br>Degrand<br>College<br>College     |                                       | Acceptable<br>limit                              | Permissible<br>limits in the<br>absence<br>of alternate<br>source |
| Colour   | 1       | 601-1520                                     |                                       | 5  | 15  |
| Odour  | 1       | None   |                                       | Agreeable  | Agreeable   |
| Purbidity NTU  |         | -  |                                       | 1  | .5  |
| r at °C  | 1       | 7.2-   |                                       | 6.5-8.5  | No relaxation   |
| Electrical conductivity<br>(st 25°C Micro Mhos/em)   | 11      | 660  |                                       |  |   |
| *Total Dissolved Solida<br>[ang/l.t.]  | (2)     | 4-29   |                                       | 500  | 2000  |
|  |         | The juliousing results are i                 | n mg/fiter                            | A Parameter                                      |   |
| Phenolphthalein Alkalinity   |         | porte  |                                       |  |   |
| Data Maria   |         |  |                                       | 200  |   |
| Total alkalinity<br>(as CaDD:)<br>Total hardness   | 1       | 304  |                                       | 200  | 600   |
| (as CaCO <sub>2</sub> )<br>Calcium hardness  | •       | 230  |                                       | 300  | 600   |
| as CaCO <sub>2</sub>  <br> Magneshim bardness  | 1:      | 200  |                                       |  |   |
| magnesium haroness<br>(as CaCO <sub>3</sub> )<br>Sulphote (os S()4 <sup>2</sup> )                  | 1       | 2.0  |                                       |  |   |
| 400000000000000000000000000000000000000  | :       | NIL  |                                       | 200  | 400   |
| Nitrite (as NOy)   | 18      | NIL  |                                       |  |   |
| Nitrate (as NO <sub>5</sub> †  |         | 202  |                                       | 10   | No relexation   |
| 'Chloride (as Cl. )  | 1       | lzy  |                                       | 250  | 1000  |
| (upride (as F.)  | ii ii   | 0.5  | 100                                   | 1.0  | 1.5   |
| ron (as Fe)  | 11      |  |                                       | 0.3  | No relaxation   |
| To neutralize 100 ml of water  |         |  |                                       | Not more than 5<br>456 (2000)<br>(Reaffirmed 200 |   |
| ample using phenolphthalein<br>dicator with 0.02 N Na OH<br>a mil<br>To neutralize 100 ml of water |         |  |                                       |  |   |

#### **ENERGY MANAGEMENT**

Energy auditing is the monitoring and analysis of the use of energy including submission of report containing recommendations for improving energy efficiency and an action plan to reduce energy consumption (The Energy Conservation Act, 2001). It is a study to determine how and where energy is used, and to identify methods for energy savings. It identifies all the energy streams in a system and quantifies the use of energy according to its discrete functions.

Methodology: It has been done by survey, Questennaire and physical visit

The main objective of any energy audit is determining ways to reduce energy consumption per unit of product output. The recommendations of the study will become a basis for future schemes of better energy consumption and preservation throughout the Institution. To determine what further Energy Savings can be achieved, on the most practical lines. Our thrust has been towards hidden losses and Technical upgradation.

The College consumes Electricity for routine administrative and teaching learning activities. It consumes 3,636.25 kW/hr electricity per month for various activities. The authority keeps a regular check to replace the old filamentous bulbs, CFL bulbs and tube lights by low energy consuming LED bulbs and tube lights in order to keep the electricity consumptions of the college as low as possible. In order to save the energy, the college educates the staff and students to switch off the electrical appliances where they are not necessary.



LED bulbs and tube lights in class room



LED bulbs In Principal Chamber

#### WASTE MANAGEMENT

Waste management includes the activities required to manage waste from its inception to its final disposal which includes collection, transport, treatment and disposal with monitoring and regulation.

The waste is separately collected as wet and dry wastes in separate bins and disposed separately. Dry waste includes paper, tins, cans etc. whereas wet waste includes organic wastes such as left-over food, dry leaves, vegetable wastes etc. The material was then separated as biodegradable and non bio degradable wastes and is dumped in to separate pits.

The biodegradable wastes are composted in a separate compost pit forming an organic fertilizer. The organic manure so formed is used for the college garden. By reusing and recycling the college is contributing to the conservation of natural resources. The college adopts eco friendly practices such as waste recycling. The biologically reusable compost is being prepared under the activities of eco- club and is used for plants that are there in the college garden.





Biodegradable & Non Biodegradable tits

#### GREEN CAMPUS MANAGEMENT

#### TREE DIVERSITY OF GOVERNMENT DEGREE COLLEGE, BELLAMPALLY

Government Degree College, Bellampally is situated within the geo-position between latitude 19.075482 and longitude 79.4985546 in Mancherial district of Telangana state. It occupies an area of about 5 acres. It has well diverse vegetation performing a variety of functions not only within the campus but also in surrounded area. The land encircles the college premises is suitable for fruit gardens and for commercial crops. Krishi Vigyan Kendra, a research station of Prof. Jayashanker Agricultural University, which is located about a half a kilometer distance, is an asset for this institution to provide an enriched resource for agricultural innovative studies. This center also puts forth its experimental new farming techniques in a variety of conventional and new varieties thus furnish the surroundings of the college campus with much more greenery. Periodically a number of plants were planted through Haritha Haram Programmes, an initiative of Telangana government which has become an integral part of the college.

The trees of the college enhanced the quality of all stake holders by providing oxygen, preserving soil, improving air quality supporting a variety of wild life. Many species of insects, birds and other animals are dependent on this vegetation. There is a variety of vegetation that includes trees and plants like flowering plants, fruit plants, shady trees, medicinal plants and many other categories exist in the college campus which has been playing a significant role in maintaining the eco friendly environment.

