



SLN DEGREE COLLEGE

Alamur Road, Anantapuramu

(Affiliated to Sri Krishnadevaraya University, Anantapur)



GREEN AUDIT



GREEN & ENERGY AUDIT REPORT

Report Submitted on May 12, 2022

Prepared By

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To
The Principal
SLN Degree College,
Anantapur

Dated: 12/05/2022

Respected Sir

Sub: Submission of Final Report on 'Green Audit' – regarding

Ref: Your letter dated 10-01-2022

Kindly refer to your request and our discussion on the subject mentioned. We are pleased to submit herewith the final report on the 'Green Audit and Energy Audit' conducted at SLN Degree College, Anantapur.

Kindly acknowledge the receipt of the same. Feel free to call us for any clarifications on the subject.

With Regards

- 1) *manu*
- 2) *hnu*
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- 5) *sunitha*



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1. Introduction

The rapid urbanization and economic development at local, regional and global level has led to several environmental and ecological crises. In the present time, the pollution is significantly increasing day-by-day due to the industrialization and urbanization.

Pollution is causing serious health problems to the human being and also polluting the environment. It can also make an adverse effect on the mental, social, and economic ability of the person. It becomes imperative to save the people from dangerous chemicals and waste of the industries / institutions because people have to live in the green environment to lead a healthy life. For this purpose, there is a strict need to employ environmental inspectors who can perform environmental audits to suggest measures to prevent the pollution. On this background it has become essential to adopt the system of green campus for the institutions which will lead to adopt various measures for sustainable development.

Green Audit can be defined as systematic identification, quantification, analysis and reporting of various components of environmental issues. The Green Audit aims at analyzing environmental practices within the College campus, which will have an impact on the eco-friendly ambience. It is initiated with the motive of studying the present policies and to plan for future action plans within the organization whose exercises can cause adopting improvements in the environment. Through Green Audit, the institution can get a direction as how to improve the condition of environment thereby improving the health and living conditions of its stake holders.



1.1 About the College

SLN Degree College was established in the year 2016 . The college was established with the Vision "To empower women students in this drought-prone area with quality, employable and affordable education and to strive to produce graduates who excel academically and embody humane values, professional ethics, and social consciousness." with the Mission to create empower scholastic men and women leaders who are resourceful, service oriental, dedicated in their chosen careers and fields through Quality Education Practices thereby becoming assets to the society and the nation.

This Educational Institution has distinguished itself by its achievements both in academic and social work. The development of the College since its inception is a saga of pioneering excellent and innovative education.

The College has a sprawling campus with classroom buildings and playgrounds. SLN Degree College has spacious, well equipped, sophisticated laboratories to all the disciplines in science and computers. The college is proud to say that one of the best colleges at Sri Krishnadevaraya University.

SLN Degree College contains many facilities such as two seminar halls, open-air auditorium, common room, computer lab, a separate room for girls, and many other student friendly features. The college also has a well-stocked library with a good collection of books, journals, and magazines.

The institution has a consistent track record of good results along with notable performance in extra-curricular and co-curricular activities like Games and Sports, NSS, Literary and Cultural. The College has also



Green and Energy Audit Report, SLN Degree College, Anantapur
adopted "Green Campus" for environmental conservation and protection.

2. Objectives of Green Audit / Environmental Audit:

With the instruction of principal, a five member committee has done Green Audit in the college campus to safeguard the environment and minimize risks to human health. Our team has formulated the following key objectives for Green audit are:

- Determine how well the environmental management information systems and planning are performing.
- Verify compliance with the relevant national, local or other laws and regulations.
- Minimize human exposure to risks from environmental, health and safety problems.
- To make sure that environmental protection rules and regulations are strictly followed in the campus.
- To recognize, diagnose and resolve the environmental problems and issues and to suggest the best protocols for adding to sustainable development.

3. Steps followed:

3.1 Pre-Audit

- Decision to go for Green audit
- Select the audit team/Group
- Acquire the background information of the campus
- Schedule the audit

3.2 On-Site Visit

- Understand the institutional strengths and weakness.
- Analyze the existing internal programs on environmental protection and weaknesses of the internal controls.
- Conduct the Green Audit.



- Evaluate the programs and weaknesses
- Prepare a report which include observations and recommendations.

