

GREEN AUDIT

STUDY PERIOD (TWO YEARS) 2022 – 2023 & 2023 - 2024

Sustainability study

AUDIT REPORT

Studied for

**St. Aloysius College
(Autonomous)**

1, Ahilya Bai Marg, Pentinaka Chowk, Sadar,
Jabalpur, Madhya Pradesh, India 482001

Studied in the capacity of

Accredited and Certified GBP



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Disclaimer

The Audit Team has prepared this report for the **St. Aloysius College (Autonomous)** located 1, Ahilya Bai Marg, Pentinaka Chowk, Sadar, Jabalpur, Madhya Pradesh, India 482001 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 internal team. 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 is 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.

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Greenvio Solutions

Developing Healthy and Sustainable Environments

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Acknowledgement

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Our special thanks are extended are due to everyone from the Management.

Our heartfelt thanks are extended to the Chairperson of the entire process **Dr. Fr. G Vazhan Arasu** (Principal) for the valuable inputs.

We are also thankful to Institute's Task force who have played a major role in data collection.

- Teaching staff member – **Dr. Siby Samuel**, IQAC Coordinator and Teachers - **Dr. Poonam Pendke, Dr. Sonali Nigum, Dr. Zarin Bakesh, Dr. Laxmikant Pandey**
- Non-teaching staff member – **Mr. Rajender Prasad and Mr. Vineeth M. Menon** (Office)
- Admin staff member – **Dr. Ben Anton Rose**, Vice-Principal; **Fr. Pradeep Rodriguez**, Administrator

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1. Introduction

1.1 About statements of the Institute

1.1.1 Vision

The Institute proposes "To qualify quality through qualitative escalation of the entire framework of the institution."

1.1.2 Mission

The Institute adheres and focuses:

- To provide for consistent quality up gradation of academic and administrative functioning of the institution
- To provide for a participative academic environment to decipher supreme quality education
- To lay a yardstick in the field of teaching-learning culture with quality enhancement
- To embark on qualitative research, training and consultancy

1.1.3 Aim

The College has formulated the following aim to achieve its mission "To facilitate use of ICT, skill-development, development of global competencies, and ultimately to make the learners enhance their potential to be of service to self and society."

1.2 Assessment of the Institute

1.2.1 Affiliations

The courses provided by the College have received their affiliation through **Rani Durgawati Vishwa Vidhyalaya**, Jabalpur, Madhya Pradesh

1.2.2 Certification

The College has received the following Certifications

- ⇒ **AISHE** – The All India Survey of Higher Education code is C-33354
- ⇒ **NIRF** – Participated and received rank in National Institutional Ranking Framework

1.2.3 Recognitions

The College has achieved the following recognitions:

- ⇒ **Autonomous Status** - The College was conferred Autonomous status by the University Grants Commission (UGC).
- ⇒ **Recognition of UGC** – The College has been recognized under section [2 \(f\) and 12\(b\) of the UGC Act, 1956](#) by University Grants Commission, New Delhi.
- ⇒ National Council for Teacher Education (NCTE), New Delhi

1.2.4 Accreditation

The College is accredited by National Assessment & Accreditation Council (NAAC).

2. Overview

2.1 Summarised Populace analysis for 2023-2024

2.1.1 Students data

The data (shared by the Institute) shows there were **5,530 students**.

2.1.2 Staff data

S. No.	Type	Male	Female	Total
1	Admin staff	03	00	03
2	Teaching staff	32	83	115
3	Non-Teaching staff	32	10	42
Total Staff Members		67	93	160

Table 1: Staff data of the Institution for 2023-2024

The staff data shows the Institute premises had **160 Staff Members**.

2.2 Summarised Populace analysis for 2022-2023

2.2.1 Students data

The data (shared by the Institute) shows there were **5,505 students**.

2.2.2 Staff data

S. No.	Type	Male	Female	Total
1	Admin staff	02	00	02
2	Teaching staff	32	83	115
3	Non-Teaching staff	30	10	40
Total Staff Members		64	93	157

Table 2: Staff data of the Institution for 2022-2023

The staff data shows the Institute premises had **157 Staff Members**.

3. Research

3.1 Campus area

The **site spread over 10.52 acres of land covering 88,387 sq. ft. of built-up area.**

3.2 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.

3.3 Analysis of the Green Building Study Audit

The procedure included detailed verification as follows:

- ➔ Investigation
- ➔ Technical
- ➔ Observations
- ➔ Inferences

3.4 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.

4. Investigation



Plate 1: Compost pit in the premises



Plate 2: Different coloured bins in the premises



Plate 3: Sanitary vending machine in the premises



Plate 4: Rain water harvesting tanks in the premises



Plate 5: Team working towards the data compilation

5. Documentation

5.1 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.

5.1.1 Green practices

We observed the following points during the investigation data verification of the premises.