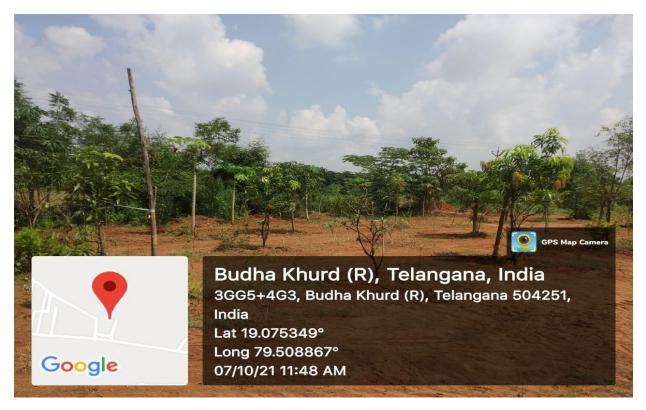
## **GREEN CAMPUS MANAGEMENT**





Medicinal plantation

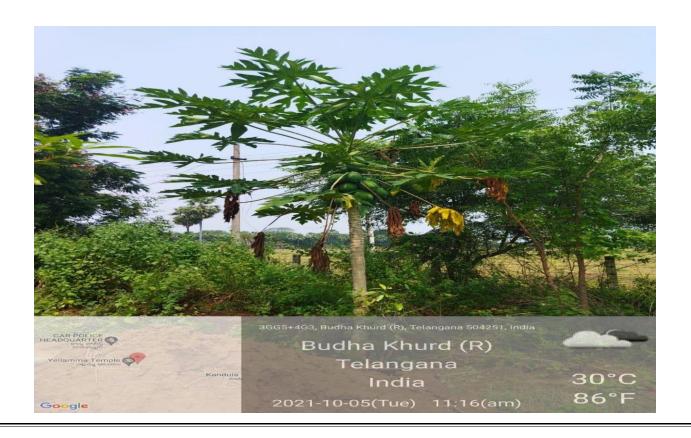
Fruit Garden





## Fruit Garden





# FLORAL DIVERSITY

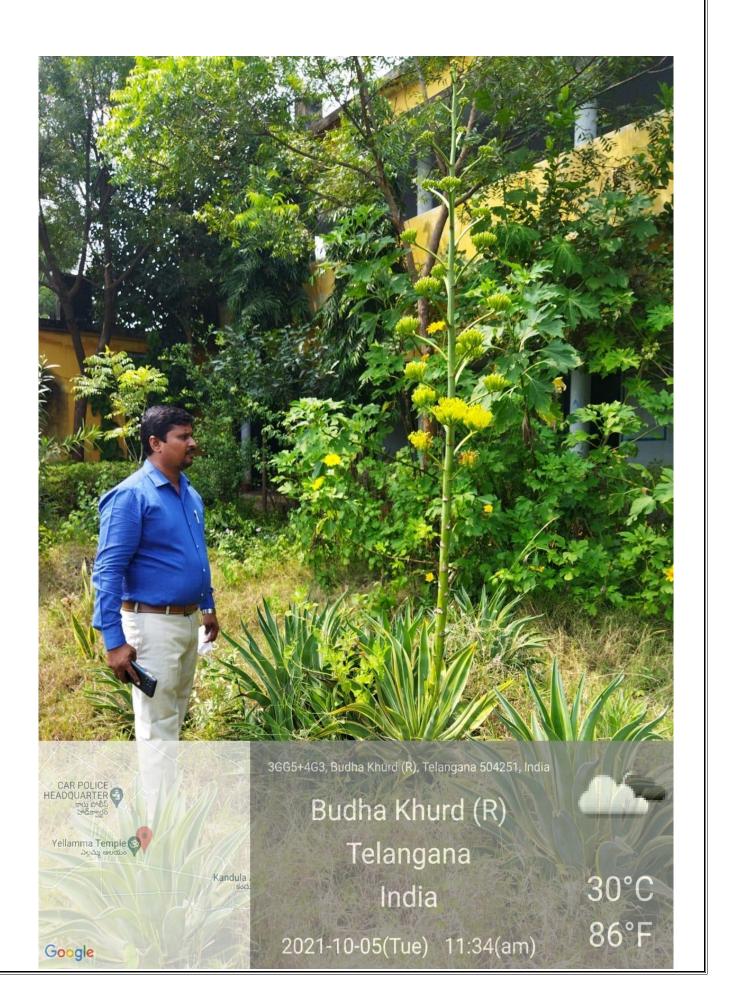
# LIST OF THE PLANTS IN THE GARDEN WITH APPROXIMATE NO.

| S.No. | Common Name               | <b>Botanical Name</b> | No.of Plants |
|-------|---------------------------|-----------------------|--------------|
| 1.    | Ganneru                   | Nerium oleander       | 12           |
| 2.    | Tella Maddi               | Terminalia arjuna     | 05           |
| 3.    | Gulmohar (Thurai)         | Delonix regia         | 16           |
| 4.    | Sapthaparni (Devil plant) | Alstonia scholaris    | 16           |
| 5.    | Neem                      | Azadiracta indica     | 05           |
| 6.    | Guava Plant               | Psidium guava         | 06           |
| 7.    | Lemon tree                | Citrus limon          | 03           |
| 8.    | Mango tree                | Mangifera indica      | 18           |
| 9.    | Ippa                      | Madhka indica         | 05           |
| 10.   | Ashoka tree               | Saraca indica         | 06           |
| 11.   | Black Jamun               | Syzygiium cumini      | 06           |
| 12.   | Papaya tree               | Carica papaya         | 06           |
| 13.   | Seethaphal tree           | Anona squamosa        | 06           |
| 14.   | Amla Tree                 | Phyllanthus emblica   | 02           |
| 15.   | Shoe flower plant         | Hibiscus rosasinensis | 03           |
| 16.   | Almond Plant              | Terminalia catappa    | 05           |
| 17.   | Bamboo Plant              | Dracaena sanderiana   | 02           |

# PICTURES OF FLORAL GARDEN







# **Croton Plants**





## **GREEN CAMPUS MANAGEMENT**









#### FAUNAL DIVERSITY OF GOVERNMENT DEGREE COLLEGE, BELLAMPALLY

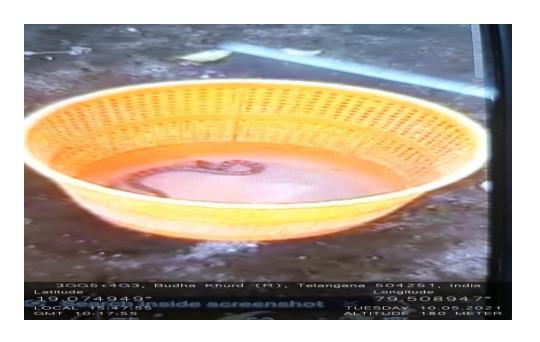
The college is located in Bellampally mandal, Mancherial district (Erstwhile Adilabad district) which is known for rich forest cover with Kawal Wild life sanctuary with tiger reserve that supports rich bio diversity. Bellampally is also known for coal mines. The climate is temperate and hot. The rain mainly records more from late July to September last week. The climate is suitable for rich flora and fauna.

