

Green, Energy and Environmental Audit Report 25-2026



DAYANANDA SAGAR COLLEGE OF ARTS SCIENCE AND COMMERCE

SHAVIGE MALLESHWARA HILLS, KUMARASWAMY LAYOUT, BENGALURU

CERTIFICATE



Certificate of Registration

This is to certify that

**DAYANANDA SAGAR COLLEGE OF ARTS, SCIENCE AND
COMMERCE**

**SHAVIGE MALLESHWARA HILLS, 91ST MAIN RD, 1ST STAGE, KUMARASWAMY LAYOUT,
BENGALURU, KARNATAKA 560111, INDIA.**

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INITIATIVES, ENVIRONMENTAL MANAGEMENT, AND ENERGY AUDITS ACROSS ALL
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1st Surveillance Audit Due: 13th October 2026

2nd Surveillance Audit Due: 13th October 2027
Certificate Expiry: 13th October 2028

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DISCLAIMER

B2BCERT would like to thank the management of Dayananda Sagar College of Arts for assigning this important work of Green, Environmental and energy Audit. We appreciate the co-operation to the teams for completion of assessment.

We would also like to thank **Dr. Gurunath** – Coordinator, *IQAC*, for her continuous support and guidance, without which the completion of the project will not be possible. We are also thankful to other staff members who were actively involved while collecting the data and conducting field measurements and for giving us an opportunity to evaluate the environmental performance of the campus.

B2BCERT Audit Team has prepared this report for Dayananda Sagar College of Arts based on input data submitted by the representatives of College complemented with the best judgment capacity of the expert team.

While all sensible care has been taken in its preparation, details contained in this report have been compiled in good faith based on information gathered.

It is further informed that the conclusions are arrived following best estimates and no representation, warranty or undertaking, express or implied is made and no responsibility is accepted by Audit Team in this report or for any direct or consequential loss arising from any use of the information, statements or forecasts in the report.

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Signature
LEAD AUDITOR

CONCEPT AND CONTEXT

The National Assessment and Accreditation Council, New Delhi (NAAC) has made it mandatory from the academic year 2019–20 onwards that all Higher Educational Institutions should submit an annual Green, Environment and Energy Audit Report. Green Audit is assigned to the Criteria 7 of NAAC, National Assessment and Accreditation Council which is a self-governing organization of India that declares the institutions as Grade A, Grade B or Grade C according to the scores assigned at the time of accreditation. Moreover, it is part of Corporate Social Responsibility of the Higher Educational Institutions to ensure that they contribute towards the reduction of global warming through Carbon Footprint reduction measures.

In view of the NAAC circular regarding Green auditing, the College management decided to conduct an external environment assessment study by a competent external professional auditor. The green audit aims to examine environmental practices within and outside the College campus, which impact directly or indirectly on the atmosphere. Green audit can be defined as systematic identification, quantification, recording, reporting and analysis of components of College/college environment. It was initiated with the intention of reviewing the efforts within the institutions whose exercises can cause risk to the health of inhabitants and the environment.

Through the green audit, a direction as how to improve the structure of environment and inclusion of several factors that can protect the environment can be commenced. This audit focuses on the Green Campus, Waste Management, Water Management, Air Pollution, Energy Management etc. being implemented by the institution. The concepts, structure, objectives, methodology, tools of analysis, objectives of the audit are discussed below.

1. Introduction

Green, Energy, and Environmental Audits help assess and analyze the environmental practices within and outside an institution, evaluating their impact on the overall atmosphere of the campus.

A **Green Audit** can be defined as the systematic identification, quantification, recording, reporting, and analysis of factors that constitute the environmental framework of an institution. Through such audits, the current status, scope for improvement, and actionable recommendations can be provided. This not only strengthens the environmental structure but also enhances resource efficiency, sustainability, and the overall campus atmosphere.