3.3 Post-Audit

- Prepare a draft report of the data / information collected
- Finalize final report based on the observations and data collected
- Submit the final report to the Principal
- Prepare an action plan for the protection of environment
- Keep a watch on the action plan

4. Scope of Green Audit

4.1 Water Audit: Evaluating the raw water intake and requirement and determining the available sources and facilities for water treatment and water harvesting and re-charge. Water harvesting is one of the best techniques that can be adopted by simply capturing and storing the water and using it at the time of scarcity and various methods and create facilities to recharge ground water.

4.2 Waste Disposal Audit: The total quantum of waste generated, and various waste disposable measures associated to hazardous wastes, recyclable waste and e-waste management are reviewed. Diagnosis of the prevailing waste disposal policies and suggest the best way to combat the problems.

4.3 Energy Audit: It deals with the energy conservation and methods to reduce its consumption and the related pollution. This also deals with production and availability of alternative energy sources. Study the energy saving methods adopted and find whether these methods are using the energy in a conservative way or not.



4.4 Environmental Quality Audit: It analyzes the air quality, noise level and the programs undertaken by the institute for plantation. The Green Belt need to be maintained to reduce the pollution level by decreasing the Carbon dioxide level.

4.5 Health Audit: It analyzes the occupational hazards and safety measures undertaken within the institute. Advocate the college initiative to encourage students to protect environment and conserve it through plantations.

4.6 Using Renewable Energy: Resources which can be replenished should be used such as rain, sunlight, wind, tides, etc. These resources are more advantageous as they cause no pollution.

4.6 Carbon Neutrality: It undertakes the measure of bulk of carbon dioxide equivalents exhaled by the organization through which the carbon neutrality is maintained. It is necessary to know how much the organization is contributing towards the sustainable development and environmental protection to make the campus more environmentally friendly.

5. Benefits of Green Audit

- It would help to protect the environment and suggest various methods to be adopted for its protection.
- Recognize the cost saving methods through waste minimization and waste management.
- Point out the present environment protection methods prevailing and forthcoming complications
- Authenticate conformity with the environmental protection laws
- Empower the stake holders for better environmental protection methods



- Enhance the alertness for environmental guidelines and institutional responsibilities.

6. Action Plan

The Green Audit Conducted at SLN Degree College by the Audit team appointed is based on three aspects.

1. Environmental Audit (Go Green)
2. Energy Audit
3. Waste Management Audit

6.1 Environmental Audit

Maintaining a pleasant and clean environment in an organization is the foundation for a healthy atmosphere in the campus and well-being of student and teaching community. The environmental audit team may focus on subjects such as

- a) What factors can improve the environment and biodiversity in and around the campus
- b) Does the existing infrastructure facilities such as roads, pathways, parking facility etc.; affect the flow of water and drainage and so the biodiversity?
- c) Does the campus have initiatives to improve carbon neutrality in the campus?
- d) Protect existing trees and increase number of trees in the campus
- e) Arranging awareness programs for the staff and students of the college regarding Green Campus initiatives.

6.2 Energy Audit



In the energy Audit, the auditors usually monitor the monthly electrical energy usage of the college. This will help to understand methods to save wherever it could be possible. Scope for identification and generation of alternative energy - Solar, Wind etc.



6.3 Waste management Audit

Hazardous waste is waste that is likely to be a threat to health or the environment. In the campus this audit deserves primary attention as many harmful chemical wastes are produced from the laboratories of various science departments and solid waste that is generated from the Hostels and from offices such as paper etc.

E-waste generated and its management is also a major aspect of the waste audit.

6.4. Recommendations

As of now there are good number of trees planted and growing in the campus. Localized species are used for plantation since they are more suitable to the local environment and habitat. These attract the native birds and insects and can help in biodiversity conservation and reclamation. A count of variety of species can also be kept handy. It can be treated as a structural biodiversity creation effort for achieving substantial positive results.

It is also recommended to plant more number of ornamental plants and also create green pastures where ever vacant portion of land is available.

7. Water

7.1. Sources

The main source of water supply for the institute is from the bore wells supplemented by local Municipal Corporation. The water quantity required per day is around 150000 liters. The



Institute has installed the Water harvesting for about 200000 liters capacity. The drinking water is provided through a 800 liters per hour RO water plant and thereafter to the dispensers at various locations for the ease of access to the students and staff. The drinking water is periodically tested from the laboratory and ensured its potability for drinking purpose.