# The faunal diversity observed and documented as follows:

| S. No. | Faunal Group             | <b>Common Name</b>  | Scientific Name              | Seasonality     |
|--------|--------------------------|---------------------|------------------------------|-----------------|
| 1      | Spiders                  | Common house spider | Parasteatoda<br>tepidariorum | All seasons     |
| 2      | Moths and<br>Butterflies | Monarch             | Danaus plexippus             | Spring          |
| 3      | Dragon Flies             | Common dragon fly   | Diplacodes trivialis         | Rainy season    |
| 5      | Wasps                    | Yellow wasp         | Ropalidia marginata          | All seasons     |
| 6      | Beetles                  |                     |                              |                 |
| 7      | Annelids                 | Eath worm           | Pheretima posthuma           | All seasons     |
| 8      | Other arthropod          | Cockroach           | Periplanata americana        | All seasons     |
| 9      | Amphibians               | Common frog         | Rana tigrina                 | Rainy<br>season |
| 10     | Snakes                   | Russesl viper       | Vipera russeli               | All seasons     |
| 11     | Birds                    | Common sparrow      | Passer domesticus            | All seasons     |
| 12     | Birds                    | Parrot              | Psittacula cameri            | All seasons     |
| 13     | Birds                    | Common Crow         | Carvus splendens             | All seasons     |
| 14     | Mammals                  | Cows                | Bos indicus                  | All seasons     |
| 15     | Mammals                  | Goats               | Capra aegagrus               | All seasons     |

# Snakes





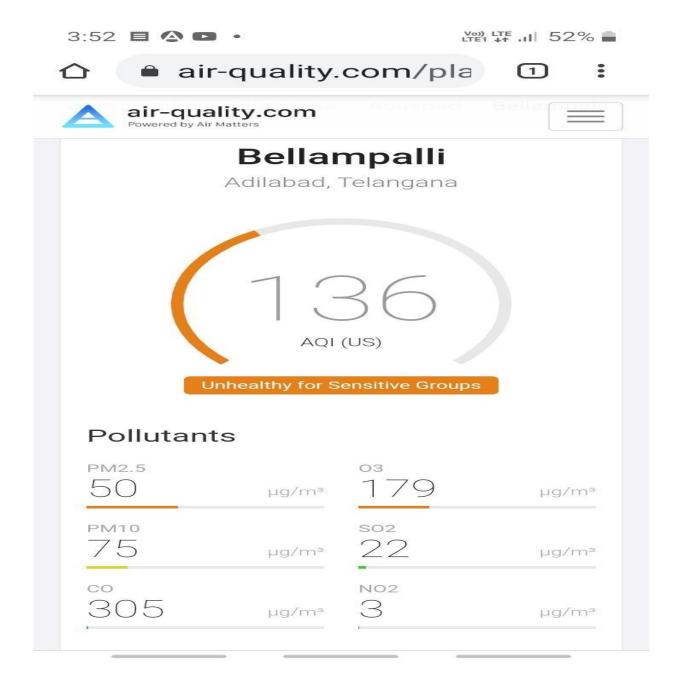






## **AIR QUALITIY INDEX**

Air quality is tested by using Air Quality.com App. and showing the results of air quality at Bellampally and it is predicted to be unhealthy for sensitive groups.



#### **CARBON FOOT PRINT**

- ➤ Petrol used by two wheelers/ day =16 L
- ➤ Fuel used by four wheelers= 15 L
- ➤ Fuel for persons travelling by common= 16 L
- ➤ Total fossil fuel use/day= 47 L
- Cost of stake holder transportation per month= 47 L @ 95/-= 4,465/-X 30 Days= 1, 33,950/-.

#### NOISE LEVEL INDEX IN AND AROUND THE CAMPUS

The college is located in a peaceful area which is exposed to low noise pollution. The human ear constantly receives various sounds of manmade and natural. Sound has two basic properties i.e. loudness and frequency. Loudness is the strength of sensation of sound perceived by the individual.

It is measured in terms of Decibels. Just audible sound is 10 dB, a whisper about 20 dB, normal conversation 35-60 dB, heavy street traffic 60-70 dB, jet planes during takeoff is about 150 db, rocket engine is about 180 dB. The loudest sound that a person can stand without much discomfort is about 80 dB. Sounds beyond 80 dB can be safely regarded as pollutant as it harms hearing system. The WHO has fixed 45 dB as the safe noise level for the city. Up to 65db can be tolerated. Loudness is also expressed in sones. One sone equals to the loudness of 40 db. Frequency is defined as number of vibrations per second. It is expressed in hertz (Hz).

#### **Materials and methods:**

Noise measuring app-Sound Meter was used to measure the noise level. It detects any noise, music and surrounding sound. It will provide maximum, minimum and average noise values.

# Picture showing noise levels recorded in library hall



# Table: Noise detected at various places in the college

| S. No. | Place          | Measurements | Minimum | Maximum | Average |
|--------|----------------|--------------|---------|---------|---------|
|        |                | (Duration in | (dBA)   | (dBA)   | (dBA)   |
|        |                | second)      |         |         |         |
| 1      | Library        | 19           | 29      | 44      | 36      |
| 2      | Canteen        |              |         |         |         |
| 3      | Play ground    | 54           | 33      | 78      | 47      |
| 4      | Auditorium     |              |         |         |         |
| 5      | Administrative | 24           | 30      | 55      | 38      |
|        | Block          |              |         |         |         |

#### ECO FRIENDLY ACTIVITIES CONDUCTED

#### **BEST PRACTICE 1**

- 1) Title of the practice: Preparation of clay idols of vinayaka and free distribution
- 2) **Objectives of the practice:-**vital role of nature and how pollution is effecting human lives by the increasing global warming. They came to know the beauty of nature and tried to protect the nature by this practice
- 3) **The context:**-clay idols made by the students were distributed to the local people, to make them aware of the effect of Plaster of Paris & coloured Ganesh idols and how they polluting aquatic resources and animals.
- 4) **The practice:**-students collected clay from the river bank and made beautiful mini sized Ganesh idols and distributed idols to the local people.
- 5) Evidence of success:-so many local people, who are aware of the importance of clay idols and its usage, accepted the very idea and encouraged the students with this appreciations.
- 6) **Problem encountered and Resources required:**-those who were attracted to the beauty of plaster of Paris idols did not accept & support the clay idols idea, and it's out implementation .There is the need of outstanding awareness program about protecting nature from pollution.

