

ENVIRONMENT AUDIT REPORT 2021-24



HINDOL COLLEGE

KHAJURIAKATA, DHENKANAL, ODISHA

Environment Audit Assessment Team

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Concept

The term 'Environmental audit' or 'Green audit' means differently to different people. Terms like 'assessment', 'survey' and 'review' are also used to describe similar activities. Furthermore, some organizations/institutions believe that an 'environmental audit' addresses only environmental matters, whereas others use the term to mean an audit of health, safety and environment-related matters. Although there is no universal definition of environmental Audit, many leading companies/institutions follow the basic philosophy and approach summarized by the broad definition adopted by the International Chambers of Commerce (ICC) in its publication of Environmental Auditing (1989).

The ICC defines Environmental Auditing as: "*A management tool comprising a systematic, documented, periodic and objective evaluation of how well environmental organization, management and equipment are performing with the aim of safeguarding the environment and natural resources in its operations/projects.*"

The outcome of Environmental Audit should be established with concrete evidence that the measures undertaken and facilities in the institution under green auditing.

Introduction

A Nation's growth starts from its educational institutions, where the ecology is thought as a prime factor of development associated with environment. Educational institutions now a days are becoming more sensitive to environmental factors and more concepts are being introduced to make them eco-friendly. To preserve the environment within the campus, various viewpoints are applied by the several educational institutes to solve their environmental problems such as promotion of the energy savings, recycle of waste, water reduction, water harvesting etc. The activities pursued by colleges can also create a variety of adverse environmental impacts.

Environmental auditing is a process whereby an organization's environmental performance is tested against its environmental policies and objectives. Environmental audit is defined as an official examination of the effects a college has on the environment. As a part of such practice, internal environmental audit is conducted to evaluate the actual scenario at the campus.

Environmental audit can be a useful tool for a college to determine how and where they are using the most energy or water or resources; the college can then consider how to implement changes and make savings. It can also be used to determine the type and volume of waste, which can be used for a recycling project or to improve waste minimization plan. Environmental auditing and the implementation of mitigation measures is a win-win situation for all the college, the learners

and the planet. It can also create health consciousness and promote environmental awareness, values and ethics. It provides staff and students better understanding of Green impact on campus. Environmental auditing promotes financial savings through reduction of resource use. It gives an opportunity for the development of ownership, personal and social responsibility for the students and teachers. Thus it is imperative that the college evaluate its own contributions towards a sustainable future. As environmental sustainability is becoming an increasingly important issue for the nation, the role of higher educational institutions in relation to environmental sustainability is more prevalent. A clean and healthy environment aids effective learning and provides a conducive learning environment. There are various efforts around the world to address environmental education issues.

Environmental Management Systems (EMS) is very popular in the industrial sector, but the general belief is that EMS is something pertaining to industries only. Other parts of the world have started adopting compatible environmental management systems either voluntarily or for promoting standards by external certification. International environmental standards do not suit the existing Indian educational system. Hence a compatible system is adopted by developing locally applicable techniques.

A very simple indigenized system has been devised to monitor the environmental performance of educational institutions. It comes with a series of questions to be answered on a regular basis.

Environmental conditions may be monitored from angles that are relevant to Indian requirements, without stress on legal issues or compliance. This scheme is user-friendly and totally voluntary. The environmental monitoring system helps the institution to set environmental examples for the community and to educate young learners. It can be adapted to urban and / or rural situations.

- **Planning of programme or activity**

The institution has an annual plan and programme for the different activities relating to plantation, gardening (ornamental and medicinal), beautification, auction of uprooted trees, and waste disposal of its own. The different stake holders such as NCC, NSS, YRC, Alumni etc. are advised accordingly to perform such activities in due course of time to adhere the environmental policy of this institution.

- **Implementation and operation**

As per the programme, the institution is planted with different trees by our different stake holders and they are well aware to take care of these plants. Regular awareness programme, meetings and placards rally are going on to aware and activate the students, staff and people of this locality. Cleanness programme are regularly done to make the campus clean. The watering of plants and garden are regularly done through supplied, waste and harvested rain water. The waste management of the institution is properly done as explained in the waste management.

OBJECTIVES OF GREEN AUDIT

The objectives of Environmental Audit -

- To recognize the initiative taken by the College towards environment.
 - To recognize, diagnose and resolve the environmental problems.
 - To recognize the effects of the College on the environment and vice versa.
 - To identify and control the impact of activities of the College on environment.
 - To suggest the best protocols for sustainable environment.
 - To assess environmental performance and the effectiveness of the measures to achieve the defined objectives and targets.
 - To identify the different pressures on the College to improve their environmental performance.
 - To ensure that the natural resources are utilized properly as per national policy of environment.
 - To set the procedure for disposal of all types of harmful wastes.
 - To reduce energy consumption.
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- To give preference to the most energy efficient and environmentally sound appliances
- To minimize the consumption of water and monitor its quality.
- To identify the risks of hazards and implement the policies for safety of stakeholders
- To make sure that rules and regulations are taken care to avoid the interruptions in environment.
- To provide baseline information to enable the College to evaluate and manage environmental change, threat and risk.
- To identify the gap areas and suggest recommendations to improve the Green Campus status of the College.

