



BSCIC CERTIFICATIONS PVT. LTD.

**GREEN AUDIT REPORT OF
S.N.M COLLEGE**

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BSCIC Certifications Pvt. Ltd.

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ASSESSMENT REPORT

CPN: BU2441

ARN:

Team Leader: SATHEESH RAMAN

Date:19/04/2023

ASSESSMENT REPORT

Name of Company (Organization): S.N.M College Maliankara (C-11753)				
Environment Audit & Green Audit Audit				
Address: Moothakunnam, Ernakulam - 683516 Kerala India				
Contact Person: Nitha A U	Position: Assistant professor			
Alternate Contact Person: Dr. Baiju.E.C	Position: Assistant professor			
E-mail Id: snmciqac@gmail.com	Website:www.snmcollege.ac.in			
Registration Scope: Improving Environmental Practices through More Efficient use of Resources and Reduction of Waste.				
No. of Employees: 135	No. of Shifts: 9.30 to 16.30			
Company's Key Documented Information Reference (if any):				
Management Standard: Green Audit				
Assessment Type: Initial				
Assessment Team:				
Name	Status	Business Sector		
R.SATHEESH	LEAD AUDITOR			
Mandays: 0.5 MD				
Also mention Name of Observer (If any) & role of Observer:				
Observations raised during Assessment				
Ref. No.	NIL			
Minor/Major				
Closure of Observations / Opportunities for Further Improvement raised during last visit				
Ref. No.				
Closed/Open				

Areas Assessed

Top Management and Management Coordinator, HR, Operational Controls, Performance Evaluation Training, and Controller of Examination

Audit Conclusion & Appropriateness of the Scope

The certificate can be issued in the scope of Improving Environmental Practices through More Efficient use of Resources and Reduction of Waste.

Disclaimer - Auditing & its conclusion is based on a sampling process of the available information

ASSESSMENT COMMENTARY & ASSESSMENT OBJECTIVE EVIDENCE

Executive Summary:

Auditing is based on process of the available information and the audit methods used were interviews, observations, sampling of activities and review of documentation and records. 1 manday Audit was conducted by Mr.Satheesh Raman as Team Leader at Ernakulum Campus . The audit was conducted against the Environment Audit & Green Audit The objective of the audit was to determine conformance

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to the Environment , Energy , waste management requirements. The audit was started with an opening meeting attended by the Green audit committee ,scope, criteria, methodology, sampling principle & confidentiality clause were explained. The organization can be recommended for Environment Audit & Green Audit certification Requirement

1. Introduction

Green campus is an area of the Organization or the Organization as a whole itself contributing to have an infrastructure or development that is structured and planned to incur less energy, less water, less or pollution free, less or no CO2 emission . Green Campus Audit is a tool of the environment management system which is used methodologically for protection and conservation of environment and sustenance of the ecosystem. Green campus constitutes the environmental friendly practices and education combined to promote sustainable and eco-friendly practices along with userfriendly technology in the campus. It creates environmental culture, develops sustainable solutions to environmental problems and provides solutions to various social and economic needs. It provides the concept of Green building and oxygenated building which in turn provides a healthy atmosphere to the stakeholders. Green Campus Audit ensures the Organization's campus should be greenish with large diversity of trees, herbs, shrubs, climbers and lawns to reduce the environmental pollution and soil erosion, also useful for biodiversity conservation, landscape management, proper water irrigation, natural topography and vegetation The maintenance of an eco-friendly campus ensures a neat and clean environment. For the benefit of stakeholders, solid state management, recycling of water, disposal of sewage and waste materials including electronic and biomedical wastes, plastic use, etc. should be followed consistently in the organization campus. Green Campus Audit procedures includes the definition of green audit, methodology on how to conduct Green audit at Educational Institutions and Industrial sectors as per the checklist of Environment Management Systems and International Standards on ISO 14001:2015, Indian Green Building Council, Swachh Bharath Scheme under Clean India Mission to understand the principles and importance of various audits . It analyses to help the educational institutions and industries to maintain eco-friendly environment and personal hygiene to various stakeholders and supports the nation as a whole for the noble cause of environmental protection and nature conservation which in turn enhances the quality of life to all living beings.