Additionally, Green Audits help identify opportunities for sustainable development practices, enhance environmental quality, improve health, hygiene, and safety, reduce liabilities, and save costs while promoting values of sustainability and responsibility.

As per the **National Assessment and Accreditation Council (NAAC) – Criteria 7**, Green Audits form an essential part of institutional accreditation. This process enables institutions to showcase their commitment to sustainability, environmental responsibility, and student well-being, thereby strengthening their reputation and competitive advantage.

1.1 Need for Green, Energy, and Environmental Audits

- To determine whether institutional practices are eco-friendly and sustainable.
- To address the challenges of overutilization of natural resources such as energy and water.
- To evaluate consumption and wastage, ensuring efficient resource use.
- To provide opportunities for reflection, improvement, and clean, green resource utilization.
- To instill awareness and responsibility among staff and students toward environmental sustainability.

1.2 Goals of Green Auditing

- a) Identify strengths and weaknesses in environmental practices.
- b) Analyze and recommend solutions for identified issues.
- c) Assess environmental risks associated with campus activities.
- d) Motivate staff and students for sustainable resource utilization.
- e) Enhance environmental awareness across the campus.
- f) Collect baseline data of environmental parameters to proactively address issues.

1.3 Objectives of Green Audit

- a) Evaluate current practices and their environmental impact.
- b) Identify and analyze significant environmental challenges.
- c) Ensure continuous assessment for improved environmental performance.
- d) Establish and nurture a sustainable, eco-conscious culture on campus.
- e) Sensitize faculty, staff, and students to environmental conservation.

1.4 Benefits to Educational Institutions

- a) Improved environmental quality inside and outside campus premises.
- b) Cost savings through green strategies like waste minimization, energy efficiency, and water conservation.
- c) Empowerment of stakeholders to embrace eco-friendly practices.
- d) Enhanced institutional reputation as a green and sustainable organization.

2. Scope of Green, Energy, and Environmental Audits

The scope of these audits includes:

- a) Promoting environmental education through systems thinking and EMS (Environmental Management System) approach.
- b) Benchmarking initiatives for environmental protection and sustainability.
- c) Financial savings through efficient energy and resource use.
- d) Enriching the curriculum with practical, hands-on environmental experiences.
- e) Enhancing institutional image and environmental standards.
- f) Strengthening environmental ethics and values among students.
- g) Developing ownership, responsibility, and accountability for the campus and surrounding environment.

OVERVIEW OF THE COLLEGE

Dayananda Sagar College of Arts, Science and Commerce (DSCASC), is one of the oldest degree colleges in Bengaluru, run under the Dayananda Sagar Institutions. It is affiliated to Bangalore University. The college runs abiding the vision of their late founder, Sri Dayananda Sagar's visionary outlook of 'Live the Dream'. The college holds a legacy of creating many outstanding individuals who have delivered their contributions to society in various fields. As a contemporary leader in the realm of education and being one of India's esteemed institution, Dayananda Sagar Institutions

The institution's philosophy is to blend individual academic brilliance with holistic development. The students are provided with finest qualitative education in a challenging academic atmosphere to introduce growth under the nurturing guidance of the faculty. With an emphasis on developing the critical thinking skills of students and transform them into socially progressive and responsible individuals who move the world with their compassion and skills, the students in DSCASC are guided to reach their full potential through a cultural and scientific pedagogical strategy designed for holistic growth. The environment in the campus is such that, freedom of thoughts and conversations encourage students to discover and explore a wide range of possibilities presented to them during the course of their study.

In this regard, students are provided with well-equipped lecture halls and laboratories to explore theory in practice, libraries to enhance their knowledge, computer facilities along with a high-quality teaching faculty.

