

GREEN AUDIT REPORT 2021-22

Shailabala Women's Autonomous College, Cuttack



CONDUCTED BY

1. Dr. Sohan Giri
2. Dr. Ranindra Kumar Nayak
3. Smt. Ratna Prava Prusti *Ratna Prabha Prusti*
4. Dr. Prasanta Kumar Samantray *Prasanta Kumar Samantray*
5. Smt. Saraswati Majhi *Saraswati Majhi*
6. Smt. Somani Jethi *Somani Jethi*



Anson
11.3.22
Principal
S.B. Women's (Auto) College
Cuttack

ACKNOWLEDGEMENT

Green Audit Assessment Team thanks to the Principal, Shailabala Women's Autonomous, College for assigning the task of Green Audit of this college to us. We appreciate the cooperation that we got from all the faculties and students during the entire process. Our special thanks are due to the Principal Prof. Dr. Gayatri Biswal for her warm support and encouragement. From the very beginning till the end of the process.

Ratna Prabha Prusty

Ratnaprava Prusty
Co-Ordinator, Green Audit Team
Shailabala Women's Autonomous, College

CHAPTER I

1.1 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.

GOALS OF GREEN AUDIT

- The objective of carrying out Green Audit is securing the environment and cut down the threats posed to human health.
- To make sure that rules and regulations are taken care off.
- To avoid the interruptions in environment that are more difficult to handle and their correction requires highcost
- To suggest the best protocols for adding to sustainable development

1.2 BENEFITS OF GREEN AUDIT

- Would help to prepare plan to project the environment.
- Recognize the cost saving methods through waste minimization and management.
- Point out the prevailing and fourth coming impacts on environment.
- Ensures conformity with the applicable laws.
- Empower the organizations to frame a better environmental performance.
- It portrays a good image of an institution which helps building better relationships with the group of interested parties. Promotes the alertness for environmental guidelines and duties.

CHAPTER II

METHODOLOGY & OVERVIEW OF GREEN AUDIT

ONSITE VISIT AND OBSERVATIONS

1. Clean Campus Initiatives :

- College observes no vehicle day on every Monday.
- Cleaning the campus regularly by sweepers.
- Special initiative is taken by NSS and Prakruti Mitra Club for Pollution free campus.
- Plastic is restricted within the campus premises

2. Landscaping Initiatives :

- Grass carpets in Science block botanical garden.
- Maintenance of Botanical Garden by Department of Botany.
- Levelling of botanical garden campus.
- Plantation within the campus.

3. Clean Air Initiatives :

- Observation of No Vehicle Day is mandatory for all staff and students.
- Ample open space is available.
- Cool air available from Mahanadi river from north west direction.
- Giving space to various Flora within the campus.
- Naming of Flora and its utility that are present in the campus (ANNEXURE-1)

4. Water Conservation through water reservoir:

- Rain water is stored in large pond which also gives space to various aquatic lives and the water is used for gardening purposes.

5. Waste Management processes :

• Solid Waste Management

There are numbers of pit in hostel area for composting of bio-waste and to manage the solid waste.

• Liquid Waste Management

Well designed drainage system in the campus which connects to municipality sewage system.

6. Awareness Initiatives :

- Awareness programmes are carried out regularly by NSS and Prakruti Mitra.
- Seminars, workshops and conferences are held to aware staffs and students about the environment pollutions and there consequences.

CHAPTER III

CONCLUSION AND MANAGEMENT PLAN

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. Shailabala women's Autonomous, College has conducted a "Green Audit" in the academic year 2021-2022. The main objective to carry out green audit is to check the green practices followed by Shailabala women's Autonomous college and to conduct a well-defined audit report to understand whether the college is in the track of sustainable development.

RECOMMENDATIONS

From the green audit following are the conclusions:

1. There are various Flora in the campus which have medicinal value, fruit bearing and aesthetic value which can be explored for research purposes and also a nutritional garden can be developed.
2. Food waste generated in campus mostly from college hostel is collected from dining areas. The food waste is dispersed properly to the municipal cans. Minimum food wastage should be encouraged. Separate drum or cans can be installed for categorizing the waste into dry and wet waste.
3. E- waste should be segregated, handled and disposed properly in an eco-friendly manner.
4. More number of incinerators should be installed in hostels and toilet areas.
5. The pond should be cleaned periodically to make it free from algal blooms.