1.1 About the College

Sree Narayana Mangalam College, Maliankara is situated in Paravur taluk, Ernakulam district,Kerala.Maliankara is located in 10.18°N,76.19°E coordinates.It is a village located near Moothakunnam.It is also a boat ride away from Munambam and accessible by bridge to Pallipuram of Vypin island.Six kilometres apart from Maliankara is the Cherai beach.Along with Munambam it forms the north-west corner of Ernakulam district where the Periyar river ends in Arabian sea.It is located west of Kottuvallikadu and east of Pallipuram. Towards the north it is separated by Periyar river to Azhicode which is in Thrissur district.The study area of the present work is the campus of this college which covers an area of 25 acres. Study was conducted in order to know about the diversity of Gamopetalae and Monochlamydae in the campus.SNM College is blessed with variety of angiosperms. The collections were carried out extensively during months,January-March. Bentham and Hooker's system of classification was followed and divided class dicots into subclass Polypetalae,Gamopetalae and Monochlamydae. The collected Gamopetalae were identified by using 'The Flora Of Presidency Of Madras', Volume 2 and 3 by J.S Gamble and Fischer and handbook named 'Biodiversity documentation for Kerala,Part 6:Flowering plants' by Dr.N. Sasidharan.

2.Objectives of the Study

- To recognize the initiatives taken towards the green campus by means of gardening by the Organization.
- To identify and provide baseline information to assess threat and risk to the ecosystem due to Organization development.
- To recognise and resolve different environmental threats of the Organization.
- To grow a large number of oxygen producing and carbon-di-oxide absorbing plants in the campus to give a pure atmosphere to the stakeholders.
- To ensure proper utilization of resources available in the surrounding areas towards future welfare of the community.
- To set a procedure for disposal of all kinds of wastes and use green cover as a carbon sink for pollution free air.
- To assess the greenish nature of an Organization campus in terms of trees, herbs, shrubs, climbers, twins, lianas, lawns and reflected in reducing the environmental pollution soil erosion, biodiversity conservation, landscape management, natural topography and vegetation.

3. Methodology

Green campus audit is a structured process of documenting the credentials in terms of number of trees, herbs, shrubs, lawns, climbers and lianas reflected in reducing the environmental pollution and soil erosion and useful for biodiversity conservation, landscape management, natural topography and vegetation. It is a kind of a professional tool for assessing the green campus. Green audit projects the best environmental practices and initiatives taken in the organisation at the prescribed site of audit that brings added value to the organisation in maintaining the eco-friendly campus to the stakeholders. The purpose of the green audit is to ensure that the practices followed in the campus are in accordance with the Green and Environment Policy developed by the Government and private agencies working with environment sustainable development adopted by the institution. The criteria, methods/procedures, checklists and recommendations used in the audit were based on the identified risks. The methodology includes: preparation and filling up of questionnaire along with checklists, physical inspection of the campus, observation and review of the document, interviewing responsible persons and data analysis, measurements and recommendations. The methodology adopted for this audit was a four step process comprising of data collection, data analysis, best practices followed in the campus and recommendations and suggestions given to the organization to improve the greeneries practices further.

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4.1. Waste Minimization and Re-cycling –

Type of Wastage in Per Day	Amount in Kg
Degradable	18 Kg
Non degradable	1 Kg

The following categories of wastes are generated in the College campus:

- Solid waste - Waste generated through paper, plastic packaging causes nuisance. Some wastes are generated after various experiments, primarily, chemistry laboratory; broken test tube, glassware are the example.
- Liquid waste - There are biochemical wastes generated through various chemical reactions and biological processes
- e-waste-Waste generated through electronic equipments, computer, printer etc

Source of Wastage in Different Sector (per day in Kg):

Source of Wastage in Different Sector(per day in Kg)	Degradable wastage	Non Degradable wastage
	Kg	
Canteen,	12 Kg	0.2 kg
Quarters	Nil	Nil
Hostel	3 Kg	0.5 Kg
Office	0.75 Kg	0.3 Kg
Laboratories	0.1 Kg	0.45 Kg
Forest and Garden	Nil	Nil
Others	0.25 Kg	0.15 Kg

