

# GREEN AUDIT

**STUDY PERIOD (FIVE YEARS) 2018-19 TO 2022-23** 

## **AUDIT REPORT**

#### Studied for

Amareshwar College, Aurad(b) Karnataka, India

#### Studied by

Department of Botany BVB College Bidar

HEAD OF BOTANY DEPARTMENT B.V.B. College, BIDAR-585 483 (K.S.)

## Disclaimer

The Audit Team has prepared this report for the **Amareshwar Arts and Commerce Degree College** located at <u>Aurad (B)</u>, <u>Bidar District Karnataka</u>, <u>India</u> based on input data submitted by the Institute analysed by the team to the best of their abilities.

The details have been consolidated and thoroughly studied as per the various guidelines for Green Buildings available in National and International Standards; the report has been generated based on comparative analysis of the existing facilities and the prerequisites formulated by various standards. The inputs derived are a result of the inspection and research. These will further enhance and develop a Healthy and Sustainable Institution.

These can be implemented phase wise or as a whole depending on the decision taken by the Hon'ble Management and Institute. The warranty or undertaking, expressed 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.

The audit is a thorough study based on the inspection and investigation of data collected over a period of time and should not be used for any legal action.

## Acknowledgement

The Audit Assessment Team thanks the **College** for assigning this important work of Green Audit. We appreciate the cooperation extended to our team during the entire process.

Our heartfelt thanks are extended to the Chairperson of the entire process **Dr. Jayadevi Teli** (Principal) for the valuable inputs.

We are also thankful to Institute's Task force the faculty members who have played a major role in data collection – **specially Dr. Mujeeb and Sri. Rajappa** (Supporting staff).

We highly appreciate the assistance of the **entire Teaching**, **Non-teaching**, **and Admin staff** for their support while collecting the data.

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## 1. Introduction

## 1.1 About the statements of the Institute

Amareshwar Arts and Commerce Degree College, established in 1979, is a prominent educational institution affiliated with Bidar University, Bidar. Recognized under Sections 2(f) and 12(b) of the UGC Act, the college is situated in a rural setting on a sprawling four-acre campus adjacent to Chintaki Main Road, Aurad-B. The college is well-equipped with modern facilities, including a magnificent two-storied building, well-furnished classrooms, a spacious library, a state-of-the-art computer lab, and smart classrooms. The institution also boasts a large playground and a canteen, creating an environment conducive to both academic and extracurricular pursuits.

Amareshwar College, under the aegis of the Rastriya Rachnatmak Karya Samiti, has been a beacon of educational and social empowerment in this backward region. The college strives to provide quality education to students from border areas where Marathi, Telugu, and Hindi are predominantly spoken. It has consistently produced commendable results, with many students pursuing higher education and achieving bright futures. The institution continues to uphold its mission of promoting Kannada language and fostering economic and social development in the region.

#### 1.1.1 Vision

To empower rural youth by providing accessible and quality education in Arts and Commerce, fostering holistic development, and preparing students to contribute meaningfully to society. We envision a community where education serves as a tool for social and economic transformation, promoting inclusivity, cultural preservation, and lifelong learning.

#### 1.1.2 Mission

- 1. To offer comprehensive BA and B.Com programs that cater to the educational needs of rural students, equipping them with the knowledge and skills necessary for academic and professional success.
- 2. To promote the Kannada language and cultural heritage while embracing diversity and multilingualism within the community.
- 3. To create an inclusive and supportive learning environment that encourages critical thinking, ethical behavior, and active participation in societal development.
- 4. To engage with the local community through outreach programs, fostering social responsibility, and contributing to the socio-economic upliftment of the region.
- 5. To continuously enhance the quality of education through innovative teaching methods, well-equipped facilities, and qualified faculty.

## 1.1.3 Objectives

The Institute has formulated the following objectives to achieve its mission:

- To develop functionally suitable and conducive environment for students and staff for academic purpose.
- ⇒ To develop the departments into the center of excellence.
- □ To develop post graduate centers

## 1.2 Assessment of the Institute

#### 1.2.1 Affiliations

The Institute is affiliated to **Bidar University Bidar and Gulbarga University Kalaburagi.** 

#### 1.2.2 Certification

The Institute has received the following Certifications

- **⇒ NAAC Accredited in 2012 First Cycle**
- **All India Survey of Higher Education (AISHE) code** which is **C-1**

## 1.2.3 Approval

The technical courses provided by the College are approved by **UGC New Delhi under 2f/12b** 

## 2. Overview

## 2.1 Institute Area & Building Spread Area

The site area is 4 acres and the Built-up area of the building is 2010 sq. ft. for an approximately 309 footfalls.

### 2.2 Institute Infrastructure

#### 2.2.1 Establishment

The Institute was established in 1979.

## 2.2.2 Spatial Organisation

There are provisions for staircase for accessibility on the premises, whereas there are amenities such as CCTV, a first aid room, etc.