- ⇒ **Waste management** - *All the laboratories, classrooms, and cabin corridors are having dust bins. Laboratories are having dustbins wastage.*
- ⇒ **Social awareness** - *The Institute has taken up awareness drives on various social issues for rural upliftment and regeneration in the Institute and surrounding villages.*
- ⇒ **Cleanliness Campaign** - *The Swachha Bharat Abhiyan is carried out on Institute premises as well as off-premises.*
- ⇒ **Zoology department** - *The department undertakes webinars, faculty development programs related to geospatial studies and similar topics; however the context of this study is environment based.*

5.1.2 Community development

The details of **extension initiatives** under various heads in Institute are documented below:

S. No.	Type	Since	Coordinator name
1	National Service Scheme (NSS)	1973-74	Dr. Akhilesh Dubey
2	National Cadet Corps (NCC)	1955	Dr. Sonal Rai
3	National Green Corps / Nature Club	2003	Dr. Sonali Nigam
4	Earn while you learn scheme	2004	Departmental Heads
5	Employability Skills centre / Placement Cell	2004	Dr. Chitranshi Verma
6	Neighborhood development scheme/ Institutional Social Responsibility	2019	Ms. Mala Das

Table 3: Details of the extension initiatives by the Institute

The details of the **environmental activities** conducted as part of the extension initiatives by the Institute documented below:

S. No.	Initiative	Details	Type/ Conducted by	Date
Academic year 2022-2023				
1	Department of Economics in collaboration with Kadam Foundation organized an Environment Awareness Programme	To create awareness and concern about environmental issues	Physical	14/1/ 2023
2	Department of Chemistry organized a lecture by Mr. K. L. Dubey, Senior Chemist, Udaipur Beverages Pvt Ltd on topic "Water Analysis and Water Testing" for UG and PG students.	To make the students understand role and scope of Chemistry in solving problems related to Environment	Physical	02-04-2023
3	The faculty members of Departmental of Zoology and PG students visited to Dumana Nature park Jabalpur for Environmental awareness programme	To create awareness and concern about biodiversity surrounding our environmental	Physical	1/10/23
4	Department of Botany and Microbiology organized a Bonsai Training programme	To make them aware of techniques to grow miniature plants with less soil, promoting plantation in less space and in spaces even without soil	Physical	3/9/2022
5	Department of Botany and Microbiology organized a Certificate Course in 'Water Quality Monitoring' for students of UG and PG.	To make the students understand role and scope of Microbiology in solving potable water related problems and learning Environment friendly techniques	Physical	Started from 1st December 2022
6	Mr. Agranshu Dwivedi, Manager, Jabalpur Incubation Centre (JIC) delivered a lecture on 'Hydroponics: Practices and Benefits'	To make them aware of techniques to grow plants without soil, promoting plantation in spaces even without soil	Physical	24 /1/ 2023
7	The Department of Botany and Microbiology organised an industrial visit to Mukund Biotech, Jabalpur	Students learned about producing plants by Plant Tissue Culture. Its helpful for growing endangered and rare plants	Physical	25 /2/ 2023

8	The Department of Biotechnology organised an industrial visit to "Shivshakti plant tissue culture industry, Gosalpur". Students of B.Sc III year and M.Sc. along with faculty members went for an Industrial Visit.	Students learned about propagating plants by Plant Tissue Culture. Its helpful for growing endangered and rare plants	Physical	02-04-2023
9	Department of Education organized outreach activities: "Skit based on cleanliness" and Tree plantation in the Bargi Village	To promote a quality oriented approach for the environment management.	Physical	
10	Ecofest 2023: The Department of Botany and Microbiology in association with Nature Club, organized 'Ecofest 2023' on the theme Science and Environment. During this event, Poster making competition and best out of waste competitions was organized for UG and PG students of the department.	To make them aware the role of Science in safeguarding Environment, to help them understand the concept of reduce, reuse and recycle.	Physical	21 /1/ 2023
11	The Department of Biotechnology conducted a massive 10 days robust internship for the undergraduate students of Home Science College, Jabalpur. About 58 students underwent the internship where they learnt from various techniques in the field of Biotechnology the basics of Plant Tissue Culture.	Students from other colleges also to learn about propagating plants by Plant Tissue Culture. Its helpful for growing endangered and rare plants	Physical	01-09-2023
12	Rose plantation was organized by the Department of Botany in collaboration with Nature Club. More than 180 rose plants were planted in the college campus.	With an aim of increasing greenery in the college campus, an eco-friendly move like this was taken	Physical	18/10/2022
13	On the occasion of Pollution control day, an awareness program on water pollution was organized by the Department of Botany and Microbiology in collaboration with Nature Club through posters and slogans at Gwarighat, Narmada River, Jabalpur.	Students created awareness amongst natives and visitors on water pollution. Dissminating problems of water pollution in the neighbourhood	Physical	12-03-2022
14	A two-day workshop on 'Vegetative Propagation', by Nature club and Department of Botany and Microbiology. Apart from lectures, students were also	to make the students understand the various modes of propagating different plants. Students also experienced various	Physical	23-24/2/2023