There also opportunities for doctorate and post-doctoral research within the campus. Apart from academics, an outstanding sports and recreational facility is presented to the students. Outside classrooms students have safe hostel facilities to both local and international students with provisions for modern cafeterias that address their nutritional needs. The institution has mindfully provided sufficient space for all the essential requirements of the student, such as bicycle parking, proper roads, a sitting area, well-maintained washrooms, clean filtered drinking water, good playgrounds and well-managed green space. The corridors are clean with provisions for dustbins and lights wherever necessary are present. These amenities reflect the institution's mission to focus on the overall development of the student as a responsible, intellectually awake and creative citizen who grows with mutual understanding and solidarity thereby moulding them into ethically sensitive future leaders.

AUDIT PARTICIPANTS

On behalf of B2BCERT Services

Name	Position	Qualifications
Ms. Manisha Shettiyar	Lead Auditor	Lead Auditor ISO 14001:2015

EXECUTIVE SUMMARY

Green auditing is an essential step to identify and determine whether the institutions practices are sustainable and ecological. Traditionally, we were upright and efficient users of natural resources. But over the period of time, excessive usage of resources like water, electricity, petrol, etc. have become habitual for everyone especially, in urban and semi-urban areas. It is actually the right time to check if we (our process) are consuming more than required resources? Whether we are using resources sensibly?

Green audit standardizes all such practices and provides an efficient way to use natural resources. In the time of climate change and resource exhaustion it is necessary to re-check the processes and convert it in to green and sustainable. Green audit provides an approach for it. It also increases overall awareness among the folks working in institution towards the eco-friendly environment.

This is the second attempt to conduct green audit of this College campus for fulfilment of NAAC criteria. This audit was mainly focused on greening indicators like consumption of energy in terms of electricity and fossil fuel, quality of soil, water usage, vegetation, waste management practices and carbon foot print of the campus. Initially a questionnaire was shared to know about the existing resources of the campus and resource consumption pattern of the students and staffs in the College.

GREEN AUDIT - ANALYSIS

1.1 GENERAL INFORMATION

1. Does any Green Audit conducted earlier?

Yes, this is the second external audit organized by the college

2. What is the total strength (people count) of the Institute?

Students

Male: 1855

Female: 1066

Total: 2921

Teachers (including guest faculty)

Male: 29

Female: 77

Total: 106

Non-Teaching Staff

Male: 10

Female: 08

Total: 18

Total Strength

Male: 1894

Female: 1151

Total: 3045

3. What is the total number of working days of your campus in a year?

There are one hundred eighty working days in a year approximately.

4. Where is the campus located?

The campus is located at Shavige Malleshwara Hills, Kumaraswamy Layout, Bengaluru

5. Which of the following are available in your institute?

Garden area	Available
Playground	Available
Kitchen	Available
Toilets	Available
Garbage or Waste Store Yard	Available
Laboratory	Available
Canteen	Available
Hostel Facility	Available
Guest House	Available

6. Which of the following are found near your institute?

<i>Municipal dump yard</i>	<i>Not in vicinity of institute</i>
<i>Garbage heap</i>	<i>No Garbage heaps</i>
<i>Public convenience</i>	<i>Public convenience is available</i>
<i>Sewer line</i>	<i>Approximately 2 KM sewer line within campus</i>
<i>Stagnant water</i>	<i>No stagnant water</i>
<i>Open drainage</i>	<i>No</i>
<i>Industry – (Mention the type)</i>	<i>No</i>
<i>Bus / Railway station</i>	<i>Metro/Bus connectivity</i>
<i>Market / Shopping complex</i>	<i>Available</i>

1.2 WASTE MINIMIZATION AND RECYCLING

1. Does your institute generate any waste? If so, what are they?

Yes, Solid waste, Canteen waste, paper, plastic, horticulture, laboratories waste, e-waste, etc.

