

## Green Education Campus Certification

Geotek Global Certification Pvt. Ltd.

hereby certify that the organization

**Dr. Babasaheb Ambedkar Marathwada University**

Address : Aurangabad 431004, Maharashtra, India

has implemented and maintains a **Green Education Campus** for

**Scope :**

**To Impart Quality Vocational and Scientific Education through basic and Applied Research to improve the Quality and Value of Human irrespective of Gender, Caste, Nationality and Religion alongside providing Multidisciplinary and Multidimensional Higher Education to the Incumbent Students in Faculty of Science & Technology, Faculty of Commerce & Management, Faculty of Humanities and Faculty of Interdisciplinary Studies.**

An audit was performed and proof has been furnished that the management system fulfils the requirements of international guideline detailed below ...

**Scheme : Green Education Campus**

**Certificate No. : 21.GGCS.IN.GEC090202**

**Certification Date : 03<sup>rd</sup> September 2021**

**Cert. Expiry Date : 02<sup>nd</sup> September 2024**



Reg. No. IN.EMS20.0512



A handwritten signature in black ink, appearing to read 'S. S. S.', is written over a circular stamp.

**Chief Executive Officer**

Geotek Global Certification Pvt. Ltd.

102, Raj Legacy, Near Bramhand Phase 5, Off. GB Road,  
Thane (West), Pin 400607, Maharashtra, India



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51, Goldhill Plaza, #07-10/11, Singapore 308900

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[www.geotek.co.in](http://www.geotek.co.in) and accreditation body's website : [www.imacb.com](http://www.imacb.com)

## Green Audit Report

Dr. Babasaheb Ambedkar Marathwada University, Aurangabad (MS)

Date of Report: September 02, 2021

Next Audit Due On: September 01, 2024

## Introduction

This Green Audit report aims to evaluate and document the environmental practices and sustainability initiatives undertaken by Dr. Babasaheb Ambedkar Marathwada University (BAMU), Aurangabad (MS). The audit encompasses an assessment of green coverage, fruit plantations, water conservation sites, rainwater recharge, solar-driven borewells, the use of energy-efficient lighting, and air quality on campus. This report provides detailed insights into the university's efforts towards creating a sustainable and eco-friendly campus.



## 1. Green Coverage in University Campus

Dr. Babasaheb Ambedkar Marathwada University spans approximately 720 acres, with a substantial portion dedicated to green spaces. These green areas include gardens, lawns, and naturally preserved wooded regions, contributing to the ecological balance and aesthetic appeal of the campus. The university has approximately **300 acres of land covered with a variety of flora, including trees, shrubs, and grasslands**. The campus has a high density of trees, with an estimated **20,000 trees of various species, providing shade, oxygen, and habitat for wildlife**. The green areas are home to a **diverse range of plant species, fostering biodiversity and contributing to the ecological health of the region**. The green spaces are maintained through **regular landscaping, watering, and pest control practices** to ensure their health and sustainability. The green coverage plays a significant role in **carbon sequestration, reducing the university's carbon footprint**. These areas provide a **serene environment** for recreation and relaxation, enhancing the well-being of students and staff.



## 2. Fruit Plantations (Mango, Custard Apple, Sapota)

The university has established fruit plantations to promote sustainability, biodiversity, and self-sufficiency. The plantations include Mango, Custard Apple, and Sapota trees. Approximately **500 mango trees** have been planted across the campus, known for their shade and fruit production. There are around **300 custard apple trees**, adding to the diversity and providing seasonal fruits. The campus hosts about **200 sapota trees**, known for their resilience and fruit yield. The fruit plantations **support biodiversity and provide fresh fruits (organically ripened) for consumption**. The fruits are either sold in local consumer base/ used in university dining services, and the plantations serve as practical learning sites in some cases.



### 3. Water Conservation Sites in Campus

Water conservation is a critical component of BAMU's sustainability strategy. The university has implemented various water conservation projects to optimize water use and ensure a sustainable supply. The campus has **multiple artificial ponds and catchment reservoirs** that collect rainwater and provide water for irrigation and landscaping. **Dedicated MOUs have been established towards water conservation and management and three collaborative projects** have been undertaken in Campus. **Efficient drip irrigation systems are installed** in gardens and plantations, reducing water wastage and ensuring plants receive adequate moisture. **The water conservation sites significantly reduce the campus's water footprint and promote efficient water management.** These sites provide real-world examples for students studying water management and environmental conservation. To address the challenge of depleting groundwater levels, BAMU has implemented rainwater recharge systems for its borewells. These systems are designed to collect rainwater, channelling it back into the ground. The borewells are equipped with rainwater collection systems that direct rainwater into underground aquifers. Approximately all borewells on campus benefit from rainwater recharge, ensuring a sustainable water supply. Most importantly, there are 04 solar driven borewells where dedicated efforts have been adopted for recharge of borewells through rainwater. The recharge systems help maintain groundwater levels, reducing the dependency on external water sources. The University is committed towards sustainable water management and conservation.



### 4. Rain Water Harvesting at Various Points in Campus

The university has implemented rainwater harvesting systems at various locations across the campus to capture and utilize rainwater for multiple purposes, including irrigation and groundwater recharge. **Roofs of buildings, pavements, and open areas are used to collect rainwater. The university has installed storage tanks with a combined capacity of 1 million liters to store harvested rainwater. The collected rainwater is used for irrigating gardens, and other non-potable applications.** Rainwater harvesting reduces reliance on municipal water supplies and promotes water sustainability. The use of harvested rainwater helps in lowering water bills and reducing environmental impact. **A central canaling route** provides water provision at key garden points and recharge water surface, indicates a significant part of water consciousness in the campus.