	taken for an educational tour to JNKVV Gram field and the Horticulture unit	techniques in agriculture like pollination and means of propagation		
15	Nature club organised a plantation program on the occasion of World Earth Day nearby college premises	To motivate students for plantation	Physical	22/4/2023
16	NSS unit organized tree plantation at St. Aloysius' College campus on the occasion of Environmental Day. Twenty Students and Five teachers participated. They planted 15 saplings	To motivate students for plantation	Physical	05/6/2022
17	Five students participated in One Day Swachhta Workshop at RDVV Jabalpur	to make students understand the significance of cleanliness	Physical	17/6/2022
18	NSS students celebrated NSS Day, they cleaned the college campus and motivated the other students for cleanness.	to make students understand the significance of cleanliness	Physical	24/9/2022
19	NSS students participated in Swachh Bharat and Fit India Freedom Run organised by RDVV	to make students understand the significance of cleanliness	Physical	19/10/2022
20	On the occasion of Kargil Vijay Diwas, various events organized including speech competition on cleanliness, poster making, by the NCC cadets at St. Aloysius College, Jabalpur.	to make students understand the significance of cleanliness	Physical	26/7/2022
21	158 NCC cadets from our college planted one sapling each around their neighborhood. They also spread awareness regarding the benefits of plants and trees and motivated others to plant on the occasion of Tree Plantation Pakhwara	To make everyone understand that plantations of trees are important as they improve the life and fulfil essential needs of mankind.	Physical	
22	Puneet Sagar Abhiyan- Under this, a cleanliness drive at Gwarighat was conducted by 52 NCC cadets and motivated people to keep their rivers clean	To make everyone understand importance of keeping rivers clean	Physical	
23	Department of Chemistry organized lab visit to "Pesticides Residue Analysis Laboratory" in ICAR, Directorate of Weed Science, Jabalpur for 30 students	To deliver the concept of harmful pesticide residues remaining in soil and water after use	Physical	02-02-2023

24	Four teachers and 24 Chemistry students participated in the International Conference on Plastics: Benefits to Environment, Issues, Solution, Recycling and Waste Management at Hitkarni Women College, Jabalpur, M.P and presented 3 papers and 1 poster. Ms Anam Fatima, Ms Anjali Patel, Mr. Abin Thomas and Mr. Chetan Bhatia received the 2nd prize in Poster Presentation	To deliver the concept of harmful plastic, how to use it sustainably by recycling	Physical	25-26/2/2023
25	Department of Physics organized an educational visit to Jabalpur Airport for UG and PG students. Complete information of fuel filling in the airplanes, cleaning of the fuel and its refilling was given by ATC (Air Traffic Control).	To make them aware about the fuel in use and latest happenings in the field of biofuel or other sustainable means	Physical	14/1/2023
26	Internship training on "Vermicomposting as sustainable practice for solid waste management in Jabalpur city" was organised for M.Sc IV Sem by Department of Zoology. Total 20 students enrolled for the training programme.	To make students learn the sustainable practice for solid waste management	Physical	Internship - 23/1/ 2023to 31/3/2023
27	Certificate Course in Mushroom cultivation was organized by Department of Botany and Microbiology, for UG and PG students of Life Sciences.	The students learned to use agriculture waste like husk, hay, wood shavings, etc. to grow mushroom	Physical	15/9/ 2022 to 20 /12/ 2022
28	Nature Club organised an awareness programme on sustainable farming, students were informed how the organic compost can protect and enhance the environment, which will in turn help the farmers to produce sufficient, high-quality and disease resistant crops. They were also made aware of the different steps involved in preparing organic compost.	To create awareness among students on sustainable farming specially composting	Physical	18 /1/2023
29	Competition Best out of waste 2.0 for making utility items with waste organized by ED Cell .	Recycling and reusing the valuable waste material can result in development of fantastic and usable products. to help them understand the concept of reduce, reuse and	Physical	24/9/2022