2. What is the approximate amount of waste generated per day? (In KG approx.)

*Biodegradable waste - -
Non-biodegradable waste - 180 Kg
Hazardous Waste < 9 Kg
Others - 2 Kg*

3. How is the waste managed in the institute? By Composting, Recycling, Reusing, Others (specify)

- *Composting is done for horticulture waste management.*
- *Hydroponics technique is used to recycle the grey water from college mess*
- *Aerobic Composting is done for bio-degradable waste management.*
- *Diluted solutions are used instead of concentrated solutions in laboratories*
- *One side printed Paper is re-used for internal communication.*
- *Solid waste is taken by Municipal Corporation after collecting the BMW separately*
- *Single use plastic is banned in the campus*
- *Paper recycling plant is installed in the campus*

4. Do you use recycled paper in institute?

Yes, and there is fully functional paper recycling plant in the campus

5. How would you spread the message of recycling to others in the community?

Following are the ways through which college is spreading the awareness about recycling

- *Poster competition activities*
- *Campaigns*
- *Webinars and seminars*

6. Can you achieve zero garbage in your institute? If yes, how?

Not yet achieved. Possible through waste management policy and planning.

1.3 GREENING THE CAMPUS

1. Is there a garden in your institute?

Yes, Areas are developed as Gardens.

2. Do students spend time in the garden?

Yes, students spend around 2-4 Hours during winters.

3. Plants in Campus?

Plant type with approx. count

4. Is the College campus having any Horticulture Department? (If yes, give details)

Yes, Total 2 staff deployed in horticulture

5. How many Tree Plantation Drives organized by campus per annum?

Five+ tree Plantation Drives are organized by campus in the last FY plants planted in this Financial Year with more than 85% survival rate.

6. Is there any Plant Distribution Program for Students and Community?

Yes, college has a practice where all guests are given a planter as a gift rather than a bouquet of flowers. Besides this landscape, Plantation is also done by the Dayanand Sagar team

8. is there any Plant Ownership Program?

Yes, Committee has encouraged students to adopt a tree in their neighborhood

1.4 WATER AND WASTEWATER MANAGEMENT

1. List uses of water in your institute

Basic use of water in campus:

Drinking – 66.00 KL/month

Gardening – 350.00 KI/month

Kitchen and Toilets – 2985 KL/month

Others – 854 KL/month

Hostel – 5710 KL/Month

Total = 2812.34 KL/Month

2. How does your institute store water? Are there any water saving techniques followed in your institute?

There are total 192500+ liters water storage of water and boosting within the College campus.

Sl. No	Storage Type
1	OVER HEAD TANK
2	UNDER GROUND TANK (Fire tank)
3	UNDER GROUND TANK
4	UNDER GROUND HEAD TANK
5	TOTAL STORAGE CAPACITY

Saving Techniques

- Avoid overflow of water controlled valves are provided in water supply system.
- Close supervision for water supply system.
- Water Conservation awareness for new students
- Sprinklers usage for gardening and grass cover

3. Locate the point of entry of water and point of exit of waste water in your institute.

Entry - Water comes from BBMP

Exit- From Canteen, Toilets, bathrooms, Hostels and Labs through covered drainage which is connected to sewage

4. Write down ways that could reduce the amount of water used in your institute

Basic ways:

- Close the taps after usage
- Water Conservation awareness for new students
- Maintenance and monitoring of valves in supply system to avoid overflow, leakage and spillage
- In new block, push tap are installed to save water

1.5 ANIMAL WELFARE

1. List the animals (wild and domestic) found on the campus (dogs, cats, squirrels, birds, insects, etc.)

Approx. 20 species of Birds, 3 Cats, around 100+ Squirrels and 20+ butterfly species are found in campus. No stray dog is visible in the vicinity of the college. A variety of bird's species and other flora and fauna are available, so institute is doing their bit for bio diversity conservation.

2. Does your institute have a Biodiversity Program?

Yes, Society actively organizes awareness through various campaigns and activities including seminars, poster competition, etc.