### 5. Solar Driven Borewells

To promote renewable energy use, BAMU has installed 04 solar-driven borewells in campus and 01 solar-driven borewell in Sub campus, Osmanabad. These systems harness solar power to pump water, reducing energy consumption and environmental impact. The borewells are equipped with solar panels that convert sunlight into electricity to power water pumps. These solar-driven systems are designed for maximum efficiency, providing a reliable water supply while reducing energy costs. Solar-driven borewells significantly lower the university's energy consumption and greenhouse gas emissions. These systems provide a consistent and eco-friendly water source for the campus.



## 6. Use of SMD Lights, and Rooftop Solar Plants throughout Campus

In an effort to improve energy efficiency, the university has replaced traditional lighting with **Surface Mounted Device (SMD) LED lights** across the campus. These lights are known for their low energy consumption and long lifespan. SMD LED lights have been installed in classrooms, offices, laboratories, and outdoor areas. These lights consume less power compared to conventional lighting, resulting in significant energy savings. The use of SMD LED lights has led to a reduction in the campus's overall energy consumption and operational costs. SMD LED lights provide better illumination and are more durable, reducing maintenance costs and enhancing safety. The University has generated approximately **2100 Megawatt power through rooftop solar** installations through last 5 years, which is quite significant. Installation of **solar water distillation plant** at certain points is another good practice in the campus.





## 7. Air Quality Index of the Campus

Monitoring air quality is essential to ensure a healthy environment for the campus community. The Air Quality Index (AQI) provides a measure of the pollution levels and air quality on campus. AQI Measurement was carried out at six different sites of the University through a period of 15 days to measure particulate matter (PM2.5 and PM10), nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), and carbon monoxide (CO). Average measurement reports indicate that the AQI on campus is within the "Good" to "Moderate" range, reflecting relatively low levels of air pollution. Maintaining a good AQI ensures a healthy environment for students and staff, reducing the risk of respiratory and cardiovascular issues. University should take up policy/institution mechanism towards regular monitoring towards managing pollution sources and raise awareness about air quality issues.

### Concluding Remarks:

Dr. Babasaheb Ambedkar Marathwada University, Aurangabad has demonstrated a strong commitment to environmental sustainability through its various green initiatives. The campus serves as green lungs of the city and a boon residents of the city who are regular visitors at campus for morning/evening walk. The green coverage, fruit plantations, water conservation efforts, and renewable energy use highlight the university's proactive approach to creating an eco-friendly campus. Continuous monitoring and improvement of these practices will further enhance the university's sustainability profile and provide a healthier, more sustainable environment for its community.

### Recommendations:

1. Expand Green Initiatives: Continue to increase green coverage and biodiversity through additional plantations and conservation projects.
2. Enhance Water Management: Implement more advanced water conservation and rainwater harvesting technologies to further reduce water use and recharge aquifers.
3. Promote Renewable Energy: Expand the use of solar and other renewable energy sources across the campus.



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Ref: ISO/GGCPL/22-24/09

Date: 03.09.2022

M/s

Dr. Babasaheb Ambedkar Marathwada University,  
Aurangabad, Maharashtra, India

Sub.: **Continuation of Green Education Campus Certification.**

Dear Sir,

We are pleased to inform you that upon verification of reports of First Surveillance of Green Education Campus Certification of your Organization conducted by us on 01.09.2022, your corrective action plan and based on the acceptance of Certification Decision Committee we hereby confirm that your Certificate of Compliance bearing # 22.GGCS.IN.GEC090202 issued on 03rd September 2021 will stand continued till : **02nd September 2023.**

We take this opportunity to congratulate you and your team for all efforts in effectively implementing and maintaining the documented system.

Thanking you and assuring to provide best of our services at all times.

Your next audit shall be conducted on or before September -23.

Thanks & warm regards.

  
R.M. Jain  
Lead Auditor






4. Monitor Air Quality: University should install air quality monitoring station in campus to maintain a healthy campus environment.

**Specific Recommendation:**

**The University should implement and propagate concrete waste management practice throughout the campus.**

**Food waste audit at hostels and canteens/ lunch home must be done.**



R. M. Jain  
Lead Auditor





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Ref: ISO/GGCPL/22-24/11

Date: 02.09.2023

M/s  
Dr. Babasaheb Ambedkar Marathwada University,  
Aurangabad, Maharashtra, India

Sub.: **Continuation of Green Education Campus Certification.**

Dear Sir,

We are pleased to inform you that upon verification of reports of Second Surveillance of Green Education Campus Certification of your Organization conducted by us on 01.09.2023, your corrective action plan and based on the acceptance of Certification Decision Committee we hereby confirm that your Certificate of Compliance bearing # 22.GGCS.IN.GEC090202 issued on 03rd September 2021 will stand continued till : **02nd September 2024.**

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Thanking you and assuring to provide best of our services at all times.

Your next Recertification audit shall be conducted on or before 3<sup>rd</sup> September-2024

Thanks & warm regards.

R.M.Jain  
Lead Auditor