		recycle.		
30	06 chapters were published by faculty members of Department of chemistry in book entitled in 'Covid-19 Challenges and Management', Volume 1, Year 2022 and 02 faculties have edited book entitled 'Covid-19 Challenges and Management'.	Research work focussed on health and environment issues.To create awareness on Covid-19 Challenges and Management.	Physical	2022
31	Department of Chemistry organized Value Added Course-Certificate course on "Chemistry of Food: Analysis and Estimation", 31 students participated with enthusiasm and zest.	To help students learn adultration in food. Importance of Producing healthy food and agricultural products	Physical	5-19/2/2023
32	Department of Chemistry organized Two days training programme on preparation of Soap, Floor Cleaner, Liquid Hand Wash and Sanitizer and under the Star College Scheme also 124 students underwent the training.	To inculcate significance of cleanliness, students can also learn to make products like Soap, Floor Cleaner, Liquid Hand Wash and Sanitizer	Physical	6-7/9/2022, 29-30/3/2023
33	The Department of Zoology, in association with Red Ribbon Club organised an Extempore programme on "Health and Hygiene" . Total 45 participants from UG and PG participated in the programme	To inculcate significance of Health and Hygiene, clean environment healthy body	Physical	30/7/2022
34	The Department of Zoology and Red Ribbon Club, St. Aloysius College organised Road show for Aids Awareness Programme	Aids Awareness	Physical	1/12/2022
35	Students of UG and PG of Department of Zoology presented research papers in National workshop on "Basic principles of medical mycology tools and techniques", organized by Department of Zoology and Biotechnology in collaboration with Centre of Medical Mycology Fungal Disease Diagnostic Research Centre, Government Science College (Autonomous), Jabalpur	To aware students about medical significance of fungi, and liberate from the misconception that microbes are harmful	Physical	5- 9/12/2022
36	On the occasion of National Science Day, the Department of Zoology organized Guest lecture on 'Filaria' and Health Awareness	Health Awareness for girl students & female staff	Physical	Guest lecture - 27/2/2023, Movie show

	Programme for girl students & female staff members and Movie show			- 28/2/2023
37	The department of Botany and Microbiology and Department of Biotechnology organised an industrial visit to Agadyati Herbs and Food Pvt. Ltd., Jabalpur. Department of Management also organized an industrial trip to the same firm for BBA 2nd Semester students. Mr. Ambika Prasad, C.E.O. & Co-founder of this Farm gave an introduction about his firm and shared how to start a business, and gave valuable inputs on growing an organic farm.	Students learned about organic farming and organic products for better health and establishment of a start-up to a commercial level.	Physical	17 September 2022 and 5 February 2023, on 4 March 2023, respectively
38	The Department of Biotechnology organised an online expert talk on "The Genomic epidemiology of Monkey Pox Virus: A Global Concern" from 12:30 PM onwards. The speaker of the programme was Dr. Abhinendra Kumar, Research Scientist-V from National Institute of Virology, Indian Council of Medical Research, Pune.	To address Global health Concern of Monkey Pox Virus	Online	20/8/2022
39	The Nature Club organised "Disease Awareness" programme in collaboration with department of Botany and Microbiology. A survey was conducted to discuss symptoms of common deficiencies. An expert talk was also delivered by Dr. Shruti Bhargava Bajpai, a Dentist by profession. The talk was on 'Oral Hygiene'. Total 72 participants participated in this event.	The aim of the programme was to create awareness related to various acute and chronic diseases amongst students.	Online	08-06-2022
40	On the occasion of Celebration of International year of Millets, Nature club organized a quiz competition on Millets. Winners were awarded prizes.	To spread the information on millets among students. Millets are a healthy alternative to rice or wheat, they are an environmentally friendly crop. They also act as a natural barrier against soil erosion, and their short growth cycle allows for crop rotation, which helps in maintaining soil health.	Physical	18/10/2022

41	NSS unit organised Poster competition as awareness programme for Nasha Mukti. 35 students participated.	To spread awareness on Nasha Mukti	Physical	
42	Under the banner of Women Cell in collaboration with NSS unit organized Vaccination Camp. Seventy One students of the college were vaccinated.	The main objective of this Camp was to enable people who had not been vaccinated to get them vaccinated.	Physical	12-13/7/2022
43	The Women Cell organized an Awareness Programme on Sanitization. This programme was conducted for the teachers and girl students.	The objective of the programme was to impart knowledge and create awareness about health and hygiene.	Physical	12-14/10/2022
44	On the occasion of International Yoga Day, 82 NCC cadets and 70 students from NSS unit performed yoga as as per the protocol in the morning at 0700 hours.	Yoga means to move towards an experiential reality where one knows the ultimate nature of existence, the way it is made. They also inspired others to adopt yoga into their daily routine.	Physical	21/6/2022
45	Every year millions of lives are being saved because of donation of blood and blood products. For this purpose, NCC Wing along with Red Cross Society organized a Mega Blood Donation Camp donating 300 units of blood.	To sensitize students about saving life a noble cause	Physical	7/9/2022
46	On the occasion of World Aids Day 1st December, NCC Cadets participated in a Poster Activity, twenty five Cadets of Naval NCC participated.	Aids Awareness	Physical	
47	The Samarpan club visited Government School, Village Mehgava, Jabalpur sharing health and sanitation tips with little ones and listening to their stories of lockdown during covid. The students actively participated and distributed stationery and eatables to the children there. Around 75 students were benefitted from the same.	To disseminate sanitation tips among school children	Physical	23/7/2022
48	The Samarpan club as a part of regular practice visited "Little Sisters of the Poor, Rimjha", old age home. The visit gave an opportunity where the students	The club provided them with medicines along with cereals, eatable and essential items.	Physical	