#### **BEST PRACTICE 2**

1) Title of the practice: Preparation of natural colours for Holi celebrations.

#### 2) Objectives of the practice:-

is played in the spring season the period inducts the growth of bacteria. The usage of natural colours in this Holi time reduces bacterial effects that increase great joy. The students spread this idea into the gloomy thoughts of uneducated people, by making natural colours with their own hands by using natural flowers.

#### 3) The context:-

Through this practice students leant how human health is effected by the unnatural and inorganic

products. They came to know the importance and advantages of natural colours while celebrating holi, andto make the life happy by filling with natural colours.

# 4) The practice:-

Students collected "modhugu flowers" from nearby the forest ,boiled the flowers in hot wateruntil the water becoming into saffron colour. After making it cool all flowers were removed and used that saffron colour liquid to play holi. They spread this idea each and everyone whom they knew .

#### 5) Evidence of success:-

So many were accepted this idea and practiced to use "modhugu flowers" in makingnatural colours to play holi.

## 6) Problem encountered and Resources required:-

Those who want different colours to make their friends suffer with sticky colours were not accepted touse this natural colour.





# ప్లాస్టిక్తతో అనర్థం

బెల్లం పల్లి, వెలుగు: పర్యావరణానికి హాని కలిగించే ప్లాస్టిక్వాడకాన్ని నిలిపేయాలని బెల్లంపల్లి డిగ్రీ కాలేజీ వైస్ ప్రిన్సిపాల్ శ్రీలత కోరారు. ఎన్ఎస్ఎస్ ఆధ్వర్యంలో కరపత్రా లను విడుదల చేశారు. లైబేరియన్రాధిక, ఎస్ఎస్ఎస్ ప్రోగ్రాం కో ఆర్డినేటర్ గజెల్లి మోహన్ పాల్గొన్నారు.

# ప్లాస్టిక్ ను నిషేధించాలి

బెల్లంపల్లి టౌన్: దైనందిన జీవితంలో ప్లాస్టిక్ వస్తువులను నిషేధించాలని ప్రభుత్వ డిగ్రీ కళా శాల వైస్ ట్రిన్ఫిపాల్ శ్రీలత అన్నారు. శుక్రవారం కళాశాలలో పాస్టిక్ ను నివారించాలనే కరప్యతా లను విడుదల చేశారు. ప్లాస్టిక్ సంచులకు బదులు జనపనార కాగితం, బట్ట సంచులను వినియోగిం చుకోవాలని సూచించారు. ఎన్ఎస్ఎస్ కోఆర్డినే టర్ గజెల్లి మోహన్, లెక్చరర్లు పాల్గొన్నారు.



<u>യൂട്ടാസ്</u> Sat, 28 September 2019 https://epaper.v6velugu.com

మంచిర్యాల

Sat, 28 September 2 https://epaper.ntne







పాశ్వర్ అవిష్టలన్నున్న ఉపాధ్యాయులు బెల్లంపల్లి: బెల్లంపల్లి డ్రభుత్వ డిగ్ర్ కళాశా లలో శుక్రవారం ప్లాస్టిక్ నివారణపై పోస్టర్ అవిష్కరించారు. కళాశాల ఆవరణలో ఏర్పా మమదల చేశారు.ఈ నందర్భంగా డ్రభుత్వ డిగ్ర్ కళాశాల పైస్ డ్రిన్సిఫాల్ శ్రీలత మా ల్లాడారు. పాలిథిన్ కవర్లు ఇతర మన్నువులు మివ్పల విడిగా వినియోగించడం వల్ల వర్యా వరణానికి తీడ్ర విఘాతం కలుగుతోందని తెలిపారు. వాతావరణ నమతుల్వత దెబ్బ వరణానికి తీడ్ర విఘాతం కలుగుతోందని తెలిపారు. వాతావరణ నమతుల్యత దెబ్బ తెలిపారు. వాతావరణ నమతుల్యత దెబ్బ తెలబోందని పేర్కొన్నారు. పాలిథన్ కవర్లు భూమితో ఏళ్ల తరబడి వరకు కరిగి పోవని , భూసారం దెబ్బ తింటుందని తెలిపారు. భూగార్ను జలాలు భూగార్భంలో ఇంకకుండా అడ్డువడుతున్నాయన్నారు. ద్రతి ఒక్కరు న్వప్పందంగా ఫాస్టిక్స్ మవియోగించకుం డా స్వయం నియంత్రణ పాటించాలని కో రారు. కాగితం, ఫ్లాస్టిక్ రహిత వన్మవులతో తయారు చేసిన కవర్లను వాడాలని నూచిం చారు. ఫ్లాస్టిక్ నిహ్మలనకు వర్యలు తీనుకోవాలన్నారు. కార్యక్రమంతో లైటేరి యన్ రాధిక, ఎన్ఎస్ఎస్ బ్రోగ్రాం అధికారి. మోమాన్, అధ్యావకులు శంకర్, రజిక, తిరువతి, డ్రవాకర్, మాడవకృష్ణ, మురళీ కృష్ణ , ఏకాంబరం, బోధనేతర నీబ్బంది, వి ద్యార్థులు ఫ్లాన్సారు.

# సహజ రంగులపై విద్యార్థులకు అవగాహన

బెల్లంపల్లిటౌన్, మార్చి 19: మ్రతి ఒక్కరూ హోళి రోజు చ్రకృతి నుంచి లభించే పూలతో కూడిన రంగులనే వాడాలని ప్రభుత్వ డిగ్రీ కళాశాల ప్రిస్పిపల్ గోపాల్ అన్నా రు. మంగళవారం పట్టణంలోని ప్రభుత్వ డిగ్రీ కళాశాలలో జాతీయ సేవా పథకం యూనిట్ ఆధ్వర్యంలో జరిగిన కార్యక్రమంలో విద్యార్తులు, ఉపాధ్యాయులు మోదుగు పూలతో రంగులను తయారు చేశారు. కృతిమ రంగులు వాడడం ద్వారా చర్మ సంబదమైన వ్యాధులు వస్తాయని సూచించారు. కార్యక్రమంలో అధ్యాపకులు గజెల్లి మోహ న్, లక్షీనరసింహం, రాధిక, శంకర్, చంద్రశేఖర్, తిరుపతి, రాజశేఖర్, ఏకాంబరం, మాదవకృష్ణ పాల్గొన్నారు.