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Implemented wastes management

Sl.No		Factors/Indicators Weight age H/M/L * H denote- Taken above 60% , ** M denote- Taken level 40%-60% ,*** L denote- Taken level below 40%
1	Plastic and Polythene free	H
2.	Re-use of papers	H
3	Hazardous effect waste management	M
4	Removal of E-Wastes	H
5	Organic & food waste	H
6	Others solid wastes	H

Refer -Annex

4.2. Greening

Refer Annex

4.3. Energy Conservation

Electricity Consumption

Rs.2,32000/- Per Year

Energy Consumption in different Purpose in Percentage:

Energy Consumption in different Purpose	In Percentage
light and fans	Fan:426*60 = 25560, Light: 470*40=16680 Total= 42240 Watts(66.7%)
AC	8*2500= 4000 Watts (7.9%)
Pump	12000 Watts (13 nos) (15.5%)
Computer and Laboratory	5550 Watts (2.9%)
Others	1000 Watts (0.9 %)

Number of Gas cylinders used for cooking purpose(Hostels& Canteen) -6 PC

Number of Gas cylinders used in Chemistry Laboratory - 1 PC

b. Energy

c. Diesel used for green Generator

40.8 litre per month

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❖ Number of Green Generators	Nil
❖ Cost of generator fuel	4000 Rs /month

4.4. Water Conservation

Use of water in Different Purpose of College Premises:

Use of water in Different Purpose Per Day	Use in Percentage
Bathing and washroom	26.2 %
Cooking and washing	23%
Cleaning and gardening	36.8 %
Drinking	12.8%
Others	2.5 %

Quality Of Water

Sl.No.	Factors	Weightage (H,M,L) * H denote- Taken above 60% ** M denote- Taken level 40%-60% *** L denote-Taken level below 40%
1	Quality of Water	H
2.	Re-use of water	M
3	Water Harvesting & Recharge	H

4.5. Clean Area

Green Coverage of the College Premises:

Green Coverage of the College Premises	Area in Percentage
Native and Natural Vegetation	12 %
Plantation	5%
Agro-Plants	3 %
Medicinal Plants 10.3	3%

Recommendations : 1) More villages can be involved in plantation drive , a future plan to be decided as

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per annual calendar. 2) The specified number of plants and the type of plants

4.5. Animal Welfare

The observations on fauna diversity incated SNM College campus has a large number of living as well as visiting animals, birds, reptiles and insects including termids. A total number of 32 birds belonging to the 12 species were recorded from different habitats during winter and summer, of them one of which were endemic to the western Ghats like purple rumped sunbird.

4.5. Environmental Legislative

Kerala Government providing us necessary facilities and co-operation during the Green Campus Audit. This helped us in making the audit a magnificent success. Further, we hope this will boost the new generation to take care of the environment and propagate these views for many generations to come by the Institution Management.

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. International Journal of GEOMATE 14 (44): 26-32. Awasthi, D.D. 2007. A Compendium of the macrolichens from India, Nepal and Sri Lank. Bishen Singh Mahendra Pal Sin, Dehradun, Uttar Pradesh, India, 278p.

Methods and procedures for environmental risk assessment. Environmental Engineering and Management Journal 6 (6): 573-592. Carbon footprint calculation. www.carbonfootprint.com. Cardozo, N.H., da Silveira Barros, S.R., Quelhas, O.L.G., Filho, E.R.M. and Salles, W. 2019. Benchmarks analysis of the higher education institutions participants of the Green Metric World University Ranking. Silent Valley, Kerala. Journal of the Bombay Natural History Society 97 (3): 390–399. National Environmental Policy-2006, Government of India, Ministry of Environment and Forest, New Delhi. Biotechnology Techniques in Biodiversity Conservation. New Age International, New Delhi, India. . Importance of Environment and Green Campus Audits to Educational Institutions.

4.5. General Practices

Observations

Observations: 1) The roles to maintain green environments is given to various departments like a) Horticulture for plantation b) Maintenance department for Energy, water, management.

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Additionally, any special drive of plantation is done involving students. 2) The overall management of these departments and maintenance of Utilities is done by the Administration department headed by the Principal & IQAC.