	were able to spend time with the elders and were emotionally touched and blessed in their presence.			
49	The Department of Zoology organized Quiz competition on the occasion of International Tiger Day Total 35 participants of UG and PG participated in the competition.	Biodiversity conservation, To create an awareness regarding the dwindling population of the Tiger species.	Physical	29/7/2022
50	The Department of Zoology organised various competitions like T-Shirt painting, wild life sketching, wild life photography, origami, Video documentary competition on the topic endangered animals on the occasion of wild life week celebration. Total participants were 28.	To create awareness about Biodiversity conservation	Physical	7/10 to 13/10 2022.
51	The department of Botany and Microbiology celebrated 'International Microorganisms Day. Various competitions like quiz, meme, fungal photography, hashtag on agar and what do you see on ocular were conducted.	The day was celebrated with the objective to create awareness on crucial role of microbes in environment, human health, culture, economic activity, employment.	Physical	17-24/9/2022
52	The Department of Botany and Microbiology celebrated National Science Day on the theme "Global Science for Global well-being". An exhibition of products like Jams, jelly, itra, pickles and bamboo art, was organised. All these items were prepared with natural products without preservatives.	To make students aware how Science works for global well being	Physical	24-28/2/2023
53	The Nature Club organized a collage competition on the theme "Only One Earth". Students of Botany, Zoology and Industrial Microbiology participated showcasing various aspects of mother earth. The collages gave an insight on the benefits, significance and the threats to mother earth.	To sensitize students about mother earth	Physical	10-08-2022
54	Nature club publishes a quarterly newsletter "NATURE" which deals with the topics related to conservation and recent	To make students aware of conservation and recent researches in the field of	Physical	Sep-22

	researches in the field of Biosciences and environment.	Biosciences and environment		
56	Educational Excursion to Bandhavgarh National Park	create awareness among students on wild life.	Physical	19 and 20 February 2022
57	Internship on Vermicoposting	The internship project was designed on the basis of the fact that the municipal wastes; animal wastes, kitchen scrapswaste of the industries and household garbage's can be converted into environment friendly, useful and valuable product like Vermifertilizer of economic importance.	Physical	17 January to 2 February 2022
58	Eco Fest	focusing on the theme 'Science and Environment', it included poster making and waste repurposing competitions.	Physical	January 21, 2023,
59	Rose Plantation	A rose plantation was organized, focusing on the objective of creating awareness and mobilizing student engagement in environmental preservation and conservation.	Physical	24th September 2021
60	World Earth Day	Nature club organized a Collage competition on the occasion of World Earth Day focusing on the motto "Save the Planet" with the aim of creating awareness among masses about global warming and climate change.	Physical	22nd April 2022
61	Environment Day Celebration	To raise global awareness to take positive environmental action to protect nature and the planet earth. plant a sapling in small pots at their home to create a green corner. A lot of enthusiasm was seen in the students with saplings of different varieties of herbs and shrubs.	Physical	5th June 2022

62	Water Pollution Awareness:	A program, highlighting water pollution through posters and slogans, was conducted at Gwarighat, Narmada River,	Physical	December 3, 2022.
63	NSS Initiatives:	NSS Day was celebrated with a college campus clean-up	Physical	September 24, 2022.
64	Educational and Awareness Sessions:	A guest lecture on „Water Analysis and Water Testing“	Physical	February 4, 2023.
65	Educational and Awareness Sessions:	An industrial visit to “Pesticide Residue Analysis Laboratory”	Physical	February 2, 2023
66	Wildlife and Biodiversity Conservation:	Competitions like wildlife sketching, photography, and video documentary on endangered animals	Physical	October 7-13, 2022.
Academic year 2023-2024				
1	Under the banner of Women Cell in collaboration with Kadam Institute, Jabalpur, organized Awareness Program on “Environmental Issues” i.e. Nukkad Natak on Environmental Pollution on.	To make students aware of Environmental Issues	Physical	14/5/2023
2	स्वच्छता हेतु किया जागरुक	संत अलॉयसियस महाविद्यालय के शिक्षा विभाग द्वारा दिनांक 25/09/2023 से 02/10/2023 तक स्वच्छता पखवाड़ा कार्यक्रम का आयोजन किया गया। कार्यक्रम का मुख्य उद्देश्य स्वच्छता के प्रति जागरुकता उत्पन्न कर पर्यावरणीय संचेतता को बढ़ावा देना एवं बापू(राष्ट्रपिता महात्मा गांधी) के सपनों “एक स्वच्छ एवं विकसित भारत”को साकार करना था। महाविद्यालयीन कक्षाओं की स्वच्छता, पोस्टर प्रतियोगिता (थीम- एक कदम स्वच्छता की ओर) कैमपस क्लीननेष कार्य किया गया।	B.ed	10-11-2023
3	Department of Zoology organised Webinar	"Effect of climate change on lower marine organisms and their response to combat"	Zoology	23/09/2023
4	पोथा रोपन एवं अमृत वाटिका निर्माण	मेरी माटी मेरा देश (माटी का नमन वीरों का वंदन) अभियान के अंतरगत सेंट अलॉयसियस कॉलेज के छात्रो द्वारा पिपरिया कला के आंगन वाड़ी केंद्र में वृक्षरोपण	Mathematics	08-11-2023