The Institute is located pretty close to nature and hence has a very fresh environment which is absolutely pollution free and healthy.

The Building is a Reinforced Cement Concrete (RCC) framework building.

## 2.3 Operation and Maintenance of the premises

The interview session and data collection session was held with the staff regarding the operation and working hours. The schedule shared by the team shows that the Institute is working Monday to Saturday beginning at 10:00 hours up to 17:00 hours.

## 3. Research

## 3.1 About the Green Building Study Audit

It is a systematic study of the aspects which make the Institution sustainable and healthy premises for its inhabitants.

## 3.2 Analysis of the Green Building Study Audit

The procedure included detailed verification as follows:

- Investigation
- Technical discussion with team
- Observations
- Inferences

## 3.3 Strategy adopted for Green Building Study Audit

The strategies included data collection from the admin department, actual inventory, investigation to check the operation and maintenance, analysis of the data collection, and preparation of the Report.

## 3.4 Activities undertaken for the Green Building Study Audit

- Discussion with the Institute
- Allotment and Initiation by the Institute
- Data collection
- Submission of the files

## 4. Documentation

#### 4.1 Green Practices Audit

The increasing global warming and climate change have made us realise that apart from the enormous strategies the individual small efforts need to be taken by individuals and Educational Institutes as the younger generations are the future of the world and once they are taught about these practices only then can we assume a better future.

## 4.1.1 Green practices

We observed the following points during the process.

- **Social awareness** The College has taken up awareness drives on various social issues for rural upliftment and regeneration in the college and surrounding villages.
- ⇒ Fresh environment The College provides an eco-friendly ambience with fresh air and soothing environment which helps to maintain a physical and mental balance. This kind of a space it a must for an educational specially technical institute which is inviting and gives the stakeholders an opportunity to explore indoor and outdoor learning to a great extent.
- Silent and peaceful atmosphere The College is located amidst residential areas which are well designed thus these help to maintain the pollution under control and provide a healthy ambience.
- Team work The best quality of the College which sets it apart from other institutes is its coordinating and cooperative staff members, as for a building the foundation plays the most important role for its future similarly for an educational institute its staff members do.

## 4.1.2 Community development

The Dept of Civil engineering celebrated World Environment day on 05 June by the NSS.

## 4.2 Waste Audit

Waste is an inevitable part of our lives. The audit provides an approximation of the types of waste generated, location of waste collections, disposal techniques used, waste segregation methodologies adopted. The waste management strategies are studied and ways that can be adopted aiming to make the premise clean and sustainable are proposed.

S. No.	Type of waste	Source	Current Disposal	Can be retreated?	Methodology
1	Solid waste	Toilets– Biodegradable waste	Soak pit connected for solid- liquid waste management	Yes	TREATED – Biogas plant can be initiated
2	Liquid waste	Toilets, washbasins		Yes	TREATED - Sewage treatment plant can be initiated
3	Paper waste	Newspaper and other paper	Given to vendor	Yes	TREATED – A recycling plant can be initiated
4	E-waste	Computers - Non- biodegradable waste		Yes	TREATED – Tie-up with firms such as Ecoreco, therec, local government to initiate installations
5	Plastic waste	Bottles, wrappers		Yes	TREATED – Tie-up with Bisleri's Bottles for change program or firm that is into clean fuels.
6	Dry waste	Plantations, papers - Non biodegradable waste	No specific practice has been undertaken	Yes	TREATED – Compositing in a temporary setup can be
7	Organic regular waste	Dust, dirt dust waste from indoor spaces			undertaken
8	Bio- waste	Sanitary waste	Not generated	Not generated	Not generated
9	Chemical waste	Chemistry laboratories		Not generated	Not generated

Table 3: Details of the waste management practices adopted by the team

There are 20 dustbins in the indoors and 21 dustbins in the outdoor areas.

#### 4.3 Water Audit

Water is one of the basic needs. Pure drinking water is a resource that needs to be preserved efficiently. A water audit helps to identify the sources of water consumption, and the water requirement by the premises is met by these sources. The effective usage of water without any wastage should be a mandatory practice. Understanding the techniques as per site context to increase water conservation in terms of awareness and practice can be identified and executed as part of this exercise.

### 4.3.1 Water availability and consumption

#### 4.3.1.1 Source of Primary water supply

The College uses drinking water for daily consumption. There are facilities at various locations in the premises as documented below:

S. No.	Туре	Capacity (litres)
1	Underground	0
0	Overhead	1000
3	Rain water harvesting tank	0

Table 4: Details about the water facilities in the premises

## 4.3.1.2 Source of Secondary water supply

The College uses the secondary sources of water supply for general usages such as watering plants, kitchen, toilets, and wash basins connected to the labs and other spaces. **At present, there are 1 bore well available as the secondary source.** 

#### 4.3.3.3 Source of Tertiary water supply

The tertiary source of water is the source of water harvesting; currently the project is under construction with a dedicated rain water harvesting tank. We suggest connecting the rooftop

## 4.3.2 Areas of water usage

Based on the inventory done and data shared by the staff it was found that the premise has the following facilities:

Particulars
General toilet for students
General toilet for staff
Urinals
Taps in wash basins in toilets
Taps in kitchen sinks
Taps in Canteen
Taps in the garden

Table 5: Details of the water usages in the premises

## 4.4 Health and Hygiene Audit

The hygiene is a part and parcel of our daily life. It is extremely essential to keep the surroundings clean in the same manner as we would want our houses to be.