రంగులు తయారు చేస్తున్న విద్యార్తులు



မေဝဠိၽႏွဴမ Wed, 20 March 2019 https://epaper.andhrajyothy.com/c/37755937





| S.<br>No. | Components for                                | Max.  | Marks   | Grade | Signature |  |
|-----------|---|-------|---------|-------|-----------|--|
|           | Assessment                                    | Marks | Awarded |       |           |  |
| 1         | Energy Audit                                  | 20    | . 18    | A     | Lecuy     |  |
| 2         | Waste Audit                                   | 15    | 13      | A     | Miller    |  |
| 3         | Water Audit                                   | 15    | 14      | A     | hy pr     |  |
| 4         | Land scape or<br>Environment audit            | 15    | 13      | A     | Olim      |  |
| 5         | Carbon Foot print and<br>Oxygen Emision Audit | 15    | 13      | A -   | All       |  |
| 6         | Green activities                              | 10    | 09      | A     | Quijo     |  |
| 7         | Student Clubs                                 | 10    | 09      | A     | confr     |  |

Grades:

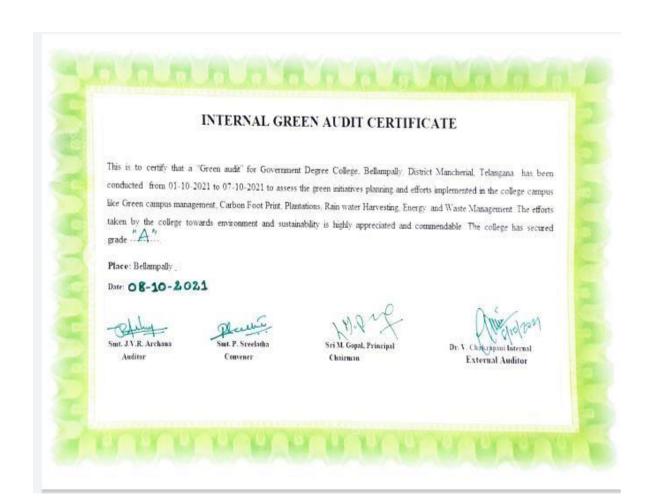
91-100: A+

81-90 : A

71-80 : B+

61-70: B

51-60 : C



# **ANNEXURE (Questionnaire & Tabular forms)**

#### AUDITING FOR WATER MANAGEMENT

1. List out uses of water in your college.

For drinking, gardening, sanitation and for laboratory requirements.

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

Bore well

3. How many wells are there in your college?

02 Bore wells

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

01

5. What is the total horse power of each motor?

1 HP

6. What is the depth of each well?

180 ft

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

90 ft

8. How does your college store water?

Overhead tanks

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

2000 Liters

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

500 Liters

11. If there is water wastage, specify why.

No

12. How can the wastage be prevented / stopped?

By regular checking of the pipes and taps and by making the students and staff aware of the importance of water

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

Yes, located

14. Where does waste water come from?

From Wash basins, Sinks and toilets

15. Where does the waste water go?

Waste water harvesting pit

What are the uses of waste water in your college?

It is used to improve the underground water level by sinking it into the pit

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

No

17. Is there any treatment for the lab water?

No

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

No

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

No

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

No equipment available

21. Bimonthly water charges paid to water connections if any

Nil

- 22. No. of water coolers. Amount of water used per day? (in liters)
  - 01, 10 liters per day only in summer
- 23. No. of water taps. Amount of water used per day?

| 9, 500 liters   |
|---|
| 24. No. of bath rooms in staff rooms, common, hostels. Amount of water used per day?  |
| 500 Liters  |
| 25. No. of toilet, urinals. Amount of water used per day?   |
| 5,500Liters   |
| 26. No. of water taps in the canteen. Amount of water used per day?   |
| Nil   |
| 27. Amount of water used per day for garden use.  |
| 500 Liters  |
| 28. No. of water taps in laboratories. Amount of water used per day in each lab?  |
| 2, 100 liters   |
| 29. Total use of water in each hostel?  |
| No hostels, nil usage of water  |
| 30. At the end of the period, compile a table to show how many liters of water have been used in the college for each purpose |
| 31. Is there any water used for agricultural purposes?  |
| No  |
| 32. Does your college harvest rain water?   |
| Yes   |
| 33. If yes, how many rain water harvesting units are there? (Approx. amount)  |
| One pit,1000 liters   |
| 34. How many of the taps are leaky? Amount of water lost per day?   |

Nil

35. Are there signs reminding people to turn off the water? Yes / No Yes 36. Is there any waterless toilets? No 37. How many water fountains are there? Nil 38. How many water fountains are leaky? Nil 39. Is drip irrigation used to water plants outside? No 40. How often is the garden watered? Alternate dayl 41. Quantity of water used to watering the ground? 50 liters 42. Quantity of water used for bus cleaning? (Liters per day) Nil 43. Amount of water for other uses? (Items not mentioned above) Nil 44. Area of the college land without tree/building canopy. 1 Acre 45. Is there any water management plan in the college? Yes 46. Are there any water saving techniques followed in your college? What are they? Rain water harvesting pit, waste water sinking pit, supply of water from rain water pit to plantation 47. Please share Some IDEA for how your college could save more water.

#### AUDITING FOR ENERGY MANAGEMENT

- 1. List ways that you use energy in your college.(Electricity, electric stove, kettle, microwave, LPG, firewood, Petrol, diesel and others).--Electricity.
- Electricity bill amount for the last year.
   Electricity bill amount for the last year Rs.41, 520=00.
- 3. Amount paid for LPG cylinders for last one year.-Nil
- 4. Weight of firewood used per month and amount of money spent? Also mention the amount spent for petrol/diesel/others for generators? No firewood is used in the College.
- 5. Are there any energy saving methods employed in your college? If yes, please specify. If no, Suggest Some?

Yes.