Internal Quality Assurance Initiative

- Let's Plant – Save Tree and Save Life
- Yoga Day Meditation and Stress Management
- Visit to Pyramid Valley
- Anna Danam at Pyramid Valley International Mediation Centre
- Outbound programme – Support drive to Orphanage
- Launch of Event Bird Watchers Club
- Blood Donation Camp
- Awareness Creation on Sustainable Life style

GREEN INITIATIVES BY CAMPUS

- **Environment Day**
- **Plant Festival**
- **A visit to international trade fair**
- **ATAAVI-Launch Event of Bird Watchers Club**
- **Pledge for Every Drop - A Promise to Protect Water**
- **Seminar on “Sustainable Waste Management: The Power of Composting**
- **Collage**
- **Awareness creation on Sustainable lifestyle**
- **Earth Day – Celebrating and Protecting Our Planet**
- **ATAAVI - Wild life photography event**

ISO 14001:2015- Environmental Management System

Sl. No.	Clause	Compliance/ Non - Compliance/ Area of Improvement	Comments
1	Scope	Compliance	The Environmental Management System (EMS) encompasses all processes related to the design, development, production and delivery of the EMS. This scope ensures compliance with the requirements of ISO 14001:2015 and supports the achievement of the organization's objectives.
2	Normative References	Compliance	References include ISO 14001:2015 and ensuring alignment with Environmental management best practices. Sector-specific guidelines for companies are also incorporated.
3	Terms and Definitions	Compliance	Key terms like 'Nonconformity,' 'Corrective Action,' are aligned with ISO requirements, ensuring clarity in implementation and audits.
4	Context of the Organization		
4.1	Understanding the Organization and its Context	Compliance	Organization has defined the internal and external issue, Internal and external factors including regulatory compliance and market trends.
4.2	Understanding the Needs and Expectations of Interested Parties	Compliance	Interested parties including customers, regulators, employees and suppliers. Needs and expectations are assessed via surveys, reviews and stakeholder meetings, ensuring compliance and engagement.
4.3	Determining the Scope of the Environmental Management System	Compliance	The scope aligns with strategic goals to provide high-Environmental in its process, ensuring sustainability and regulatory compliance.
4.4	Environmental Management System and Its Processes	Compliance	All processes, including inputs, outputs and interdependencies across departments are mapped within the EMS manual, ensuring to enhance process transparency and accountability.
5	Leadership		
5.1	Leadership and Commitment	Compliance	Top management actively participates in reviewing objectives, allocating resources, and engaging in audits, demonstrating strong leadership commitment to the EMS framework.
5.2	Policy	Compliance	Organization has documented the EMS policy and is communicated through training and have made sure of access to all the relevant stake holder.

5.3	Organizational Roles, Responsibilities and Authorities	Compliance	Roles and responsibilities are outlined and documented at a high level; however, comprehensive role-specific documentation requires further enhancement.
6	Planning		
6.1	Actions to Address Risks and Opportunities	Compliance	Organization has appropriately identified and addressed risks and opportunities in alignment with the context of the organization. Actions taken are proportionate to the potential impact.
6.2	Environmental Objectives and Planning to Achieve Them	Compliance	Objectives, Monitoring is in place, needs an enhancement toward process approach.
6.3	Planning of Changes	Compliance	A formal Change Management Procedure is in place, ensuring impact assessments and stakeholder approvals before implementation.
7	Support		
7.1	Resources	Compliance	Sufficient resources are allocated through annual budgeting, covering training and infrastructure and EMS maintenance.
7.2	Competence	Compliance	Competence is evaluated via skills assessments, training programs, and maintenance of a competence/skill matrix. This ensures staff qualifications align with ISO standards.
7.3	Awareness	Compliance	Employees participate in periodic EMS awareness sessions and receive updates through emails and notice boards, fostering a strong compliance culture.
7.4	Communication	Compliance	Internal/external communication is facilitated via meetings and emails and the communication matrix is documented.
7.5	Documented Information	Compliance	The Document Control Procedure outlines version control, access permissions and review intervals.
8	Operation		
8.1	Operational Planning and Control	Area of Improvement	Organization strengthen its Environmental Management System by ensuring that all processes are formally documented as SOPs, supported with control checklists and reviewed periodically. This will enhance process standardization, improve stakeholder understanding and ensure alignment with ISO 14001:2015 requirements.
8.2	Requirements for Products and Services	Compliance	Requirements are reviewed during the onboarding of the customer to ensuring clear deliverables.
8.3	Design and Development of Products and Services	NA	Since the Organization does is not product based i.e., product developed in house Design and development shall be out of scope

