AWANEESH NEMA & ASSOCIATES

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Certificate of Environmental Audit

This Certificate is Presented to **St. Aloysius College**, Jabalpur for successfully completing an Environmental Audit for the academic year 2019-2020, demonstrating a commitment to environmental stewardship, sustainability, and effective environmental management practices.

Details of Audit:

- **Audit Period:** 2019-2020
- **Location:** St. Aloysius College, 1, Ahilya Bai Marg, Pentinaka Chowk, Sadar, Jabalpur, Madhya Pradesh, India 482001
- **Date of Audit:** 26/11/2020

Key Highlights:

- Implementation of solid waste management through vermicomposting, producing 15 kg of compost from 50 kg of organic waste.
- Successful reduction of plastic use on campus, including the transition from plastic to paper in various applications.
- Promotion of cycling among faculty members to reduce carbon footprint and encourage sustainable transportation.
- Recognition by Nagar Nigam, Jabalpur with the "Swachhta Award" for being the cleanest college in the grant-in-aid college category.

Recommendations:

- Enhance waste segregation and increase the capacity for vermicomposting.
- Continue to reduce plastic usage and explore alternatives for more sustainable materials.
- Expand initiatives like 'Cycle Day' to include students and other staff members.

Commendations: The audit team commends St. Aloysius College for its proactive approach towards reducing environmental impact and its commitment to fostering a sustainable campus environment.

Certificate Issued by:

Awaneesh Nema & Associates

Date of Issue: 15-Dec-2020

Place of Issue: Jabalpur, Madhya Pradesh

ST. ALOYSIUS' COLLEGE
(AUTONOMOUS), JABALPUR (M.P.)
Reaccredited 'A+' Grade by NAAC (CGPA 3.68/4.00)
College with Potential for Excellence (CPE) by UGC
DST-FIST Supported Star Scheme by DBT

Environment Audit Report

2019-20

The report of Environmental Audit of St. Aloysius College for the academic year 2019-20 was submitted by a team of three members

Dr. Laxmikant Pandey (Head, Biotechnology)

Dr. Priyanka Sinha (Head, Zoology)

Dr. Smarika Lawrence (Head, Chemistry)

The report presents various environmental initiatives and protocols that the college has implemented. Areas of focus include water conductivity, providing insights into water purity and quality; air quality, which assesses the presence of pollutants and the general health of the indoor and outdoor campus environment; microbial evaluations, which check for microorganisms that could affect health; and the processes involved in the management and disposal of hazardous waste from college laboratories.

The report also includes the college adherence to environmental safety standards and maintains a commitment to creating a sustainable and eco-friendly academic setting. The detailed findings from these assessments are comprehensively outlined in the attached report.

This Audit is submitted to Awaneesh Nema and Associates for Audit.

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ENVIRONMENTAL AUDIT REPORT 2019-20

Due to rapid environmental degradation at local, regional and global level a crisis in inevitable. Now a days there is a new issue arising known as "Environmental poverty". Stabilization of human population, adoption of environmentally sound and sustainable technologies, reforestation and ecological restoration are crucial elements in creating an equitable and sustainable future for all humans in harmony with nature and natural resources. Environmental audit reflects various kinds of evaluations intended to identify environmental conformity and management system, accomplishing gaps, along with related corrective actions. It aims to analyze environmental practices within and outside of the concerned sites, which will have an impact on the eco-friendly ambience. We academic leaders must ignite and support mobilization of internal and external resources and knowledge so that their institutions respond to environmental challenges in effective manner. As an Institution of higher learning and research, St Aloysius College is deeply concerned and categorically believes that there is an urgent need to deal with these fundamental problems and overturn the trends of environment degradation.

This report is based on the approaches and interventions done on part of the college to address the environmental concerns of the college campus. The current environmental audit represents the initial stage in our efforts to build environmental sustainability on the campus. In the search for improving environmental quality and to maintain a perfect environment for the future generations of students, St. Aloysius College has made a self- inquiry on environmental quality of the campus and working on following areas:

1. **Solid waste management (vermicomposting):**

   College has two vermicomposting pits of the size 4 ' x 3 ' feet under solid waste management. In the year 2019 - 20 college has produced 15 kg of vermicomposting by using 50 kg organic waste. The college had organized the following activities under solid waste management system:

From January 23rd to 14th March 2020 – Department of Zoology conducted a three-month Internship programme on "Vermicomposting as Sustainable Practice for Solid Waste Management in Jabalpur city".

