GREEN AUDIT REPORT

ORIENTAL COLLEGE KOHIMA

2023

Kohima, Nagaland-797001

GREEN AUDIT REPORT

CONTENTS

ACKNOWLEDGEMENT

I would like to acknowledge the efforts and contributions of the entire audit team who worked diligently on the green report audit. Special thanks to Dr. Khriereizonuo Dzüvichü Vashant, Principal, Oriental College Kohima for her dedication, expertise, and commitment to ensuring the accuracy and integrity of our environmental sustainability assessment. This audit wouldn't have been possible without your hard work and professionalism.

Additionally, I'd like to express our gratitude to the Department of Public Health Engineering, Government of Nagaland and the Department of chemistry, Kohima Science College for their cooperation and support throughout the audit process. Their willingness to share information and collaborate with our team was instrumental in the success of this audit.

Furthermore, we appreciate the valuable input and guidance from our partners, stakeholders and the faculty of Oriental College Kohima who provided critical insights and data, contributing to the comprehensiveness of this green report audit.

Finally, I want to acknowledge the broader community and environmental organizations for their ongoing commitment to sustainability, which inspires us to continue our work in promoting environmentally responsible practices.

Thank you all for your collective efforts in making this green report audit a meaningful and impactful endeavor.

DISCLAIMER

Green Audit Team has prepared this report based on the primary data collected from different locations within the college campus. All considerations have been taken into account to analyse the samples scientifically without any bias. Details contained in this report have been compiled in good faith based on the information gathered. No plant or animal was harmed during this study.

EXECUTIVE SUMMARY

The state of the environment today and its detrimental effects on Earth, especially the human species, are one of the main worries of the globe. It dominates the top news headlines and is the topic of conversation in every venue on the global stage. Climate change and the increase in global temperature are two realities that impacted the world hard and quickly at the start of the twenty-first century. The general public disregarded the ecologists' and environmentalists' warnings, which is why this phenomenon appeared out of nowhere. The impact of this climate change is now felt everywhere on earth. Due to the destruction produced by nature, every country is confronted with an overwhelming dilemma. Together, these factors have upended the social, political, and economic landscape, forcing the people and governments to reflect and rebuild their policies and ideals since solving this urgent problem would require international cooperation.

Regardless of size, educational institutions provide a setting where academics, faculty, and students can engage and share ideas in order to effect constructive change. The research and conclusions of educational institutions have always shaped policy and the long-term growth of a safe future. Oriental College Kohima is not an outlier in this sense.

The green audit report takes into consideration those initiatives meant for maintaining a balance between anthropogenic activities and nature, the general upkeep of the environment, in accordance with the norms and standards set by Oriental College Kohima and in tune with the plans and policies formulated by the institution regarding environment and related issues. All the stakeholders in and around the campus were involved and involved in this. The college's policy has always been to spread knowledge and raise consciousness of its surroundings. The institution has preserved cleanliness, calmness, and coexistence with nature and the neighborhood around since its founding in 1996. This tradition is still present today.

The Oriental College Kohima Green Audit Report makes an effort to calculate the environmental effects of the college's existence, both good and bad. Additionally, it offers a path forward for realizing and attaining a more optimistic strategy for preserving a balance between the needs of the institution and the local environment. Despite being viewed as a modest effort, the college's project represents a significant step forward in humankind's efforts to conserve Mother Nature.

ABOUT THE COLLEGE

Oriental college Kohima is a private institution established in 1996 by a group of enthusiastic, energetic men under the auspices of the Christian youth organization of Christian Revival Church, Kohima village. Christian youth organization is registered under registration of societies act, 1969 and numbered as H/RS-4958 dated 25th January 2008. The university grants commission has granted recognition to the college under section 2(f) and 12(b) of the UGC Act, 1956 on 7th July 2011. The college is sprawling, scenic and serene institution catering to the needs and demands of higher education of Nagaland. The campus spreads over a vast stretch of land measuring about 5. 20 acres and is located below the east circular road about 1.4 KM from the main city Kohima.

The college seeks to provide a cultural ambience in which discipline, moral and ethical values, scholastic excellence are encouraged. It also promotes diffusion of knowledge and advancement activities in all its branches including vocational, technical, professional, cultural, social and moral education for all persons irrespective of creed, caste, community or social status.

The college is introducing life skill in personality development class to inculcate life-value and upgrade skill and talents to prepare the students for a holistic development of their future.

VISION OF THE COLLEGE

The vision of the college is to provide holistic education to its students to mould them into responsible citizens who are empowered to overcome challenges and be active participant in shaping the future of our society.

MISSION

Oriental College is committed to equality of opportunity, to engendering inclusivity and to supporting staff and student well being. The college is committed to provide a cultural ambience in which discipline, moral and ethical values as well as scholastic excellence and skill development are engendered irrespective of creed, caste, community or social status.

In order to facilitate the all round development of our students our classroom teaching is complemented with a wide range of co-curricular activities and clubs. The college also provides an exclusive Life Skills and Personality Development (LSPD) course in conjunction with the regular syllabi.

At Oriental College we recognise the simple and profound truth that every child is educable when given a conducive environment. We respect the diverse capability of each individual student. Our aim is to educate and raise as many men and women who will go on to become morally sound, well rounded and contributing members of the society.

We also aim to develop and maintain high academic standards in accordance with the national framework and the ever shifting social and academic criteria.

Photo: Aerial view of Oriental College Kohima.