8.4	Control of Externally Provided Processes, Products, and Services	Compliance	Although suppliers are evaluated annually based on performance metrics such as delivery time and Environmental of goods, the process can be strengthened by improving inventory tracking to ensure better accuracy, visibility, and control over stock management.
8.5	Production and Service Provision	Compliance	Detailed work instructions and traceability records ensure service compliance with ISO standards. Products Production is not in scope of the Organisations.
8.6	Release of Products and Services	NA	Since the Organization does is not product based i.e., Product/Service developed in house Design and Product release shall be out of scope
8.7	Control of Nonconforming Outputs	Compliance	All the process with in Organisations undergo a periodic review, control of Nonconforming outputs shall; be documented and monitored.
8.8	Operational Planning and Control	Area of Improvement	Standard Operating Procedures (SOPs) for various processes are not documented. Developing and implementing documented SOPs will help ensure consistency, process standardization and effective communication with stakeholders and compliance with ISO 14001:2015 requirements.
8.9	Emergency Preparedness and Response	Area of Improvement	Emergency drills must be conducted, with response plans updated based on feedback, ensuring readiness in case of emergency.
9	Performance Evaluation		
9.1	Monitoring, Measurement, Analysis, and Evaluation	Compliance	Objective Monitoring/KPIs are tracked However, documentation accessibility needs improvement along with the Customer satisfaction must be taken to ensure the Environmental.
9.2	Internal Audit	Compliance	Internal audits shall be conducted at the regular Interval and findings are reviewed in management meetings for corrective actions.
9.3	Management Review	Area of Improvement	EMS performance, audit findings, objectives, Risk, Incident etc. are reviewed at a regular interval, but follow-up actions require better documentation.
10	Improvement		
10.1	General	Compliance	Continuous improvement initiatives are documented and periodically reviewed, ensuring ongoing process enhancement.

10.2	Nonconformity and Corrective Action	Area of Improvement	Nonconformities are logged, root causes analyzed and corrective actions implemented. However, tracking and verification need strengthening.
10.3	Continual Improvement	Compliance	Organization continually improve the suitability, adequacy and effectiveness of the EMS. Customer feedback, audit results and performance data help identify areas for continual improvement.

Initiatives



Class room



Laboratory



Environmental Initiatives



Fire Extinguisher



Green Initiatives



Play Ground



Solar Plants

RECOMMENDATIONS

- Environmental parameters should be included in purchase policy to achieve a cradle to grave approach for sustainability.
- College should go for water balancing / audit for monitoring the use and wastage of water.
- Water Meter should be installed at every building of institute for monitoring of water consumption per capita.
- College should start drip irrigation to save water in campus
- College should increase the use of Sprinklers gardening purpose
- Increase plantation drives in nearby villages, local bodies, NGO and Municipal Corporation.
- Arrange training programs on environmental management system and nature conservation for schools and local people.
- Establish an E-waste collection Centre in campus.
- Green building guidelines for future expansion projects of the campus

CONCLUSION

This audit involves considerable team discussions and meetings with key staff members on a variety of environmental-related topics promotes conservation of resources.

The College makes a significant effort to act in an environmentally responsible manner and takes into account the environmental effects of the majority of its activities. The recommendations in this report suggests some more ways in which the College can work to improve its practices and develop into a more sustainable institution, despite the fact that it performs rather well overall.

It's important to begin a few things, such drip irrigation and checking the water flow from the taps. Additionally, we strongly advise installing water meters at each building/block and water balancing report.

******* END OF THE REPORT *******