		कार्यक्रम का आयोजन किया गया, जिसमें कॉलेज के 50 छात्रों ने भाग लिया एवं विभिन्न प्रकार के वृक्षों का रोपण किया		
5	Building Entrepreneurship through an Internship in Vermicomposting	St. Aloysius College, Department of Zoology, has organised a 90-day internship course on the topic "Vermicomposting as a Sustainable Practice for Solid Waste Management in Jabalpur City." The internship programme was divided into three phases: vermicomposting, vermiculture, and vermiwash. The aim of the internship was to convert organic waste into manure with the help of earthworms (<i>Eisenia foetida</i>). Vermicomposting is an eco-friendly and scientific method of making compost by using earthworms, which are commonly found in soil and feed on biomass and excrete it in digestive form. Vermicomposting can be done for alternate income or commercial purposes. BH internship offered students the chance to put what they were learning into action in a real-world environment.	Zoology	16/05/2023
6	Spread awareness about the need for clean	NCC unit of St. Aloysius College organized a campaign to clean up the Gwarighat, the bank of river Narmada and spread awareness about the cleanliness around the river bodies.	NCC Cadits	11/11/2023
7	Puneet Sagar Abhiyaan	In pursuance of the vision of the hon'ble Prime Minister, Shri. Narendra Modi, National Cadet Corps(NCC) started a campaign named "Puneet Sagar Abhiyaan" to spread awareness about increasing sea shores and marine pollution and helping people in cleaning water bodies and	Ncc Women Cadits	14/02/2024

	<p>recycling plastic wastes. Following the same 2MP Girls BN NCC unit of St. Aloysius College organized a campaign to clean up the Gwarighat, the bank of river Narmada and spread awareness about the Puneet Sagar Abhiyaan and also about the cleanliness around the river bodies.</p>		
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Table 4: Details of the environmental initiatives undertaken by Institute



Plate 6: Certain evidences of the environmental activities

5.2 Waste Audit

Waste is an inevitable part of our lives. Over the years the awareness about waste management techniques has given a rise to rethink how the waste can be avoided being sent to the landfills. The audit provides an approximation of the types of waste generated, location of waste collections, disposal techniques used, waste segregation methodologies adopted, and waste management strategies that are implemented in addition to the newer ways that can be adopted aiming to make the premise clean and sustainable.

5.2.1 Waste management (Parameters adopted)

S. No.	Type	Current practice	Proposed practice
1	Solid waste (Toilets)	<p>Building solid waste pipeline is not connected to any biogas plant;</p> <p>Currently, Toilet paper, Napkin wrappers, Hairs etc. are treated and managed every day by the college sweepers.</p> <p>The waste material are collected and disposed at a place assigned by the Municipal Corporation, who further incinerates the collected solid waste.</p>	<i>Biogas plant can be proposed</i>
2	Organic waste (Regular)	<p>College has two vermicomposting pits of the size 4'*3'feet to manage the organic waste.</p> <p>In every 3-4 months 100kg manure is produced through vermicomposting.</p>	Continue with the current practice, no changes
3	Liquid waste (Toilets, wash basins)	<p>The liquid waste from Toilets and washrooms are directed to the sewage lines.</p> <p>The waste water from the water coolers are directed to the garden.</p>	<i>Waste water treatment plant can be set up as there is space and resources availability</i>
4	Chemical waste from laboratories	<p>➡ The water coming out from the outlets is collected in a water tank where it is treated for</p>	Continue with the current practice, no changes