Recommendations: 1) The institute needs to develop SOP's for the green audit with effective Roles Responsibility.

2) The institute needs effective monitoring of all parameters on waste, water management and conservation of energy considering past trends and the objectives to be achieved in Environment management.

3) The green policy to be displayed at prominent locations along with slogans related to saving of resources.

4) Housekeeping schedule needs to be introduced with checklist

5) Energy Audit needs to be done at least once a year.

6) Aspect/impact study and Mock drills for emergency preparedness needs to be introduced.

5. Conclusions

The Institute has already done work on Green Technology and committed to save the environment and resources.

It is recommended to issue the certificate in the scope of "Improving Environment, energy and waste Management practices through more efficient use of resources"

ASSESSMENT COMMENTARY

Positive points:

- 1) The personnel involved in green audit are well conversant with the subject.
- 2) The infrastructure of the Institute is Excellent.
- 3) Enough greenery is observed in the College campus.
- 4) Top Management is committed to implement all the recommendations
- 5) The Department of IQAC has done lot of work on events management to sustain Environmental awareness.

CONFIRMATION

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Provide confirmation on accomplishment of Audit Criteria and Audit Objective	The Audit is completed as per objective and audit criteria.
<u>Assessment of Other Shifts (if applicable) or Review of Other Shift Records</u>	NA
Capture Temporary Site Details with proper Objective Evidence (Can be a part of Production sheet as well)	NA

RECOMMENDATION FOR CERTIFICATION OF COMPLIANCE

Congratulations, we are pleased to recommend certification for the scope detailed in Assessment Report:
(Write NA if this sheet if not applicable)

Applicable in case of Multi Site Organizations Only (Write NA if this sheet if not applicable) - NA

BSCIC shall require evidence of these actions and may increase the sampling frequency and/or the size of sample until it is satisfied that control is reestablished.

Subsequently this Assessment Report Pack along with your satisfactory Corrective Action Plan and objective evidences (if applicable) shall be reviewed independently with in BSCIC.

Once the recommendations are found as sound, BSCIC will be pleased to issue a Certificate of compliance. This will come along with the BSCIC Logo.

The conditions for use of BSCIC Logo have been stipulated and the same will be provided to you. Details of Additional Locations and Activities for certification

DECLARATION OF NON-CONFLICT OF INTEREST

I confirm that I have no consultancy or other commercial association with M/S S.N.M College during the last two years other than activities conducted under the direction of BSCIC.

BSCIC Assessment Report Acceptance

The onsite Environmental Assessment of M/S S.N.M College was completed

BSCIC through its Team Leader / Lead Auditor confirms the Confidentiality of the information received, Observed and Reported by the Team BSCIC.

Team Leader / Lead Auditor by signing this sheet confirm the Non Conflict of Interests with the Organisation.

This report and its full contents are completely understood and accepted.

Please sign below confirming acceptance of the assessment report's contents

(Assessment Report Number):



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Certificate

CERTIFICATE OF COMPLIANCE

This is to certify that:

S.N.M COLLEGE MALIANKARA (C-11753)
MOOTHAKUNNAM, ERNAKULAM – 683 516
KERALA, INDIA

Hereby granted the Certificate Number:

BU2441/21350

Rev.00

Subsequent to the **Assessment** of the organization, it has been found to be operating a Green Audit which complies with the requirements of

GREEN AUDIT

For the following scope:

**Improving Environmental Practices through More Efficient use of
Resources and Reduction of Waste**

For
BSCIC CERTIFICATIONS PVT.LTD.

Sanjay Seth
Managing Director

Originally Registered: **29-Sep-2023**
Issue Date: **29-Sep-2023**
Expiry Date: **28-Sep-2024**

(In case if Surveillance Audit is not allowed to be conducted; this Certificate shall be Suspended/Withdrawn).

Please Re-validate this certificate's status at www.bsc-icc.com at REGISTRATION STATUS.
This Certificate of Registration is granted subject to relevant provisions of the BSCIC Certifications PVT. LTD. Contract Terms & Scheme for Registration Form B018 (Latest Version). Please see B018 at our website www.bsc-icc.com.
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