7.2 Recommendations

Further to the provisions of water in the institution, methods can be applied to use the rooftop rainwater harvesting water for drinking and sanitary purposes by advanced water treatments. Specific efforts for conservation of freshwater through auto water taps based on occupancy sensing mechanism. Separate metering also can be installed for garden and domestic water consumption including ETP recycled treated effluent etc.

8. Energy

8.1 Energy Source

AP DISCOM is the major source of electricity. Around 50 KW is the requirement of the institute. In terms of units, institute consumes around on an average 1500 units per month.

8.2 Use of non-conventional sources

The institute has is planning to install 2 KW powered Solar Panel System in the Institution and planning to connect to Computer division to ensure uninterrupted power supply. The institute has also installed 70 KV Diesel Generator

Energy audit has been conducted and the recommendation has also been implemented specifically for replacement of regular tubes and bulbs with LED bulbs and tubes



and advocating and educating about energy conservation and saving.

8.3 Recommendation

- Periodic energy audits can be planned to have enough data on savings and contribution through use of solar /green energy.
- Occupancy sensors can be planned to avoid manual intervention in shutting off and starting on the lighting systems in various rooms.
- We recommend educating all the students and staff to switch of lights and fans when not in use and save energy stickers to place in all rooms.

9. Effluent

9.1 Effluent Management

Laboratory wastewater generated around 30 liters per day is treated/diluted and discharged in Local Municipal sewage channels.

9.2 Recommendations

Since the wastewater quantities are very minimal, as of now no specific recommendations are required.

10. Sewage

Domestic sewage management

Domestic sewage is generated through the use of water for sanitary purposes. The sewage generated after the use is connected to the municipal sewer lines through the underground sewer lines.

10.1 Recommendation



Based on the consumption of water for each day and the daily water supply quantities domestic sewage can be quantified for further water conservation purpose. Specific water audit can be conducted to know the water inflow and out flow along with the losses, leakages, wastages etc. so as to plan action for water conservation.

11. Solid waste

11.1 Solid waste management

Major sources of solid waste are from the canteen and stationary wastes. The food waste is dumped in specially digged pits and converted as compost and then the manure is used for the plantation sites. Stationary waste is segregated and is given for recycle to paper manufacturers on exchange basis as per the volumes generated.

Paper waste generated in the Office is also dumped in the same pits.

11.2 Recommendation

Quantification of everyday canteen waste can be taken up and it can also be displayed in the canteen to educate the consumers / students about the wastages and losses to the environment and human efforts.

12. E-waste

12.1 E-Waste Management

Since the organization is well established and equipped with the necessary and up-to-date electronic infrastructure, the e-waste generation is very minimal. However, as a proactive initiative, an authorized vendor is identified for servicing and disposal of e-waste in case it is generated. Usually the contracts



for electronic items are done with the buyback assurance so as to meet the e-waste disposal requirements of the legislation. E-waste after generation is segregated from other sources and kept separately identified for disposal in systematic way through the authorized vendors.

12.2 Recommendations

E-waste listing and quantification in detail can be useful further to reduce the e-waste generation.

13. Other Environmental Initiatives

Approximately 400 to 500 visitors visit the campus every year. Institute offer warm and green welcome to them and describes the green initiatives as a part of the induction to them on their visit.

Environmental CSR activities are also conducted every year in the rural areas where in plants are distributed and environmental education programs are conducted every year.

“Vanam Manam” State government sponsored program is organized every year and several farmers take benefits of it.

14. Conclusion

The institute strives hard towards conservation of environment. The institute has put lot of efforts in the rain water harvesting and ground water recharge during the rainy season. It shows the commitment and responsibility towards water management in a draught prone region.

The Institute takes care of the students and staff well. The rooms are well ventilated and having sufficient light levels. There is no much noise that would disturb the education process.



We further recommend to take up Green Audit at the beginning of 2025 as a follow up study.

15. Acknowledgments

We are highly grateful to the Principal and Management of SLN Degree College for entrusting us the Green and Energy Audit project and allowed us to study and submit the Green and Energy Audit Report.

Further we sincerely thank the College staff and students for providing necessary information and co-operation during the audit. This helped in making the audit report on time.

Further we thank all the staff and Management for timely help and co-operation