		<p>sedimentation by Alum.</p> <ul style="list-style-type: none"> ➤ The water is then decanted leaving the sediment at the bottom. ➤ Thereafter water is treated for acidity by adding baking soda. <p>Concentrated and dilute acids and alkalis, harmless soluble inorganic salt (including all drying agents such as CaCl_2, MgSO_4, Na_2SO_4), fine (TLC grade) silica and alumina are washed down the drains with excess water.</p>	
5	Toxic waste from laboratories	Waste like agarose gel are boiled before disposing , ethidium bromide or heavy metals (i.e. arsenic, chromium) deactivated by either autoclave or chemical disinfection. After then it is disposed	Continue with the current practice, no changes
6	E-waste	Sold to junk dealers scrape dealers, reused in other machine too.	<i>Tie-up with eco-reco; thereco for recycling</i>
7	Plastic waste	College discourage plastic usages as it follows "No Plastic Zone"	<i>Tie-up with Bisleri's Bottles for change, undertake eco-walls project and other practices</i>
8	Bio-waste (Sanitary)	<p>Collected and disposed by Dispenser (Machine).</p> <p>Ethidium Bromide (Etbr) is a potent carcinogen that causes mutation via base transition.</p> <p>It is being used in Molecular Biology laboratory work whenever there is a need to run the isolated DNA in gel electrophoresis. Thus, it becomes important to dispose them off carefully.</p>	Continue with the current practice, no changes
9	Construction waste, reuse	Usable items like bricks, doors, windows and its panes are reused, debris are used for land filling; left waste are managed through waste disposable of municipal corporation. Renovation of college campus is going on	Continue with the current practice, no changes

Table 5: Details of the waste management practices

5.2.2 Waste management (Measures adopted)

The details of the dustbins available in the premises is documented below:

Dustbin Nos.	Floor Or Block	Dustbin Type (Size)	Dustbin Material
7	Ground	Medium	Metal, Plastic
25	1st Floor	Medium	Metal, Plastic
21	2nd Floor	Medium	Metal, Plastic
6	3rd Floor	Medium	Metal, Plastic

Table 6: Documentation of the dustbins in the premises

There are fifty-nine dustbins indoors and two in the outdoor areas of the premises.

5.3 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.

5.3.1 Water availability and consumption

5.3.1.1 Source of Primary water supply

The Institute requires water from the Local Municipality for drinking water purposes. The documentation below related to water tanks in the premises.

S. No.	Type	Size	Capacity (litres)	Nos.
1	Underground	6 ftX5 ft	-	1
2	Overhead	11.4 ftX4 ft	2000 L each	2
3	Fire tank	-	20,000 L	1 proposed
4	Rain water harvesting tank	-	500 L	4

Table 7: Water tanks in the premises

The study suggests that the space requires of tanks can be documented with mention of size, capacity usage, Institute name, colour coding and last maintenance date mentioned on each facility.

5.3.1.2 Source of Secondary water supply

The Institute uses water supply for secondary usages such as watering plants, kitchen, toilets, and wash basins and other spaces. There are two bore wells.

5.3.1.3 Source of Tertiary water supply

The tertiary source of water is the source of water harvesting. Two bore wells are recharged. Low-lying lawn, traps water, which percolates and recharges underground water.

5.3.1.4 Source of Reusing waste water

This initiative is not practiced.

The study suggests that keeping the site context and constraints in mind the waste water treatment plant can be explored.

5.3.2 Areas of water usage

Based on the inventory done and data shared by the staff we found that the premise has the facilities such as:

- General toilets for male, female
- Taps for gardens and toilet facilities
- Drinking water cooler
- Net-metering for water supply

The study suggests that daily documentation of water supply should be undertaken.

5.4 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.

Overall, the premise is good in terms of cleanliness and hygiene.

6. Inferences

The following suggestions are to be considered as a ***first priority*** to be executed within the next 1.5 to 2.5 years from the date of the Report submission.

Section 1 – Green practices audit

➔ Environmental awareness

- There can be various slogans in local and national language 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.

➔ Mandatory programs should be conducted on following days

- January
 - i. Wd. Braille Day
- February
 - i. Wd. Wetland day
 - ii. Wd. Pulses day
 - iii. Intd. Polar Bear Day
 - iv. NI. Science day
- March
 - i. Wd. Wildlife day
 - ii. Intd. Action for Rivers
 - iii. Global Recycling Day
 - iv. Wd. Sparrow day
 - v. World forest day/ Intl. day of happiness
 - vi. Wd. Water day
 - vii. Wd. Meteorological & resources day
- April
 - i. Intd. Mine awareness day
 - ii. World health day
 - iii. Wd Atmosphere Day
 - iv. Intd. Earth day
 - v. Intd girl in ict/ Wd. Safety, health
- May

- i. Wd Migratory Bird Day
- ii. Intd. Of plant health
- iii. Wd. Bee day
- iv. Intd. Biological diversity
- v. Wd. No tobacco day

- o June

- i. Wd. Bicycle day
- ii. Wd. Env't day
- iii. World Oceans Day
- iv. Global Wind Day
- v. Wd. Combat drought
- vi. Sustn. Gastronomy day
- vii. Intd. Of the tropics

- o July

- i. Intd. Of cooperatives & World Day Free of Plastic Bags
- ii. Soil conservation
- iii. Wd. Population day
- iv. Mangrove Ecosystem

- o August

- i. Intd. Indigenous day

- o September

- i. Intd. Clean blue sky
- ii. Intd. Literacy/ Clean-up Day
- iii. World ozone day
- iv. Intd. Of peace/ Zero Emission Day
- v. Intd. Aware food loss

