

Duvvuru Ramanamma Womens College, GUDUR, Nellore Dt.

Green Audit including Energy and Environment

Green Audit is assigned to the criteria 7 of NAAC. The “Green Audit” aims to analyze environmental practices with in and outside the college campus, which will have an impact on the eco friendly ambience. The green audit will help to improve the condition of environment. As per the directions of the NAAC the college has initiated the green audit during 2017-2018 to promote environment protection and sustainability.

The purpose of the Audit is to ensure that the practices followed in the campus are in accordance with the environment policy adopted by the institution.

The objectives of the Audit is

- To promote the environment management and conservation in the campus
- To create awareness on environment protection and sustainability
- To motivate the students to protect environment through various methods and activities.
- To assess the measures implemented by the college to reduce the carbon foot print in the atmosphere.
- To assess the waste management of the college

The following is the methodology adopted by the college with regard to the audit

- Onsite visit
- Eco club activities
- Water conservation
- Tree plantation
- Waste management
- Alternative energy

The outcome of the audit will establish the evidence that the measures undertaken and facilities in the institution under green auditing reduces carbon foot print in the atmosphere.

Realizing the importance of audit the management appointed Dr. M. Bhavani, Associate Professor of Zoology and Mrs. P. Gayathri, Asst. Professor of Biotechnology to study the green practices in the College. After doing survey on green practices of the institution the committee submitted the following report.

Introduction- About the college:

Sri A. Sysamasundara Reddy, Founder President of the College Committee identified the need to have an exclusive college for women in Gudur Town. In response to the proposal, the Secretary and Correspondent Dr. C.R. Reddy along with dedicated team of his friends established this institution during 1981.

From the inception, the college has been maintaining a continuous development in infrastructure, introducing new programmes and courses, appointing faculty and the student admission. The college is the first autonomous college in the entire university area of three districts in A.P. The UGC bestowed CPE status twice to this institution. The college has undergone three cycles of accreditation by NAAC and in the third cycle the grade was "A" with 3.31 CGPA.

- The main **Thrust** of the college is empowerment of women
- The **Philosophy** of the Institution is to educate women students about their rights and equal opportunities in all respects of life and raise their level of aspirations and achievements.
- The **Motto** of the college is "Let Noble thoughts come to us from every side". Keeping this in mind the college always welcomes the innovative suggestions offered by the intellectuals.
- The **Vision** is to promote and encourage noble motives and objective thinking and educating women about their role in the contribution of economic and social development.
- The **Mission** of the institution is
 - To encourage first generation learners and those from marginalized groups to ensure Gender equality
 - To offer innovative quality education in emerging fields with flexibility in curriculum and teaching learning process
 - To build up a learner friendly, eco friendly academic environment
- To promote personality development and to inculcate habits of self reliance.
- To empower women by imparting value education

The college is situated in the heart of the Gudur town a semi urban area and has 6 acres of land in which college and hostel buildings and play ground is established.

The College has two NSS Units with 200 students sanctioned by the university. The Two Units are doing tremendous work through various society outreach programme. The units adopt villages and conduct NSS Camps every year to conduct various activities such as awareness campaign on sanitation, tree plantation, medical camps, pollution control and environment protection.

Observation and recommendations of the committee :

The committee went around the campus and noted the following things.

Observations:

I. Land uses pattern.

1. Campus total area – 6 acres
2. Building Area
 - (a) 8 three storied college buildings with 87347 Sft..
 - (b) Two four storied and two three Storied hostel buildings with 59172 Sft.
3. Play area of 1.5 acres

The college buildings consists 36 class rooms, 3 virtual class rooms, 2 smart class rooms, 1 Digital class room , 20 laboratories, Two Indoor multi purpose halls and two outdoor auditoriums. At present three stair cases are available.

Recommendations : The committee recommend to construct a ramp to connect to all the college buildings.

Energy Usage and Conservations.

Observations:

Annual Electricity consumption 326.13 KWH. Annual Power requirement meet through renewable energy sources 127.75 KWH.

Percentage of annual lighting power requirements. 3.85 Kwtt.

Percentage of power met through LED Bulbs.

