



## **BELLARY V.V.SANGHA'S**

# **VIJAYANAGARA COLLEGE**

## HOSAPETE

## GREEN AUDIT REPORT FOR THE ACADEMIC YEAR 2022-23



## Introduction:

The green audit aims to analyze environmental practices within and outside the college campuses, which will have an impact on the eco-friendly atmosphere. Green audit can be defined as systematic identification, quantification, recording, reporting and analysis of components of college environment. It was initiated with the motive of inspecting the effort within the institutions whose exercises can cause threat to the health of inhabitants and the environment. Through the green audit, a direction as how to improve the structure of environment and there are include several factors that have determined the growth of carried out the green audit.

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#### Need for Green Audit:

Green auditing is the process of identifying and determining whether institutions practices are eco-friendly and sustainable. Traditionally, we are good and efficient users of natural resources. But over the period of time excess use of resources like energy, water, are become habitual for everyone especially, in common areas. Now, it is necessary to check whether our processes are consuming more than required resources? Whether we are handling resources carefully? Green audit regulates all such practices and gives an efficient way of natural resource utilization. In the era of climate change and resource depletion it is necessary to verify the processes and convert it in to green and clean one. Green audit provides an approach for it. It also increases overall consciousness among the people working in institution towards an environment.

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## **Goals of Green Audit:**

College has conducted a green audit with specific goals as:

- 1. Identification and documentation of green practices followed by college.
- 2. Identify strength and weakness in green practices.
- 3. Analyze and suggest solution for problems identified.
- 4. Assess facility of different types of waste management.
- 5. Increase environmental awareness throughout campus.
- 6. Identify and assess environmental risk.
- 7. Motivates staff for optimized sustainable use of available resources.
- 8. The long-term goal of the environmental audit program is to collect baseline data of environmental parameters and resolve environmental issue before they become problem.

## **Objectives of Green Audit:**

- 1. To examine the current practices, which can impact on environment such as of resource utilization, waste management etc.
- 2. To identify and analyze significant environmental issues.
- 3. Setup goal, vision, and mission for Green practices in campus.
- 4. Establish and implement Environment Management in various departments.
- 5. Continuous assessment for betterment in performance in green.



## **Benefits of Green Audit to Educational Institutions:**

There are many advantages of green audit to an Educational Institute:

- 1. It would help to protect the environment in and around the campus.
- 2. Recognize the cost saving methods through waste minimization and energy conservation.
- 3. Empower the organization to frame a better environmental performance.
- 4. It portrays good image of institution through its clean and green campus.
- 5. Finally, it will help to built positive impression for through green initiatives the upcoming NAAC visit.



## **Objective and Scope:**

The broad aims/benefits of the eco-auditing system would be

- Environmental education through systematic environmental management approach
- Improving environmental standards
- Benchmarking for environmental protection initiatives
- Sustainable use of natural resource in the campus.
- Financial savings through a reduction in resource use
- Curriculum enrichment through practical experience
- Development of ownership, personal and social responsibility for the College campus and its environment
- Enhancement of College profile
- Developing an environmental ethic and value systems in young people

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#### **Executive Summary:**

An environmental audit is a snapshot in time, in which one assesses campusperformance in complying with applicable environmental laws and regulations. Though a helpful benchmark, the audit almost immediately becomes outdated unless there is some mechanism in place to continue the effort of monitoring environmental compliance. This audit report contains observations and recommendations for improvement of environmental consciousness.

#### **AUDITING FOR WATER MANAGEMENT**

Water sources of the college are bore well and the water supplied municipality. Municipality water is stored in a sump. The analysis of this water will be carried out to confirm that water is suitable for drinking and general usage. For daily consumption, water is stored in the overhead tanks. An RO plant is installed for drinking water.

Sl No	Particulars	Capacity
1	Bore Well	250 feet depth
2	Sump	10000 liters
3	Overhead Tank	10000 liters
4	Rain water for distilled water tanks	500*2=1000 liters
5	R O Filter Tank	500 liters
6	Water usage per day	10000 liters

#### WATER STORAGE CAPACITY

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Bellary V.V. Sangha's
VIJAYANAGAR COLLEGE

Accredited "B++" Grade by NAAC (Affiliated to Vijayanagar Sri Krishnadevaraya University, Bellary) HOSAPETE - 583 201. (Vijayanagara Dist.)

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### WATER ANALYSIS

Sl No	Parameters	Bore well Water	R O Water	Municipality Water
1	TDS	480 ppm	155 ppm	102 ppm
2	Ph	13.8	7.2	7.1
3	Conductivity	0.531	0.73	0.196
4	Residual Sodium Carbonate	1.25	1.2	1.25
5	Sodium Absorption Ratio	10	13	13

#### SOIL ANALYSIS

Sl No	Particulars	Test values	Rating
1	рН	6.80	Slightly acidic
2	EC	0.20 dS/m	Normal
3	Organic Carbon	0.98%	High
4	Available Nitrogen	565.00 kg/ha	High
5	Available Phosphorus	54.23 kg/ha	Medium
6	Available Potassium	245.00 kg/ha	Medium
7	Available Sulphur	10.40 ppm	Sufficient
8	Available Zinc	0.56 ppm	Deficient
9	Available Boron	0.57 ppm	Sufficient
10	Available Iron	4.70 ppm	Sufficient
11	Available Manganese	2.10 ppm	Sufficient
12	Available Copper	0.21 ppm	Sufficient

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#### Waste water management:

- Rain water from the roof top is collected in the sump and this water is utilised for laboratories and watering the plants.
- > The waste water from R O plant is used for plants and excess water is drained out.
- Waste water from washrooms and laboratories are directed to the soak pit throughproper drainage system.
- > Water recycling system is not yet adopted in the college.

