

# GREEN AUDIT REPORT (2020-2021)



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AMITY UNIVERSITY

Established vide Government of Madhya Pradesh Act No. 27 of 2010

Dated: 28/06/2021

# Note sheet

This is in reference to the office order Ref. No. AUMP/Letter/Audit/02/2021 dated 21/06/2021 issued by the Registrar, Amity University Madhya Pradesh.

I am hereby submitting the Green Audit Report for the period 2020-21 for your kind reference and perusal.

Prof. (Dr.) Kuldip Dwivedi Chairman

Pro Vice Chancellor

Hon'ble Vice Chancellor



AMITY UNIVERSITY

Established vide Government of Madhya Pradesh Act No. 27 of 2010

# Ref. No. AUMP/Letter/Audit/03/2021

Dated: 21/06/2021

# Office Order

 An audit team comprising of the following staff members of Amity University Madhya Pradesh (AUMP) is hereby constituted for the internal green audit of the university for 2020-21.

| S.No | Name                       | Designation                                       |
|------|----------------------------|---|
| 1.   | Chairman                   | HOI, Department of Environmental Science (EVS)    |
|      | Prof. (Dr.) Kuldip Dwivedi |   |
| 2.   | Member                     | Assistant Professor, Department of Environmental  |
|      | Dr. Rwitabrata Mallick     | Science   |
| 3.   | Member                     | Assistant Professor, Amity School of Architecture |
|      | Arch. Aashish Sharma       | and Planning (ASAP)                               |
| 4.   | Member Secretary           | Assistant Director Administration, AUMP           |
|      | Mr. Umesh Kumar Sharma     |   |

2. The audit team is requested to evaluate that the development of the campus foster to the concept of environmental sustainability and green campus. The audit report is to be submitted latest by 28/06/2021

3. Issued by the order of the Hon'ble Vice Chancellor

Aaharajpu Gwalio

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## Preface

Concern about environmental degradation and realization of values of environment are logical consequences of scholarly research, teaching and learning process. In its pursuit for improving environmental quality and to maintain a pristine environment for the future generation of students, Amity University Madhya Pradesh, Gwalior has made a self-inquiry on environmental quality of the campus with the following main objectives:

- The purpose of the report is to make sure that the practices followed in the campus are healthy and environment friendly.
- The specific objectives of the audit are to evaluate the compliance with the applicable regulations, policies and standards to ensure that the development of the campus foster to the concept of environmental sustainability and green campus.

#### Introduction

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Green report can be defined as systematic identification, quantification, recording, reporting and analysis of components of environmental diversity. The report aims to analyse environmental practices within and outside the university campus, which will have an impact on the eco-friendly ambience. It was initiated with the motive of inspecting the work conducted within the organizations whose exercises can cause risk to the health of inhabitants and the environment. Through Green Report, one gets a direction as how to improve the condition of environment and there are various factors that have determined the growth of carrying out Green Report.

An audit team comprising of the following staff members of Amity University Madhya Pradesh (AUMP) is hereby constituted for the internal green audit of the university for 2020-21.

| S.No | Name                                       | Designation  |  |  |  |
|------|--|--|--|--|--|
| 1.   | Chairman<br>Prof. (Dr.) Kuldip Dwivedi     | HOI, Department of Environmental Science (EVS)                           |  |  |  |
| 2.   | Member<br>Dr. Rwitabrata Mallick           | Assistant Professor, Department of Environmental Science                 |  |  |  |
| 3.   | Member<br>Arch. Aashish Sharma             | Assistant Professor, Amity School of Architecture<br>and Planning (ASAP) |  |  |  |
| 4.   | Member Secretary<br>Mr. Umesh Kumar Sharma | Assistant Director Administration, AUMP                                  |  |  |  |

Prof. (Dr.) Kuldip Dwivedi

Arch. Aashish Sharma

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Dr. Rwitabrata Mallick

Mr. Umesh Kumar Sharma

#### Purpose of the Study

The main purpose of the green audit is to promote the Environment Management and Conservation in the University Campus. The purpose of the audit is to identify, quantify, describe and prioritize framework of Environment Sustainability in compliance with the applicable regulations, policies and standards. The main purpose of Green Report are:

- To inculcate awareness among the students to real concerns of environment and its sustainability.
- To promote the concept of environmental conservation so as to minimize the extent of exploitation of resource use inside the campus.
- To ensure that the development of the campus foster to the concept of environmental sustainability and green campus.
- To establish a baseline data to assess future sustainability by avoiding the interruptions in environment that are more difficult to handle and their corrections requiring high cost.
- To bring out a status report on environmental compliance.

#### Water Management

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The University is presently dependent on Borewells which are presently 10 in numbers. The water is hard with average prevailing TDS 1800. However, soft water plant with capacity of 30 KL of ION EXCHANGE is installed in the Campus to improve the quality of water.

In addition, for drinking water 24 Nos of 50 litre capacity RO are fitted in the entire campus. They are regularly maintained under AMC. In addition to above application for water supply has been forwarded to Nagar Nigam, Gwalior for supply of water with overall cost for laying dedicated pipelines amounting to Rs 67 lakh has been deposited by the University. The work is yet to be completed.

Water is used for drinking purpose, toilets and gardening. During the survey, no loss of water is observed, neither by any leakages, nor by overflow of water from overhead tanks. The data collected from all the departments is examined and verified. Water quality is enhanced by using soft water plant of ION exchange of capacity 30 KL and ROs of 50 liter in 24 Nos are installed in the Campus to provide potable water.