- o October

- i. Wd. Nature day
- ii. Wd. Habitat day
- iii. Wd. Wildlife day
- iv. Wd. Cotton day
- v. Wd. Migratory bird
- vi. Intd. Rural women
- vii. Wd. Food day
- viii. Climate Action

- ix. Wd. Cities day
- November
 - i. Wd. Tsunami awareness
 - ii. NI. Birds day
 - iii. Wd. Energy/ Diabetes
 - iv. Wd. Toilet day
- December
 - i. Intd. Person with disability day
 - ii. Wd. Soil day

Note:

- Wd. Stands for World
- Intd. Stands for International Day

DETAILED REPORT

Section 2 - Waste audit

➔ Awareness

- Educate the housekeeping staff through monthly or quarterly programs related to waste management
- Generate awareness among student and staff stakeholders about products that generate waste through display boards about 'Do not litter' with messages about waste management, its importance and process

➔ Measures towards waste management

- Check cutlery practice in canteen area to inculcate healthy habits
 - i. Steel/ paper/ *bagasses* (sugarcane waste) plates for food
 - ii. Paper cups/ *Kulhad* or mud containers for tea
 - iii. Food served on leaf and further used for composting
 - iv. Spoons or straws made of disposable or edible material
 - v. Stakeholders can be guided to bring their own tiffin's for material management
 - vi. Possibilities of waste paper reused including newspaper for cutlery replacement can be explored
- Waste management for every type of waste
 - i. Increase the manpower for campus management
 - ii. Avoid any kind of waste burning as it is hazardous
 - iii. Go paperless – Use online medium to transfer notes and all information which save paper waste

➔ Regular checks

- Food wastage - Check the quantity of food wastage in canteen/ hostel mess and device a plan of action with the staff accordingly
- Dustbins overflow – Location of the dustbins, whether they are over flowing, whether the waste is dumped anywhere within or in backyard of premises – Take a check and collect the waste appropriately

Section 3 - Water audit

➔ Awareness

- Remind every stakeholder about water conservation/ avoid water wastage by displaying board at every wash room, laboratories, outdoor ground and canteen areas
- Literate employees about water conservation and educate the staff members about the measures and action that can be taken

➔ Measures towards water conservation

- Put a container below the outdoor unit pipe of every air conditioner and reuse the same for secondary purposes such as washing cars, cleaning campus outdoor areas etc. avoid using the same for plantation.
 - i. Maintain a record of the nos. of containers and water recycled on a daily basis, further prepare a monthly or quarterly report about the same

➔ Regular checks

- Check taps/ faucets of toilets, wash basins, laboratories and outdoor areas for non-working conditions and leakages on a daily basis after 5 pm or once Institute's working hours are over
- If there is hostel facility there should be a regular check once students go to the Institute for any open taps or any type of water wastage; additionally replace all showers with bucket and tap system within hostel premises
- Lock the outdoor taps when they are not in use and check pipelines for damage to avoid any non-maintenance
- Use buckets for floor cleaning to save water and recycle the waste water
- Any kind of water wastage in any area indoor/ outdoor in every department of the Institute and report about the same to authorities
- Cover any open drain/ open water area (except farm/ water pond) that can be prone to become a mosquito breeding spot

Section 4 - Health and Hygiene Audit

➔ Awareness

- Prepare specific instructions for cleaning and sanitizing and display the instructions all over premises
- Display signages/ posters about 'Do not spit' and 'Keep surrounding clean' No smoking' and 'Healthy premises' for healthy habits
- Undertake every Saturday 'Campus Cleanliness program' once in a week by the students and staff members

➔ Neat and clean premises practices

- Daily one times cleaning of all floors passage areas through sweeping dusting in indoor areas collection of dry fallen leaves and access ways; watering of plants in outdoor areas
- Daily three times cleaning, disinfecting washroom areas and check to avoid any garbage burning all around campus
- Weekly deep cleaning of building spaces including individual areas, open grounds and grass cutting

➔ Stakeholder intervention

- Practice pest control programs with through external stakeholders such that 'Once in every 15 days for Library' whereas 'Once in a month for outdoor areas such as open drains, mosquito breeding spots etc.' and 'Once in every six months or annually for entire campus'

➔ Hygiene Facilities - Availability of Sanitizing Equipment

- Water dispenser (Non-mechanic/ electric), hand wash on every floor
- There should be facilities such as potpourri, camphor tablets in the toilet to avoid smell and health related issues in toilet areas
- Install sanitary vending machine or make the sanitary pads available through a female representative, the information about the same should be displayed in foyer areas
- Green carpets could be placed outside drinking water and toilet blocks. This will add to hygiene areas and keep the water spillage under control.

7. Compilation

The study is based on the data collected, analyzed, 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 analyze 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