- 1. LED tubes, Bulbs and CFL Bulbs are used in the college.
- 2. Energy Efficient (Five Star Rating) Refrigerator is used in the college.
- 6. How much money does your college spend on energy such as electricity, gas, firewood, etc. In a month?
  - 1. One Month Current Bill Rs. 3,460/-
  - 2. One Month Gas Cylinder Bill Rs. 960/-
- 7. How many CFL bulbs has your college installed? Mention use (Hours used/day for how many days in a Month)?

No CFL Bulbs are used in the Campus.

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

No CFL Bulbs are used in the Campus.

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

LED Bulb = 07 (6 Hours/Day, 25 days)

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

One LED Bulb Energy per month = 1.35 kWh.

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

No Incandescent Bulbs are used in the College.

12. Energy use 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)

Total Number of Fans = 34 (6hrs/Day, 25 days)

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

Energy Used by each Fan = 9 kWh

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

Nil

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

Nil

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

Not Applicable

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

Nil

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

Total Computer = 38 (6 Hours/Day) for 25 Days

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

Each Computer uses 37.5 kWh

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

Total Photocopiers = 4 (1 hour/Day) for 25 Days

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

Cooling Apparatus = 01 (24 Hours/Day) for 30 Days

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

Energy used by each cooling Apparatus = 108 kWh

24. Energy used by each photocopier per month? (kWh) Mention the use (Hours used/day, for how many days in a month) How many inverters your college installed? Mention use (Hours used/day for how many days in month)

Energy used by each photocopier per month = 1.5 kWh

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

Energy used by each Inverter per month = 150 kWh

26. How many electrical equipment are used in different labs of your college? Mention the use (Hours used/day for how many days in a month)

Nil

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

Nil

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)

No heaters are used in the Canteen.

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

Nil

30. No of street lights in your college?

No. of street lights = 01

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

Energy used by each street light per month = 1.18 kWh

32. No of TV in your college and hostels?

No. of TV's in our college = 01

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

Energy used by TV/month is 22.5 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)

No

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.

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

Yes

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

Yes

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

Yes (2 to 4 hours)

- 39. What are the energy conservation methods adapted by your college?
  - 1. Switch off the light and fans, when they are not in use.
  - 2. LED lights and energy saving fans are installed.
  - 3. Five star rating refrigerators are used in the labs.
  - 4. All the electrical equipment's are unplugged when they are not in use.
  - 5. Limited usage of Computers and Printers is encouraged.
- 40. How many boards displayed for saving energy awareness?

SIX FLEXI'S are displayed for saving energy awareness.

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.

There are number of ways to reduce the energy usage in the college. Most important one is turn off the light and fans when they are not in use. Energy efficient bulbs and fans like LED should be installed in the college. Unplug all the electronic devices when they are not in use. For outside purpose solar lights are the best choice. If we have a greater number of Computer labs which required electric output, we should use power strip. Whenever the computers and printers are not in use, we can switch them all off at a time to prevent the huge energy loss. Conducting awareness programs in the campus to tell Energy conservation is energy creation.

(Calculation of energy for electrical appliances Appliance Power used in (watt) Usage per day (hours) Number of appliances Average kWh per day (Watt X hours X Number X 1000) Average kWh per month (Watt X hours X Number X 1000 x 30) Incandescent bulb 60 watt CFL 18 W Microwave 1000W Stove 3000W Kettle 2500W)

#### AUDITING FOR WASTE MANAGEMENT

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

No. of Students; 570, No. of Teachers; 12 No. Non-teaching staff; Gents -3 Ladies -1 Total: 586

Which of the following are available in your College?

Give area occupied, Garden area and Garbage dump (2)

Playground area (1), Laboratory (2), Kitchen (0), Canteen(0), Toilets (5) Car/scooter shed area0

Number of class rooms-(6), Office rooms- 2 and others Library-(1))

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

Municipal dump yard Nil

Garbage heap Nil

Public convenience Sewer line Nil

Stagnant water Nil

Open drainage Industry – (Mention the type) - Nil

Bus / Railway station Market / shopping complex / public halls - One Bus toppage

#### WASTE

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

How much quantity?

Number or weight E-waste Hazardous waste (toxic)

Solid waste -5 Kgs per day

Dry leaves - 20 Kgs per day

Canteen waste - Nil

Liquid waste -

Glass - Nil

Unused equipment- Nil

Medical waste if any- Nil

Napkins Others (Specify)- 2 kgs

Is there any waste treatment system in the college? Yes Wate water harvesting 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 5 Kgs
- 2. Why waste is a problem? Some non degradable wates create health hazards if not treated properly
- 3. Whether waste is polluting ground/surface water? How? Yes, It contaminates the drinking water which causes health hazards in human and other animals
- 4 .Whether waste is polluting the air of the college? How? No, No gaseous wastes produced only a meager quantity of gases from labs, very less
- 5. How is the waste generated in the college managed?

Methods 1 Composting 2 Recycling 3 Reusing 4 Others (specify) -Composting, Reusing

6 How many separate boxes do you think you would need to put into a classroom to start a waste segregation and recycling campaign? 4, Biodegradable, Non biodegradable, Reusable and recyclable

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

- 7. Do you use recycled paper in College? No recycling mechanism of paper exists
- 8. Is there any waste wealth program practiced in the college? No

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

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

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

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

By conducting rallies, organizing awareness programmes to reduce environmental pollution caused by wastes etc. Yes, we have undertaken a programme on awareness of damages caused by plastic usage by releasing pamphlets through our NSS students and distribution of them and preparation of Ganesh idols with clay an initiative of eco-friendly practices and preparation of natural colours, conducted rallies etc.etc.

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

Yes we can achieve by maintaining the wastes in suitable and safe methods

#### AUDITING FOR GREEN CAMPUS MANAGEMENT

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

Yes, 2000 sqft.

2. Do students spend time in the garden?

Yes.

Provided in the report

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

Trees like shady for ex. Neem, Ficus, Fruit plants like Banana, Sithaphal, Grapes, Guava, Flowering plant like rose, Jasmine, Shoe flower, medicinal plants and many other species because the soil is very good and fertile

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

Provided in the report

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

Yes, We have displayed.

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

Yes.

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

No.

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

Yes. 50 Sq. Yards.

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

No.

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

Bore Water is used and 700 Liters

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

Mr.Durgam Thirupathi Lecturer in Botany, Govt. Degree College, Bellampally, Dist.Mancherial.