Sources of Energy to the institution. Electricity, diesel, firewood.

Diesel is used for vehicles and for generators. Very less fire wood is used for generating steam to supply to the boilers in the hostel kitchen for steam cooking.

Recommendations:

The main energy source utilized by the campus is electricity only. Hence it is recommended to support renewable and carbon-neutral electricity.

- Installation of LED Lamps instead of CFL and replacing the old tube lights with new LED Bulbs.
- Steps should be taken to shut down electricity to main college buildings after college hours to save energy.
- Servicing the Air Conditioners and other electrical appliances from time to time and cleaning should be done periodically.

II. Eco Club Activities:

Observations :

It is observed that the institution is organizing many activities through Eco club for green practices.

- Seminars and Workshops are organized on environmental protection by involving NGOs, Govt. Officials and social organizations.
- Quiz, Debates and Orientation Programmes are conducted to students to create awareness on protecting the environment.
- Rallies are conducted on Go Green practices.

Recommendations:

The committee appreciate the college for conducting number of activities to motivate the students for environment sustainability. It is recommended to give extra two credits to the students who participate actively in environment protection campaign and activities.

III. Water Conservation:

Observations :

The Committee observed that the main source of water to the institution is from Municipal supply and from bore wells. The college constructed two big underground sumps to store the water. The college has taken necessary steps to protect and preserve the water resources. The waste water from RO system is utilized for toilets and

gardening purpose. It is observed that six sock pits are available in the campus and rain water harvesting system is functional.

Recommendations:

More awareness on water conservation is to be created among staff and students. Hostel inmates are to be monitored to minimize the usage of water.

IV. Tree Plantation:

Observations:

The college is situated in a drought area surrounded by Mica Mines. Hence there is acute water problem in the area due to this problem plantation is a big hazard to the institution. The college is taking care to maintain the trees and plants in the campus. As the college is situated in the mid of the town, area of the campus is limited. The management planned to construct buildings in a planned manner leaving space for the playground in the middle. Hence the college planted big trees on the edges of the buildings and around the compound wall. It is observed that plantation drives are organized by the college, to create clean and green environment. The college through NSS Units creating awareness among the surrounding villages on green practices and plantation. With the help of Municipality and R & B the college is organizing plantation programmes to create eco friendly environment.

Recommendations:

- Kitchen garden in the hostel premises may be developed
- List out the trees planted in the campus allot numbers and names to the trees.
- Environment protection committee may be established in the college
- Green Audit may be conducted periodically
- Environment Protection Day may be celebrated to create awareness among the students.

V. Waste Management:

Observations:

Waste Management is one of the main concern of the institution. The college implements various methods to maintain different types of waste generated in the campus by reuse, recycle and dispose. The vegetable waste and food waste from hostel and

canteen are collected separately and disposed to pig farms. Paper waste is minimized by following e-governance. College has tie up Aditya enterprises, Chennai for exchange of waste paper for fresh paper. Awareness in plastic reduction is arranged to make the plastic free campus. The liquid waste is maintained properly. Whenever the IT facility is upgraded the e-waste is bifurcated for reuse and dispose.

Recommendations:

The college has taken all necessary steps for waste management. Still there is necessity to take more steps to manage the waste in the campus. Awareness programmes on waste management has to be enhanced. Students are to be motivated not to waste the food. Vermi composting activity has to be increased.

VI. Alternative Energy

Observations:

The college has taken necessary action in creating alternative energy resources in the campus by providing solar panels. The solar energy generated approximately is ----- kwh. The college started to replace LED Bulbs and lamps in the place of CFL lamps and bulbs. Computers are set to automatic power saving mode when they are not in use.

Recommendations:

- More LED Bulbs and lamps may be replaced in the place of CFL Bulbs.
- The renewable energy generated may be connected to grid.

Conclusion:

The committee is happy to note that the college has taken all necessary steps to maintain the campus environment pollution free. However a few recommendations were made to reduce carbon neutrality and to maintain eco friendly green campus. The illumination and ventilation of all buildings, class rooms are adequate. The committee extends thanks to the NSS Units for their co-operation in conducting the green audit in the campus.



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