October 17th –Department of Chemistry organized two days Skill Development Training Program on "Soil Testing Skill and its Advantages" in Jawahar Lal Nehru Krishi Vishwavidyalaya, Jabalpur for the students of Post-Graduation. Students has also visited Bio-fertilizer Plant and Pesticides Residue Analysis Unit.

2. **Reduce use of plastic**

Reducing plastic waste is important because plastic production requires an enormous amount of energy and resources. This causes carbon emissions and contributes to global warming. In our college campus, use of plastics is completely prohibited. From this year onwards in college canteen the disposable plastic cups has been replaced with paper cups. At departmental level all the file covers which were of plastic now replaced with paper only. Earlier students were using plastic covers for assignment but this year onwards this practice totally prohibited in the college. The following activities were conducted by the college to sensitize students with this issue:

July 28th – NSS Boys unit of the College painted the wall to make people aware to use dustbins at Piparia Kalan.

October 2nd – College was awarded by "Swachhta Award" as the cleanest college under grant in aid college category by Nagar Nigam, Jabalpur.

3. **Hazardous waste disposable systems in Laboratories**

Biological Waste Management:

a) **Liquids containing Biohazardous Agents:**

- Collection of liquids in leak-proof containers such as flasks or bottles.
- Liquid waste containers designed to withstand autoclaving temperatures is used when steam sterilization is utilized.

b) Solids Containing Biohazardous Agents:

- Non-sharp, solid laboratory waste (empty plastic cell culture flasks and petri dishes, agar plates, empty plastic tubes, gloves, wrappers, absorbent tissues, etc.) which may be, or is known to be, contaminated with viable biological agents should be collected in Waste plastic bags.
- For laboratories generating large volumes of agar gel in disposable petri dishes and tubes requiring sterilization, such waste is collected in specific Waste plastic in the laboratory. Autoclavable bags filled with plasticware containing agar gel tend to leak fluids during and after the sterilization process.
- Any waste that has been autoclaved in Autoclave bags at the college is double bagged, twist tied or taped shut dispose properly.

3. Chemical waste Management:

- Acid-reactive compounds (e.g., cyanides, sulphides) which liberate gaseous products when acidified is not be mixed with any inorganic acid (e.g., sulphuric or hydrochloric acid).
- Organic acids (e.g., glacial acetic acid) are segregated from inorganic acids. Generally inorganic acids are oxidizing agents while some organic acids may be either reducing agents or combustible.
- Water reactive materials (e.g., sodium) is kept away from any water source. Oxidizers (i.e., any inorganic compound that assists fire such as hydrogen peroxide, lead nitrate) is not mixed with organic materials (e.g., organic bases such as pyridine, aniline, amines, flammable solvents such as toluene, acetone) or reducing agents (e.g., water- reactive chemicals such as sodium).

4. Encouragement for use of bicycle by faculty:

Cycling can cut down on greenhouse gas emissions and global climate change. It also reduces air pollutants, noise pollution and congestion. It also reduces our ecological footprint. Cycling is a healthy, low-impact exercise that can be enjoyed by people of all ages, from young children to older adults. It is also fun, cheap and good for the environment. From this year onwards, college has started a new practice that Saturday has been named as 'Cycle Day'. It is

requested to the all the faculty members to use cycle on every Saturday. On December 11, 22 NSS students participated in Hexi Cycle Rally organized by Nagar Nigam, Jabalpur.

Others

March 5th– Faculty members and PG students of Zoology Department visited Dumna Nature Reserve for local birds' survey and biodiversity awareness programme.

June 5th – Department of Biotechnology, Boys NSS Unit and Unnat Bharat Abhiyan organized Environment Awareness Quiz on the occasion of World Environment Day. NSS Girls unit celebrated World Environment Day by administering oath to villagers to keep our environment neat and clean.

PRINCIPAL
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