TARGET AREAS OF GREEN AUDITING

Green audit forms part of a resource management process. Although they are individual events, the real value of green audit is the fact that they are carried out, at defined intervals, and their results can illustrate improvement or change over time. The concept mainly focuses on the efficient use of energy and water; minimize waste generation or pollution and also economic efficiency.

All these indicators are assessed in the process of Green Auditing of this Institute. It focuses on the reduction of contribution to emissions, procure a cost effective and secure supply of energy, encourage and enhance energy use conservation, promotes personal action, reduce the institute's energy and water consumption, reduce wastes to landfill, and integrate environmental considerations into all services considered to have significant environmental impacts. Target areas included in this green auditing are water, energy, waste, green campus and carbon footprint.

Auditing for Water Management

Water is a natural resource; all living organisms depend on water. Groundwater depletion and water contamination are taking place at an alarming rate. Hence it is essential to examine the quality and usage of water in the college. Water auditing is conducted for the evaluation of facilities of raw water intake and determining the facilities for water treatment and reuse.

Auditing for Green Campus Management

Trees play an important ecological role within the urban environment, as well as support improved public health and provide aesthetic benefits to cities. In one year, a single mature tree will absorb up to 48 pounds of carbon dioxide from the atmosphere, and release it as oxygen. The amount of oxygen released by the trees of the campus is good for the people in the campus. So while you are busy studying and working on earning those good grades, all the trees in campus are also working hard to make the air cleaner for you.

Auditing for Carbon Footprint

Burning of fossil fuels (such as petrol) has an impact on the environment through the emission of greenhouse gases into the atmosphere. The most common greenhouse gases are carbon dioxide, water vapour, methane, nitrous oxide and ozone. Of all the greenhouse gases, carbon dioxide is the most prominent greenhouse gas, comprising 402 ppm of the Earth's atmosphere. The release of carbon dioxide gas into the Earth's atmosphere through human activities is commonly known as carbon emissions. Vehicular emission is the main source of carbon emission in the campus, hence to assess the method of transportation that is practiced in the college is important.

METHODOLOGY ADOPTED

The methodology adopted to conduct the Green Audit of the college had the following components

Onsite Visit

Three day field visit was conducted by the Green Audit Team . The key focus of the visit was on assessing the status of the green cover of the college, their waste management practices and energy conservation strategies etc.

Group Discussion

The Group discussions were held with the staff members, students and the management focusing various aspects of Green Audit. The discussion was focused on identifying the attitudes and awareness towards environmental issues at the institutional and local level.

List of Plants in the Campus :-2021-2024

SL.NO	Acacia auriculiformis	Common Name	2023-24	2022-23	2021-22
1	Psidium guava	Pijuli	5	5	7
2	Casuarina equisetifolia	Jhaun	3	5	5
3	Magnolia Champaka	Champa	2	2	3
4	Delonix regia	Gulmohar	5	5	5
5	Caesalpinia plucherrima	Radhachuda	3	3	3
6	Mimusops elengi	Baula	5	5	5
7	Aegle marmelos	Atta	2	2	2
8	Annona reticulata	Saguan	22	25	25
9	Eucalyptus radiata	Eucalyptus	1	1	3
10	Annon squamosa	Atta	2	5	5
11	Acacia auriculiformis	Akasia	12	12	15
12	Ficus Glomerata	Dimiri	5	5	8
13	Monoon longifolium	Debadaru	22	28	35
14	Ficus benghalensis	Bara	1	1	1
15	Delonix regia	Krushnachuda	2	2	5
16	Mangitera indica	Amba	3	3	3
17	Ziziplus jujuba	Barakoli	4	4	6
18	Aegle marmelos	Bela	5	5	8
19	Mimous Pudica	Lajakoli	2	2	3
20	Cocous nucifera	Coconut	3	3	5
21	Madhuca longifolia	Mahula	3	3	3
22	Ficus religiosa	Osta	1	1	1

CONCLUSION

The water and soil was tasted and it is found that, both are suitable for the purpose of plantation of trees and the water can be used by animals as well as human beings. The water is found having pH 7.2 which is the acceptable limit. The soil contains adequate amount of minerals which can be used by the plants. The ph of soil is slightly acidic [6.8] It can be concluded that the environment of Hindol college khajuriakata is suitable for the growth of plants and animals.

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