

# ENVIRONMENT AUDIT

STUDY PERIOD (ONE YEAR) 2021 - 2022

Sustainability study  
**RENEWAL AUDIT REPORT**

Studied for  
Bharatiya Shikshan Prasarak Sanstha`s  
**Kholeshwar Mahavidyalaya**

Parli Road, Ambajogai  
Taluka. Ambajogai Dist. Beed 431517

Studied in the capacity of  
An accredited & Certified Green Building Professional



Studied by

**Greenenvia**  
Solutions

Valid till **January 2024**

# Disclaimer

The Audit Team has prepared this report for the **Bharatiya Shikshan Prasarak Sanstha`s Kholeshwar Mahavidyalaya** located at Parli Road, Ambajogai Taluka, Ambajogai Dist. Beed 431517 based on input data submitted by the College 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 College. 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.

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The Report is prepared by the Team of Greenvio Solutions under their brand and department – Sustainable Academe as Consultancy firm with the Project Head - Ar. Nahida Shaikh who has completed audits of multiple Institutes including Technical, State University, Private University and Single Faculty Colleges for a total of more than 45 lakhs+ sq. ft. of Built-up area audited till date Pan India as an Accredited and Certified Green Building Professional-Architect. Green Building consultancy is her forte and she is one of the most sought after names when it comes to providing excellent quality services within the stipulated time frame.

The Study is conducted in capacity of Accredited & Certified Green Building Professional with extensive experience.

## Greenvio Solutions

*Developing Healthy and Sustainable Environments*

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## Acknowledgement

The Audit Assessment Team thanks the **Bharatiya Shikshan Prasarak Sanstha's Kholeswar Mahavidyalaya, Maharashtra** for assigning this important work of Environment Audit. We appreciate the cooperation extended to our team during the entire process.

Our special thanks are due to **Dr. Surendraji Alurkar Sir**, President; **Shri. Nitinji Shete Sir**, Secretary; **Shri. Chandrakantji Mule Sir**, Joint Secretary and everyone from the Management.

Our heartfelt thanks to Chairperson of the entire process **Dr. Mukund Devarshi Sir, Principal** for his valuable inputs.

We are also thankful to **College's Task force the faculty members** who have collected data required **Prof. Rahul Chavan**, Assistant Professor for the inventory and data collection.

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

### **Sustainable Academe**

Brand of Greenvio Solutions, Palghar District, Maharashtra- 401208

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RENEWAL REPORT

# 1. Introduction

The College is run by Bhartiya Shikshan Prasarak Sanstha, Ambajogai established on 28 June 1951. The Sanstha has rich tradition of Quality education of 60 years. The college was started by the Sanstha in June 1972 and it has created a good tradition of quality education in the course of 51 years of its existence.

The college offers a number of Undergraduate; Post graduate courses in Arts, Science and Commerce faculties and UGC sponsored Career Oriented Courses. The objectives of the College are documented as follows:

- To make available various courses at UG and PG level for the students.
- To Equip The Students For Global Competency By Providing Them With Knowledge & Necessary Skills.
- To cultivate moral values among the students this for us includes Human rights, Social justice, secularism, democracy etc.
- To develop all-round personality of the students by providing proper facilities and suitable healthy atmosphere.
- To create awareness of modern technology among the students.
- To make available various skill-oriented courses to students so that they will get the job or become self-employed.
- To contribute in social awakening and social change through education.

## 1.2 Populace analysis for Academic year 2021-22

### 1.2.1 Students data

The student data (shared by the College) shows there were a total of **385 Boys and 440 Girls** students thus **a total of 825 students** in the premises.

### 1.2.2 Staff data

The staff data shows the premises had a total of **62** Staff Members.

### 1.3 Total College Area & College Building Spread Area

The **total site area is 1.7 Acres**, a new building is under construction; the site is designed for a total of 887 footfalls.

### 1.4 Timeline of activities for Green Building Study Audit

- ➔ Discussion with the College
- ➔ Allotment and Initiation by the College
- ➔ Process discussion with team
- ➔ Data submitted by College
- ➔ Submission of the Report

### 1.5 MoU's and Collaborations

The College has extended its educational connect by being associated with reputed Colleges. The details of the recent collaborations are documented below.