ANNEXURE-1: Naming of Plants

FLORA OF COLLEGE CAMPUS (Arts & Science Block)

Sl.no	Name of Plants	Family	Common names	Utility
1	<i>Mussaendaerythrophylla</i>	Rubiaceae	Tropical dogwood	Ornamental
2	<i>Bougainvillea glabra</i>	Nyctaginaceae	Kagazfula	Ornamental
3	<i>Polyalthialongifolia or Cedrus deodara</i>	Pinaceae	Debadaru	Ornamental
4	<i>Coccothrinaxspirituana</i>	Arecaceae	palm	Ornamental

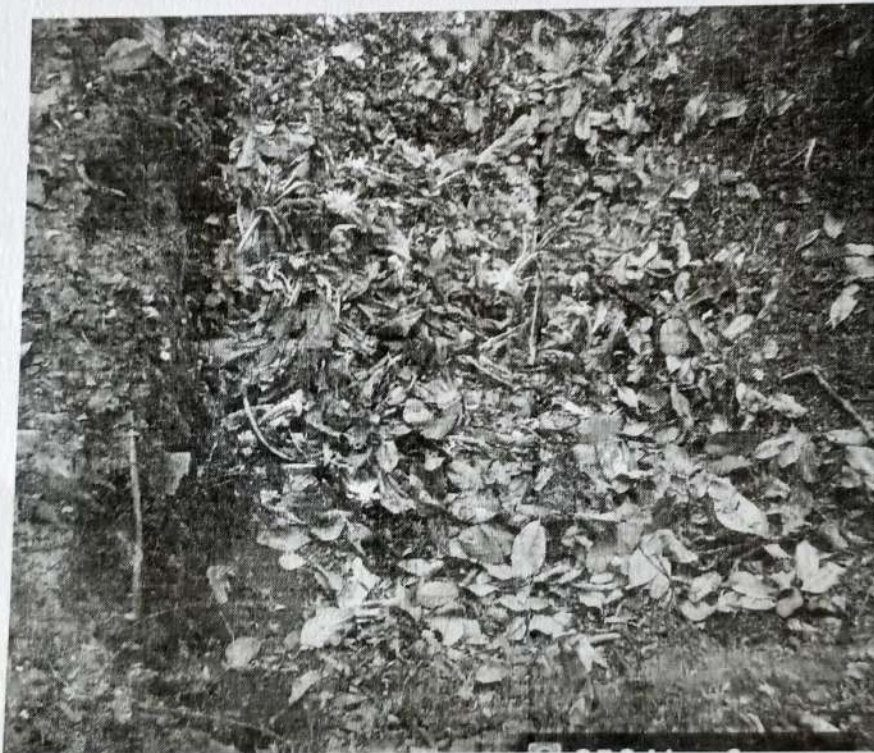
5	<i>Syzygiumcumini</i>	Myrtaceae	Jammu	Fruit bearing/Medicinal
6	<i>Magnolia champaca</i>	Magniliaceae	Champa	Ornamental
7	<i>Mimusopselengi</i>	Sapotaceae	Baula	Medicinal
8	<i>Nyctanthesarbor-tritis</i>	Oleaceae	Gangasiuli	Medicinal
9	<i>Syzygiumaqueum</i>	Myrtaceae	Jamurola	Medicinal
10	<i>Auracariacolumnaris</i>	Araucariaceae	Chilian pine	Ornamental/Timber yielding/edible nuts
11	<i>Thuja occidentalis</i>	Cupressaceae	Temple tree	Medicinal
12	<i>Juniperus communis</i>	Cupressaceae	Juniper	Ornamental
13	<i>Thevetia peruviana</i>	Apocynaceae	Kaniara	Ornamental
14	<i>Alstoniascholaris</i>	Apocynaceae	Chatian	Medicinal
15	<i>Tectona grandis</i>	Lamiaceae	Sanguan/Tea k	Timber yielding
16	<i>Areca palm</i>	Arecaceae		Ornamental
17	<i>Cinnamomum osmophloeum</i>	Arecaceae	Dalchini	Spices/Medicinal
18	<i>Murrayapaniculata</i>	Rutaceae	Kamini	Ornamental
19	<i>Lagerstroemia speciosa</i>	Lythraceae	Pride of India	Ornamental
20	<i>Punica granatum</i>	Lythraceae	Dalimba	Fruit bearing/Medicinal
21	<i>Ilex crenata</i>	Aquifoliaceae		
22	<i>Rauwolfia serpentina</i>	Apocynaceae	Patalagaruda	Medicinal
23	<i>Rovenalamadagascariensis</i>	Stre'litziaceae	Traveller Palm	Ornamental
24	<i>Aloe vera</i>	Liliaceae	Gheekuanri	Medicinal
25	<i>Codiacum variegatum</i>	Euphorbiaceae	Garden Croton	Ornamental
26	<i>Aegle marmelos</i>	Rutaceae	Bela	Medicinal/Fruit yielding
27	<i>Ficus religiosa</i>	Moraceae	Aswastha	Medicinal
28	<i>Elaeocarpus ganitrus</i>	Elaeocarpaceae	Rudrashya	Aesthetic
29	<i>Calistemonchristian</i>	Myrtaceae	Bottle brush	Ornamental
30	<i>Anthocephaluscadamba</i>	Rubiaceae	Kadamba	Ornamental