Educational Institutes have a bigger role to play in order to affect the young minds in the positive manner through better hygienic practices.

## 4.4.1 Facilities available

The Institution has washroom facility, hand wash, drinking water and dustbin facilities.

## 4.4.2 Hygiene aspects

There was no major hygiene issue observed anywhere in the premises.

# 5. Suggestions

## Section-wise suggestions related to premises

The following suggestions are to be considered as a **first priority** for implementation. These **should be executed within the next 1.5 to 2.5 years from the date of the Report submission.** The Institute can execute a plan after discussion with Project Head.

## 5.1 Green practices Audit

- → Plant as a gift As a kind gesture, the guests visiting the premise can be asked to plant a small plant on the premise itself and they can be even given plants/bouquets from the flowers of the plants on the premise as a gift.
- ➡ Environmental awareness There can be various artworks on the compound wall giving the message of saving the environment through the joint efforts of the students and staff thereby making the student socially and environmentally responsible citizens.

#### 5.2 Waste Audit

- Signages Messages about avoiding wastage should be placed at appropriate locations.
- Include better plastic/ E-waste management measures The Institute can celebrate one day of every month as a 'Plastic/ E-waste awareness day' The stakeholders (Students and staff members) can be asked to bring plastic/ E-waste which can be further given to an NGO for recycling or better purpose.
- → Organic compost pit maintenance methodology The Institute can recheck the current methodology as it can yield better results in terms o quantity if it is well maintained with the following strategies:
  - The sanitary pad incineration dust can be sent to the compost pit
  - There should be a balance of brown and green waste material
  - Shred the materials before adding them to pit
  - Add twigs and stir occasionally
  - Add water in less quantity to avoid the smell
  - Keep ample air circulation to avoid the smell
  - Regular monitoring and maintenance.

## 5.3 Water Audit

- Water flow stopper The water flow stopper should be installed to avoid overflow and smart use of the system. Install water-saving showerheads or flow restrictors. No leakage anywhere on-premises. Water lawn only when it needs it.
- Rain water bunds There should be landscape beautification project undertaken to appropriate channelize the rain water through bunds and similar facilities.

## 5.4 Health and Hygiene Audit

- → Pest control program The Institute should practice pest control programs with appropriate sanitation facilities through an appropriate agency.
- ⇒ **Signboards** The Institute should have multiple signboards about 'No smoking' and 'Healthy premises' at every nook and corner of the Institute.
- Compound wall − The compound wall should have awareness messages about 'No Smoking' and 'No Tobacco'

#### Compilation

The study is based on the data collected, analysed, rechecked, and confirmed through multiple modes. For the quality study, some standards/ notes have been referred to. These are listed and noted below. However, no direct references have been used anywhere. These are used as a base to analyse and study the data collected.

- Uniform Plumbing Code India, 2008
- □ IGBC Green Existing Buildings Operation & Maintenance (O&M) Rating system, Pilot version, Abridged Reference Guide, April 2013
- □ IGBC Green Landscape Rating system, March 2013
- ⇒ BOMA Canada Waste Auditing Guide, Best Environmental Standards, BOMA BEST Canada
- Used only for understanding Universal design Universal Accessibility Guidelines for Pedestrian, Non-motorized vehicle and Public Transport Infrastructure Report guidelines by Samarthyam (National center for Accessible Environments) an initiative supported by Shakti Sustainable Energy Foundation and www.umassd.edu
- The city of Cheyenne, Streetscape/ Urban Design elements Wyoming Planning Association, Gillette, Wyoming, United S

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Ref: GA/BVBDC/CS/22-23/01 Date: 22 April, 2023

#### **CERTIFICATE**

This is to certify that we have conducted the Green Audit at Amareshwar Arts and Commerce Degree College, Aurad(B), for the year 2018-19 to 2022-23. The College has implemented several environmentally sustainable practices:

- 1. Adoption of Green Landscaping and Maintenance of a Biodiversity-Rich Campus.
- 2. Implementation of Solid and Liquid Waste Management Techniques.
- 3. Promotion of Rainwater Harvesting and Water Conservation Methods.
- 4. Regular Environmental Awareness Programs for Students and Faculty.
- 5. Installation of Eco-Friendly Infrastructure and Green Energy Systems.

We commend the Management, Faculty Members, and Students for their active participation and dedication towards maintaining a sustainable and eco-friendly campus.

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