### Waste Management

The university has segregated waste into three parts:

- Solid Waste
- Liquid Waste
- e-Waste

**Solid Waste:** The waste is generated by all sorts of routine activities carried out in the University that includes paper, plastics, glass, metals, foods, etc. The waste is segregated at each level and source. The administrative supervisor in each block ensures that the waste in each floor is collected at designated time intervals. The block cleaning workers in each floor collect, clean, segregate and compile the waste in the dustbins (Green and Blue) provided at each floor. The floor dustbins are emptied in movable containers/dustbins provided for each block and is taken to the dumping yard provided by the University.

The University has contacted an authorized vendor, who collects the waste from the designated place, segregates them, recycles them and disposes them at the landfills authorized by the government.

Liquid Waste: Liquid wastes generated by the university are of two types:

- 1. Sewage waste
- 2. Laboratory, Laundry and cafeteria effluent waste

The above waste is treated through Sewage Treatment Plants (STPs) and Effluent Treatment Plants (ETPs) and the water is used for horticulture and flushing in toilets.

e-Waste Management: Flip flops, memory chips, motherboard, compact discs, cartridges etc. generated by electronic equipment such as Computers, Radio, TV, Phones, Printers, Fax and Photocopy machines are recycled properly. Instead of buying a new machine buyback option is taken for technology upgradation.

The e-waste generated from hardware which cannot be reused or recycled is being disposed off centrally through government authorized vendors.

This indicator addresses waste production and disposal of different wastes like paper, food, plastic, biodegradable, construction, glass, dust etc. and recycling. Furthermore, solid waste often includes wasted material resources that could otherwise be processed through recycling, repair, and reuse. Solid waste generation and management is a burning issue. Unscientific handling of solid waste can create threats to everyone. The survey focused on volume, type and current management practice of solid waste generated in the campus.

## **Green Area Management**

This includes the plants, greenery and sustainability of the campus to ensure that the buildings conform to green standards. This also helps in ensuring that the Environmental Policy is enacted, enforced and reviewed using various environmental awareness programmes.

The University has installed Solar Power Plant 307 K.watt capacity. So as to save energy.

#### **Eco-Club** at the Campus

Eco-club of Amity University Madhya Pradesh, Gwalior has been constituted for spreading awareness among students, for generating knowledge about the environment and towards making clean and green campus. Eco-club is continuously organizing World Environment Day, tree plantation, educational tour, special lectures and awareness programmes every year.

- Department of Environmental Science and Eco-club members joint hand in organizing first International Conference on Sustainable Development and Climate Change on 10-11 February 2020.
- Many Eco-Club Members Participated in Youth Dialogue Forum to express their views and opinions on Sustainable Development and Climate Change.
- Eco-Club AUMP and Department of Environmental Science made a short documentary about the significance of Earth Day. Celebrating 50 years is just a number but the believe should be in execution, determination and affection towards conserving mother earth. The programme was titled: "Climate Action - Celebrating 50 Years of Earth Day". Organizing people were Dr. Kuldip Dwivedi, Prof. & Head EVS, Dr. Swapnil Rai, Associate Professor, Dr. Rwitabrata Mallick, Assistant Professor, Dr. Nidhi Shukla, Assistant Professor. Mode of communication was online through Microsoft Team
- Eco-Club, AUMP organized elocution competition on the theme of Nature, Environment and Society, on 19<sup>th</sup> September 2020 on the occasion of 10<sup>th</sup> Raising Day of Amity University Madhya Pradesh.

Environmental awareness initiatives undertaken by the university in the ten years of its existence are substantial. The installation of solar panels as renewable/alternative source of energy and two units of STPs for waste management is noteworthy. Besides, environmental awareness programmes initiated by the administration/departments shows how the campus is going green. Few recommendations are added like installation of water harvesting system and more efficient waste management using eco-friendly and scientific techniques. This may lead to the prosperous future in context of Green Campus, thus sustainable environment and community development.

| Year   | 2017  | 2018  | 2019  | 2020        | 2021  |
|--|-------|-------|-------|-------------|-------|
| Full-grown trees                             | 957   | 1125  | 1322  | 1525        | 1727  |
| Semi-grown trees                             | 667   | 980   | 1083  | 1266        | 1448  |
| Bushes (including floriculture plants)       | 422   | 2490  | 2169  | 2638        | 3106  |
| Lawn   | 60000 | 75000 | 80000 | 80000       | 80000 |
|  |       |       |       |             |       |
| Total no. of incandescent lamps used earlier | 110   | 150   | 200   | 250         | 0     |
| LED tube lights                              | 0     | 0     | 0     | 60          | 900   |
| Solar System                                 | 0     | 0     | 0     | 307<br>KW   | 307   |
| Rain water Harvesting Pits                   | 0     | 0     | 10    | 10          | 10    |
| compostable solid waste                      | 2200  | 3000  | 4000  | 4500<br>Kgs | 5500  |
| non-compostable waste                        | 650   | 700   | 850   | 900<br>Kgs  | 1200  |
| vermicompost                                 | 800   | 800   | 800   | 800         | 1200  |
| Four wheelers                                | 40    | 65    | 68    | 78          | 88    |
| Two wheelers                                 | 159   | 220   | 219   | 239         | 259   |
| Physical Structure                           |       |       |       |             |       |
| Class rooms                                  | 21    | 70    | 70    | 70          | 70    |
| Staff rooms                                  | 4     | 12    | 12    | 12          | 12    |
| Laboratories                                 | 10    | 50    | 50    | 50          | 50    |
| Conference halls                             | 1     | 4     | 4     | 4           | 4     |
| Libraries                                    | 1     | 4     | 4     | 4           | 4     |
| Administrative Office                        | 1     | 13    | 13    | 13          | 13    |

**GREEN REPORT DETAILS** 



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Tree Plantation



Landscaping



Lush Green Campus (A Block)