31	<i>Artocarpus heterophyllus</i>	Moraceae	Panasa	Vegetable yielding
32	<i>Cocos nucifera</i>	Arecaceae	Nadiya	Fruit yielding/Medicinal/other uses
33	<i>Emblica officinalis</i>	Phyllanthaceae	Amla	Medicinal/Fruit yielding
34	<i>Cassia fistula</i>	Caesalpinaceae	Sunari	Ornamental
35	<i>Manikara zapota</i>	Sapotaceae	Sapodilla, Sapote	Fruit yielding/Medicinal
36	<i>Peltophorumpterocarpum</i>	Fabaceae	Radhachura	Ornamental
37	<i>Mangifera indica</i>	Anacardiaceae	Mango	Medicinal/Fruit yielding
38	<i>Albizia lebbeck</i>	Fabaceae	Siris	Medicine/Timber/Forage

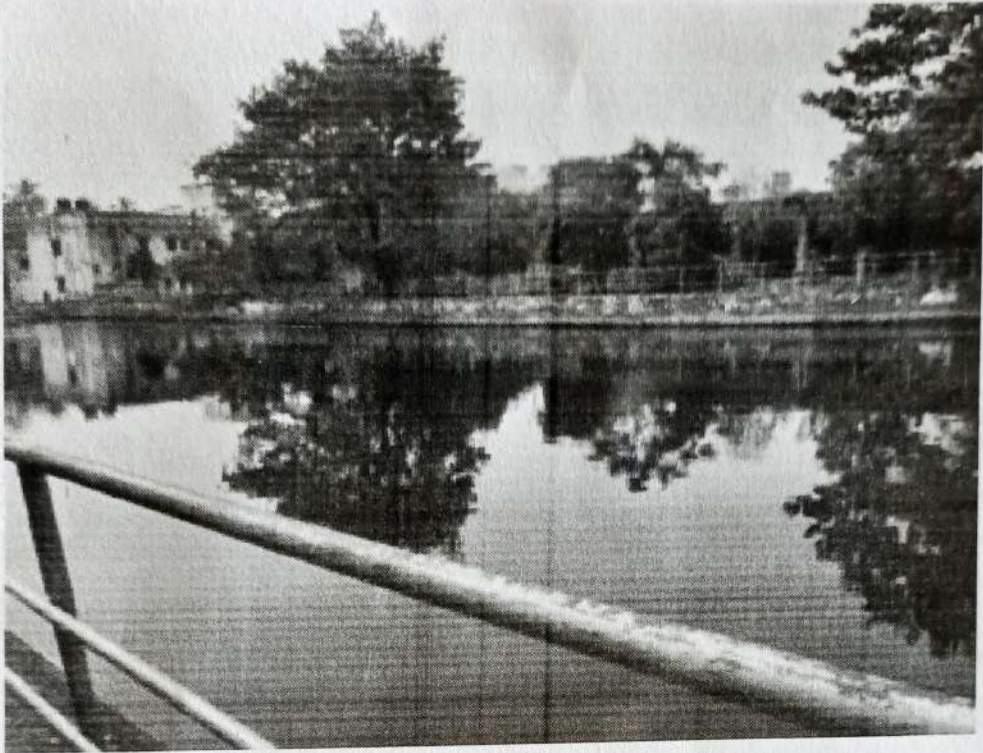
Activity Under Green Audit



Clean air initiative



Solid waste Management (Bio-compost Pit)