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

Yes, Rain water

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

| S.No. | Name of the Pesticide/Fertilizer | Quantity |
|-------|----------------------------------|----------|
| 1.    | Urea                             | 5 Kg     |
| 2.    | DAP                              | 10 Kg    |

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

No

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

Yes, we have normal compost pit in our college. We are using the compost generated as natural fertilizer for our garden.

- 16. What do you doing with the vegetables harvested? Do you have any student market? No, we do not have any vegetable garden.
- 17. Is there any botanical garden in your campus? If yes give the details of campus flora.

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

| S.No | Name of the medicinal plants | Number of the plants |
|------|------------------------------|----------------------|
| 1    | Cinnamomum tamale            | 2                    |
| 2    | Amana masticate              | 2                    |
| 3    | Aloe Vera                    | 2                    |
| 4    | Piper bottle                 | 2                    |
| 5    | Cymbopogon citrates          | 2                    |
| 6    | trachyspersmum               | 2                    |
| 7    | Ocinum sanctum               | 2                    |
| 8    | Trachypersmum captrisum      | 2                    |
| 9    | Bryophyllum prination        | 2                    |

- 20. Any threatened plant species planted/conserved? Yes
- 21. Is there a nature club in your college? If yes what are their activities? Yes Eco club- plantation, organizing awareness programs to inculcate aesthetic sene and the spirit of environmental protection
- 22. Is there any arboretum in your college? If yes details of the trees planted. No
- 23. Is there any fruit yielding plants in your college? If yes details of the trees planted. Yes Guava, Citrus, Goose Berry, Custard apple, Neredu, Papaya etc.
- 24. Is there any groves in your college? If yes details of the trees planted. No
- 25. Is there any irrigation system in your college? No
- 26. What is the type of vegetation in the surrounding area of the college?

Fruit Garden, Cotton, Paddy and Millet crops

- 27. What are the nature awareness programmes conducted in the campus?
- 28. What is the involvement of students in the green cover maintenance? Maintenance of college garden by making them as teams for watering and gardening
- 29. What is the total area of the campus under tree cover? Or under tree canopy?
- 30. Share your IDEAS for further improvement of green cover.-

Making the available open ground cultivable, using of organic manure, involving all the stake holders in improving the green cover, taking the help of forest department, raising funds for its growth, planting more no. of trees etc

#### **AUDITING FOR CARBON FOOTPRINT**

1. What is the total strength of students and teachers in your College?

No. of Students=555

No. of Teachers=16

No. of Non-teaching staff Gents Ladies Total=05

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

Total Number of vehicles = 70

- 3. No. of cycles used = 20
- 4. No. of two wheelers used (average distance travelled and quantity of fuel and amount used per day)

No. of two wheelers = 44@20km/day

Average distance travelled = 880 km

Quantity of fuel used per day = 16 L

Amount used per day =  $16 L \times 95/-=1520/-$ 

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

No. of cars = 06@40km/day

Average distance travelled = 240 km

Quantity of fuel used per day =15 L

Amount used per day =  $15 L \times 95/-=1425/-$ 

6. No. of persons using common (public) transportation (average distance travelled and quantity of fuel and amount used per day)

No. of persons using common public transportation = 400 persons

Average distance travelled =  $400 \times 20 \text{ km} = 8000 \text{ km}$ 

Quantity of fuel used per day =533 L

Amount used per day =  $533 L \times 95/- = 50,635/-$ 

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.)

Number of parent-teacher meetings in a year = 01 (25)

9. Number of visitors with vehicles per day?

Number of visitors with vehicles per day = 50

10. Number of generators used per day (hours). Give the amount of fuel used per day.

Nil

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

Nil

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

Nil

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

Nil

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

Nil

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

Nil

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. Usage of Electrical Vehicles Instead of Fuel Vehicles.
- 2. Usage of Bicycles for Short Distance Travel.
- 3. In case of walkable distance areas prefer foot travel.
- 4. Use public transportation i.e. Local Buses, Autos etc.

Bues and autoes

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

Yes.

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

Good.

## **Carbon Footprint - Sample Report**

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

Total fossil fuel use is 517 L / day

Total fuel cost per day for transportation =Rs. 36190/- (517 L x Rs 70)

Cost of stakeholder transportation per month (Rs.36190x22 days)- Rs.796180

## Water chemical quality analysis provided in the report

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

| S.No | Parameter/ WHO permissible level | Zooplankton (No of Samples/Sites) | Methodology      |
|------|----------------------------------|-----------------------------------|------------------|
| 1    | Protozoan (Ciliates)             | Paramecium                        | Under microscope |
| 2    | Rotifers                         |                                   |                  |
| 3    | Ostracods                        |                                   |                  |
| 4    | Insect Larvae                    |                                   |                  |
| 5    | Water Fleas                      |                                   |                  |
| 6    | Bivalves                         |                                   |                  |
| 7    | Snails                           |                                   |                  |
| 8    | Mussels                          |                                   |                  |
| 9    | Any Other (Specify)              |                                   |                  |

Quality

Water analysis

# (Biological) report of college – II (with Photographic evidence):

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

| A)Composting/<br>Vermicomposting | Yes | Remark |
|----------------------------------|-----|--------|
| B)Recycling                      |     |        |
| C)Reusing                        | Yes |        |
| D)Other ways                     | Yes |        |

# How the waste generated in the college is managed?

# Waste generated in the college?

| E-waste          | Nil    |  |
|------------------|--------|--|
| Hazardous waste  | Nil    |  |
| Solid waste      | 5 kgs  |  |
| Dry leaves       | 50 kgs |  |
| Canteen waste    | Nil    |  |
| Liquid waste     | 100 L  |  |
| Glass            | NIL    |  |
| Unused           | Nil    |  |
| Equipment        |        |  |
| Napkins 5 kgs    |        |  |
| Others (specify) |        |  |

| Do you use recycled paper in college? | No      |
|---------------------------------------|---------|
| Any waste management methods used?    | Compost |