#### AUDITING FOR WASTE MANAGEMENT

To manage solid waste, separate dustbins for degradable and nondegradable waste are installed at different places in the campus. Non degradable waste is collected by the municipality vehicle. The degradable waste along with other plant waste will be disposed in the compost pit.

The manure obtained from the compost pit is used as fertiliser.

*E-waste will be sold to scrap buyers with the permission of Principal and college governing body. The campus is a plastic free zone due to the constant awareness created by the faculty among the students regarding the harmful effects of dumping plastic in the environment. Chemical wastes from the laboratories are neutralised with water* 

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## **ACKNOWLEDGEMENT**

## **Composition of Green Audit Team**

Sl.No	Name of the Staff	Designation
1.	Dr.Prabhaiah V.S. Principal	Chairman
2.	Sri.K.Ajith Narayana Rao, Asst. Professor	Co-ordinator
3.	Dr. Premalatha, Asso. Professor	Member
4.	Sri Vijay S Gulalakayi, Asst. Professor	Member
5.	Sri.Mahantesh Aradyamatha, Asst. Professor	Member
6.	Dr.Pushpa Kavatagi, Asst.Professor	Member

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### **Main Infrastructure:**

## **Details of Trees and Plants in the Campus**

Sl.No.	Common Name	Botanical Name
1	Neem Tree	Azadirachta indica
2	Banyan Tree	Ficus benghalensis
3	Indian Beech Tree	Pongamia Pinnata
4	Jamben Tree	Syzygium cumini
5	Peepal Tree	Ficus Religiosa
6	Chinese Date	Ziriphus Zizuba
7	Wild Tamarind	Leucaena
8	Рарауа	Carica papaya
9	Coconut	Cocos nucifera
10	Henna	Lawsonia inermis

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#### Solid Waste Management:

As part of the green initiative in the campus, our college Green Protocol Committee always tries to reduce the waste through reuse, and reduce which ensures the cleanliness and eco-balance in the campus. The major solid waste materials generated in the college campus and canteen includes food waste, plastic and papers. These wastes materials are collected by placing waste bins at various locations in the college campus and canteen. The bio-degradable and non-bio- degradable wastes are collected are segregated in separate labelled waste bins which, kept at different corners of the college. We have MOU with City Muncipality,Hosapete for Construction and solid waste management. The Municipal van is visiting to our college to collect biodegradable and non-biodegradable solid waste every day. The college organized various programmes such as plastic free campus campaign, recycling plastic campaign and awareness lectures on world environment day, to sensitize students for sustainable living practices.

#### Liquid Waste:

The major liquid waste includes effluents from toilets and the laboratories. The toilet waste water is connected by the municipal to drainage system. The college following Good Laboratory Practices to ensure the safety of the personnel and adheres to a strict protocol of liquid waste disposal in its laboratories. Un- methodological use of chemicals is demoralized during practical classes and laboratory liquid chemical wastes are safely disposed-

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off. Any glassware used in the laboratory is rinsed with minimum water and placed in the liquid waste container. The liquid waste is separated into organic and inorganic waste. Inorganic wastes such as concentrated acidic or alkaline solutions are neutralized

before disposal. Sodium bicarbonate or Calcium oxide (lime) is used for the neutralization process so that the neutralized liquid contains no harmful substance. The organic waste yield of the college is limited till date and therefore treated with cow dung for decomposition due to the action of micro-organisms.

#### **E-Waste Management:**

E-waste can cause damage to human health as also the environment. Electronic goods are used at its optimum level by proper upgradation and maintenance which is done by the suppliers themselves. All non-working electronic devices (e-waste), like ICT equipments, Computers, monitors and printers and other physics, chemistry and computer laboratory electronic equipments which can be stored in safe place in the college and later on, it is handed over to the local authorities for legal disposition.



## **Energy Management:**

The college is getting electricity energy from GESCOM, Hosapete. Thecollege also maintains UPS of 5 KV and 10 KV for administrative purpose.

## **Summary:**

Green Audit is one of the important tools to check the balance of natural resources and its judicial use. Green auditing is the process of identifying and determining whether institutional practices are eco-friendly and sustainable. It is a process of regular identification, quantification, documenting, reporting and monitoring of environmentally important components in a specified area.

Vijayanagar College, Hosapete has conducted a "Green Audit" in the academic year 2020-21. The main objective to carry out green audit is to check the green practices followed by Vijayanagar College, Hosapete and to conduct a well-defined audit report to understand whether the Vijayanagar College, Hosapete is on the track of sustainable development.



## **Conclusion:**

From the green audit following are the conclusions, which can be taken for improvement in the campus.

- 1) All departments generate paper waste. Especially, academic building is using more one paper for printing and writing is good practices.
- 2) E-waste are segregated, handled and disposed properly in an ecofriendly manner.
- Reducing the use of one-time use plastic bottles, cups, folders, pens, bouquets, decorative items will be useful to solve the problem of plastic pollution to some extent.
- 4) Wear Mask Signages are provided in the facility.
- 5) Rainwater is collected from rooftop to recharge the ground water level table.



## **Recommendations:**

Following are some of the key recommendations for improving campus environment:

- An environmental policy document has to be prepared with all the recommendations and current practice carried by Vijayanagar College, Hosapete
- A frequent visit should be conducted to ensure that the generated waste is measured, monitored and recorded regularly and information should be made available to administration.
- 3) The solid waste should be reused or recycled at maximum possible places.
- 4) Install a water meter to record water usage in the Vijayanagar College, Hosapete premises.