- ➔ Yashwantrao Chavan College, Ambajogai
- ➔ Arts & Commerce Mahila Mahavidyalaya, Ambajogai
- ➔ Vasundhara Mahavidyalaya, Ghatnandur
- ➔ Panditguru Pardikar Mahavidyalaya, Sirsala
- ➔ Swami Ramanandteerth Mahavidyalaya, Ambajogai.

## 2. Audit inferences 2021-22

As the College had undergone a renewal for the Academic year 2021-22, a data collection process for verification purposes were asked to be submitted. The report has been prepared based on the inputs provided for immediate action for improvement in this subject.

### 2.1 Positive points that are implemented as per previous Report

There has been an increase in the number of environmental related awareness campaign (events) which has helped in student sensitization and communal awareness.

Similarly, efforts have been made to increase and refill the existing fire extinguishers for 'Fire and Life safety'

### 2.2 Implementations proposed for this year

The following points are listed as value addition to the existing premises, are should be considered as **first priority** for implementation under section wise study. These have to be **implemented in the next 2 years of the submission of the Report.** Owing to the excellent practices adopted at present, the numbers of recommendations are less for this section.

#### 2.2.1 Site beautification

- **Additional facilities for birds** - There can be provision for drinking water and food facility for birds visiting the College premise.
- **Garden development** - The roofs of the buildings should be turned into **Green roofs** (By introducing terrace or vertical gardens) or **Cool roofs** (By painting the same with Cooltop material for solar reflectivity).

#### 2.2.2 Heat island reduction

**Cool rooftops** - It is suggested that the College gets the Terrace roofs painted with Cooltop as it will help reduce the temperature of the spaces.

### 2.2.3 Universally accessible premises

- **Universal Toilet** - There should be a minimum of 1 toilet for the specially-abled people as per guidelines prescribed by the National Building Code 2016 with size being a minimum of more than 1.5m x 1.5m
- **Design up gradation for Inclusive premises** – The following activities can be undertaken:
  - Wheelchair, Lifts in every block so that every block has its own wheelchair.
  - Include Disability Services staff/students with disabilities on planning boards and offer multiple ways to participate in programs
  - Information/materials provided in multiple forms (Standard, electronic, large print, Braille)
  - Class outlines/notes are available for all students on accessible websites.

### 2.2.4 Pollution Control

**Bicycles as a gift** - As an appreciation gesture maybe the student's toppers/ staff best performers can be awarded a bicycle occasionally.

### 2.2.5 Life safety

- One fire extinguisher in every space which has an air conditioner.
- Every laboratory space should have both sand bucket and fire extinguisher.
- Every space which has a gas cylinder or combustible equipment should have a provision for additional safety including the barricade around the gas cylinders, appropriate safety boards.
- Fire safety practices such as signages, Fire hydrant cabinets, sand buckets.



### 3. Inferences as Consolidated study

These are to be considered as ***second priority*** for implementation, once the section wise recommendations are implemented. The following recommendations should be ***implemented within the next 2.5 years from the date of the Report submission.***

- **Articles and Documentation** – The premises has multiple features which add to the beauty of the nature and improve the environment in the premises, it is thus suggested to have an article written every month as guided by the Team based on the MoU.
- **Scope for executing multiple dense forests (Green zones) in the premises based on the prototype** – This can be executed after the Carbon sequestration study has been completed. The Miyawaki technique can be undertaken for this purpose.
- **Determination of Plastic (orange) zones** – The study and execution can be undertaken through a pilot project where the waste plastic can be collected through areas within 5 km of the premises and a product can be developed.
- **Social welfare** – The College can undertake an activity under the NSS/ NCC to prepare a prototype of Solar panels at a low-cost for the rural areas/ villages that are adopted under rural development programmes.



Environmental awareness campaign by naming the plantations in the premises



Water management practices in the College

## 4. References

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.

### ➔ National references

- ⇒ 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

### ➔ International references

- ⇒ 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](http://www.umassd.edu)
- ⇒ The city of Cheyenne, Streetscape/ Urban Design elements - Wyoming Planning Association, Gillette, Wyoming, United States
- ⇒ Streetscape elements – Chapter 6 on San Francisco
- ⇒ American lung association <https://www.lung.org/>
- ⇒ Study related to air pollution <https://www.airgle.com/>
- ⇒ Exploring the light pollution <https://education.nationalgeographic.org/>
- ⇒ Accessibility study <https://www.washington.edu/>