Clean pond free from algal blooms



Roof top Rainwater Harvesting System installed in the College Campus



Green carpeting of Science block Botanical Garden

Ratna Prabha Prusti



ENERGY AUDIT REPORT

Shailabala Women's (Autonomous) College, Cuttack



2022

Energy Audit Committee



Convenor: Dr. Biswadas Mohanty- H.O.D Physics

Members:

- 1) Dr. Jamini Ranjan Mohanty, Administrative Bursar
- 2) Dr. Bikash Ku. Das, Oic College Development
- 3) Dr. Anita Mekap, Assistant Professor of Physics
- 4) Sri. Himanshu Sekhar Sethy, Lecturer in Physics
- 5) Smt. Swagatika Pattnaik, Lecturer in Physics

External Member:

Er. Srimanta Sahoo, General Manager OPTCL

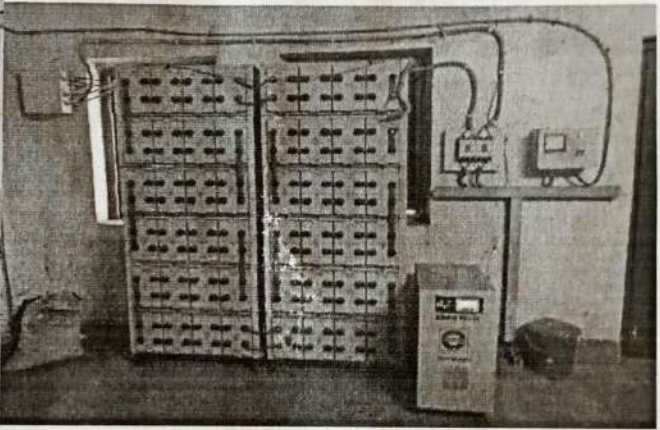
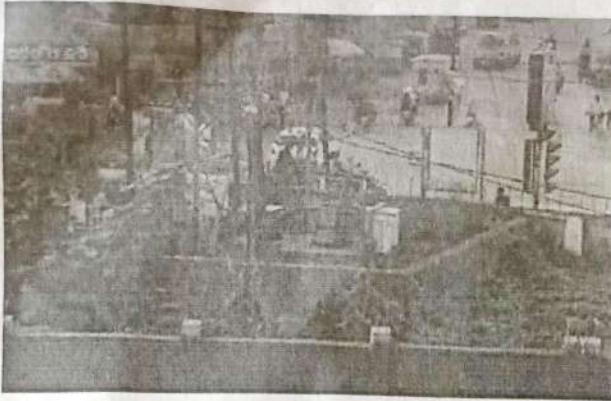
Principal
S.B. Women's (Auto) College
1/c

Findings

The members of the committee visited different Departments, Controller of Examinations, Main office and collected data regarding different electrical appliances installed.

The following observations are made

1. Only one transformer is installed in the campus, which is used for the entire college as well as outside.
2. The college has 4 separate energy reading meters and the average electricity bill is 62865 per month.
3. The list of Electrical fittings and appliances is annexed in the table.
4. In some of the places ordinary bulbs and fans along with energy consuming old devices are still used.
5. The solar panel installed on the roof top of college office is not functioning properly.
6. The roof tops are not painted reflecting white.
7. The electrical instruments having movable parts are not maintained periodically including the AC installed in different places.



Recommendations

The following recommendations are made unanimously.

1. At all places of the college only energy efficient (LED) bulbs and fans should be installed.
2. The old fans should be removed in a phased manner.
3. Two more dedicated transformers should be installed (one in Science block and one in Arts block).
4. The solar panel installed on the roof top of the college office should be made functional, and utilised every day for a certain time even if there is no power cut. This will drastically reduce the energy consumption of the Annual maintenance contract.
5. AMC for all ACs should be made.
6. All roof tops should be painted with reflecting white to reduce the use of AC and fans in summer.
7. All future purchases of electrical appliances should be only of five star rating with in built (AMC).
8. Existing cables and switches to be upgraded with high current carrying capacity, to reduce the losses in electrical circuits.
9. Sensor based panels to be explored with the manufacturers for implementing 'auto-switch off' of fans and lights in unmanned rooms.
10. Campaign to sensitise all concerned on 'electrical safety and energy conservation' as desired by Hon'ble Chief Minister, Odisha.