# PICTURE GALLERY













# GOVERNMENT DEGREE COLLEGE, BELLAMPALLY, DIST:MANCHERIAL.

# AUDITING FOR ENERGY MANAGEMENT

## LIST OF ELECTIRICAL APPLIANCES IN VARIOUS ROOMS

|      |                      |      | IOI OI I     |                  |           |               | TIT TOLD     | A1 1 1 1 A |                         | J ILO OIVIL  | ,                  |             |            |          |                               |            |
|------|----------------------|------|--------------|------------------|-----------|---------------|--------------|------------|-------------------------|--------------|--------------------|-------------|------------|----------|-------------------------------|------------|
| S.NO | ROOM NO.             | FANS | LED<br>BULBS | LED<br>TUBE<br>S | TUB<br>ES | COMP<br>UTERS | PRIN<br>TERS | UPS        | SMA<br>RT<br>BOA<br>RDS | SCANN<br>ERS | PRO<br>JECT<br>ORS | CCTV<br>DVR | FRID<br>GE | T<br>V   | WA<br>TER<br>PUR<br>IFIE<br>R | SPE<br>AKE |
| 1    | OFFICE ROOM          | 4    | -            | -                | 3         | 3             | 3            | -          | -                       | -            | -                  | 1           | 1          | -        | -                             | -          |
| 2    | PRINCIPAL<br>CHAMBER | 2 2  | -            | -                | 3 2       | 2             | 1            | 1          | -                       | 1            | -                  | <u>-</u>    | -          | _        | 1                             | -          |
| 3    | 1                    |      | -            | -                |           | -             | -            | -          | -                       | -            | -                  |             | -          | -        | -                             | -          |
|      | 2                    | 3    | 1            | -                | 2         | 1             | -            | -          | 1                       | -            | 1                  | 1           | -          | -        | -                             | -          |
|      | 3                    | 3    | -            | -                | 2         | -             | -            | -          | -                       | -            | -                  | 1           | -          | 1        | -                             | -          |
|      | 4 (COMPUTER LAB)     | 6    | -            | -                | 6         | 29            | -            | 1          | -                       | -            | 1                  | 1           | -          | <u> </u> | -                             | 2          |
|      | 5                    | 5    | 1            | 3                | -         | -             | -            | -          | -                       | -            | 1                  | -           | -          | -        | 1                             | 1          |
|      | 6                    | 3    | 3            | -                | -         | 1             | -            | -          | -                       | -            | 1                  | -           | -          | -        | -                             | -          |
|      | DR.BRAOU             | 1    | -            | -                | 1         | -             | -            | -          | -                       | -            | -                  | 1           | -          | -        | -                             | -          |
|      | 7                    | -    | -            | -                | -         | -             | -            | -          | -                       | -            | -                  | -           | -          | -        | -                             | -          |
| 11   | 8 (COMMERCE LAB)     | 4    | 2            | 4                | -         | 1             | -            | •          | -                       | -            | 1                  | -           | -          | -        | -                             | -          |
| 12   | 9                    | -    | -            | -                | -         | -             | -            | -          | -                       | -            | -                  | -           | -          | -        | -                             | -          |
| 13   | 10                   | -    | -            | -                | -         | -             | -            | -          | -                       | -            | -                  | -           | -          | -        | -                             | -          |
| 14   | CORRIDOR(1TO6)       | -    | -            | -                | 3         | -             | -            | -          | -                       | -            | -                  | 2           | -          | -        | -                             | -          |
|      | CORRIDOR(7 TO 10)    | -    | -            | -                | -         | -             | -            | -          | -                       | -            | -                  | 3           | -          | -        | -                             | -          |
|      | LIBRARY              | 1    | -            | -                | 1         | 1             | -            | -          | -                       | -            | -                  | -           | -          | -        | -                             | -          |
| 17   | OUT SIDE             | -    | -            | 1                | -         | -             | -            | -          | -                       | -            | -                  | 3           | -          | -        | -                             | -          |
|      | TOTAL                | 34   | 7            | 8                | 23        | 38            | 4            | 2          | 1                       | 1            | 5                  | 14          | 1          | 1        | 2                             | 3          |

# GOVERNMENT DEGREE COLLEGE, BELLAMPALLY, DIST:MANCHERIAL.

# AUDITING FOR ENERGY MANAGEMENT

## **USAGE OF POWER**

| S.No. | Eleftrical<br>Appliance/Instrument | Number | Power(W)<br>/Unit | Total<br>Power(W) | KW    | Operation/<br>day | kW/hr | No.of Days<br>in Month | Total Consumption<br>per Month |
|-------|------------------------------------|--------|-------------------|-------------------|-------|-------------------|-------|------------------------|--------------------------------|
| 1     | FANS                               | 34     | 60                | 2040              | 2.04  | 6                 | 12.24 | 25                     | 306                            |
| 2     | LED BULBS                          | 7      | 9                 | 63                | 0.063 | 6                 | 0.378 | 25                     | 9.45                           |
| 3     | LED TUBES                          | 8      | 20                | 160               | 0.16  | 6                 | 0.96  | 25                     | 24                             |
| 4     | TUBES                              | 23     | 40                | 920               | 0.92  | 6                 | 5.52  | 25                     | 138                            |
| 5     | COMPUTERS                          | 38     | 250               | 9500              | 9.5   | 6                 | 57    | 25                     | 1425                           |
| 6     | PRINTERS                           | 4      | 60                | 240               | 0.24  | 1                 | 0.24  | 25                     | 6                              |
| 7     | UPS                                | 2      | 1000              | 2000              | 2     | 24                | 48    | 25                     | 1200                           |
| 8     | SMART BOARDS                       | 1      | 150               | 150               | 0.15  | 6                 | 0.9   | 25                     | 22.5                           |
| 9     | SCANNERS                           | 1      | 50                | 50                | 0.05  | 2                 | 0.1   | 25                     | 2.5                            |
| 10    | PROJECTORS                         | 5      | 250               | 1250              | 1.25  | 6                 | 7.5   | 25                     | 187.5                          |
| 11    | CCTV DVR                           | 14     | 10                | 140               | 0.14  | 24                | 3.36  | 30                     | 100.8                          |
| 12    | FRIDGE                             | 1      | 150               | 150               | 0.15  | 24                | 3.6   | 30                     | 108                            |
| 13    | TV                                 | 1      | 150               | 150               | 0.15  | 6                 | 0.9   | 25                     | 22.5                           |
| 14    | WATER PURIFIER                     | 2      | 150               | 300               | 0.3   | 12                | 3.6   | 25                     | 90                             |
| 15    | SPEAKERS                           | 3      | 60                | 180               | 0.18  | 6                 | 1.08  | 25                     | 27                             |

TOTAL CONSUMPTION PER MONTH 3,669.25 kW/hr