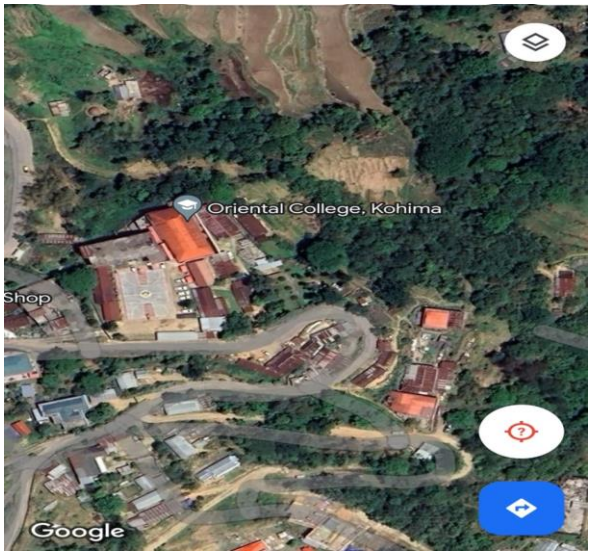


Photo: Google map of Oriental College Kohima.

ENVIRONMENTAL MANAGEMENT PLANS AND POLICIES OF THE COLLEGE

Oriental College Kohima, located Below East Circular Road, D.Khel, Kohima - 797001, Nagaland, India. Somewhere not far from urbanization but surrounded with nature. All infrastructure development plans are carried out with consideration for the slope gradient, surface run off, and to lessen the impact of human activity on the environment because the area is ecologically and topographically vulnerable.

The college's policy has always been to spread knowledge about and raise awareness of the surrounding environment, notably that of the campus, through its Green Initiative, which includes things like-

1. Incorporating specific courses into the curriculum, such as Environmental Studies, in order to promote environmental awareness.
2. Fostering in the students a feeling of environmental responsibility by active participation in the college's NSS, Eco Club, Green Campus Cell, Swatch Bharat and Sanitation Cells.
3. Regular implementation of environmental awareness campaigns.
4. Carrying out environmental-related activities such as large-scale volunteer work, tree planting, and park and botanical garden upkeep.
5. Taking daily waste management seriously, trashes are disposed of properly and securely.

In order to pursue numerous initiatives for a sustainable development with effective resource utilization, the college community, comprising the management, the faculty, non-teaching staff, and most importantly the students, is dedicated to the following actions to help further this goal:

1. Educating the college community on water management best practices.
2. Maintaining and making use of the campus various rainwater harvesting systems.
3. Moving toward a "paperless office," by maximizing the use of ICT (information and Communications Technology) while reducing the use of paper.
4. Identification and preservation of the campus's flora and fauna as a means of safeguarding and nurturing it. (Details provided in Annexure 1 and 2)
5. Moving in the direction of clean and sustainable energy sources, such as solar, wind, in the future.

6. Encouraging the compost of biodegradable garbage for use as manure and other purposes by worms.

ESSENCE OF THE GREEN AUDIT REPORT

For the record and for future use as a reference, Oriental College Kohima's Green Audit Report (2023-2024) has been put together and provided. This study was carefully developed in a methodical, scientific way with the help of the college community and all the stakeholders who shared the common aim of "preserving and protecting the pristine environment in and around the college."

In order to understand the current environmental condition of the college campus, it is necessary to carry out various tasks, such as water analysis, soil analysis, waste management, and analysis of energy consumption. This Report will serve as an annual document with respect to the policies and progress made by the college to protect and preserve the healthy yet fragile environment in the college premises.

GOALS AND OBJECTIVES OF THE GREEN AUDIT

A clear college policy for a sustainable and renewable environment, in accordance with the relevant laws, policies, and standards, is what the audit aims to identify, quantify, characterize, and prioritize. Therefore, the key aims and purposes of conducting a green audit are:

GOALS OF THE GREEN AUDIT REPORT

- Conserving the environment without harming it by preserving and protecting fauna and flora of the delicate ecology in and around the campus.
- To conserve energy by making efficient use of it.
- To keep track of the campus' daily weather events and thereby monitor climate change.
- To enable appropriate scientific methods for the effective management and disposal of waste
- To preserve a healthy balance between human activity and nature.
- To create a sustainable future that is in tune with the natural environment.

OBJECTIVES OF THE GREEN AUDIT

- To research the flora and fauna in and around the college in order to promote conservation measures for it.
- In addition to evaluating the water quality, to examine the types and quality of the soil.
- To investigate the college's effective approach to managing its use of natural resources and energy.
- To evaluate scientific waste management practices for both biodegradable and non-biodegradable trash.

METHODOLOGY

The technique, which included a variety of instruments including the creation of a questionnaire, a physical examination of the campus, observation and review of the documentation, interviews with important individuals, data analysis, measurements, and suggestions, was modified in order to undertake a green audit.

Onsite Visit

The Green Audit Team did a field visit. Assessment of the Institution's green cover, waste management procedures, energy conservation tactics, etc. were the main points of the visit. During the inspections, samples of the soil and water were taken. In addition to collecting soil samples from various locations around the school, water samples from various water sources were also obtained. The normal procedures were followed in terms of sample collection, preservation, and analysis to ensure a scientific approach.

Focus Group Discussion

The Focus Group discussions were held with staff members and the management focusing various aspects of Green Audit. The discussion was focused on identifying the attitudes and awareness towards environmental issues at the institutional and local level.

The methodology uses a variety of tools, including physical inspection of the college's infrastructure and surrounding area, observation and review of the documentation, key person interviews, data analysis, calculations, and recommendations relating to the subjects of specialization. The evaluations made using the suggested methodology are described in full below:

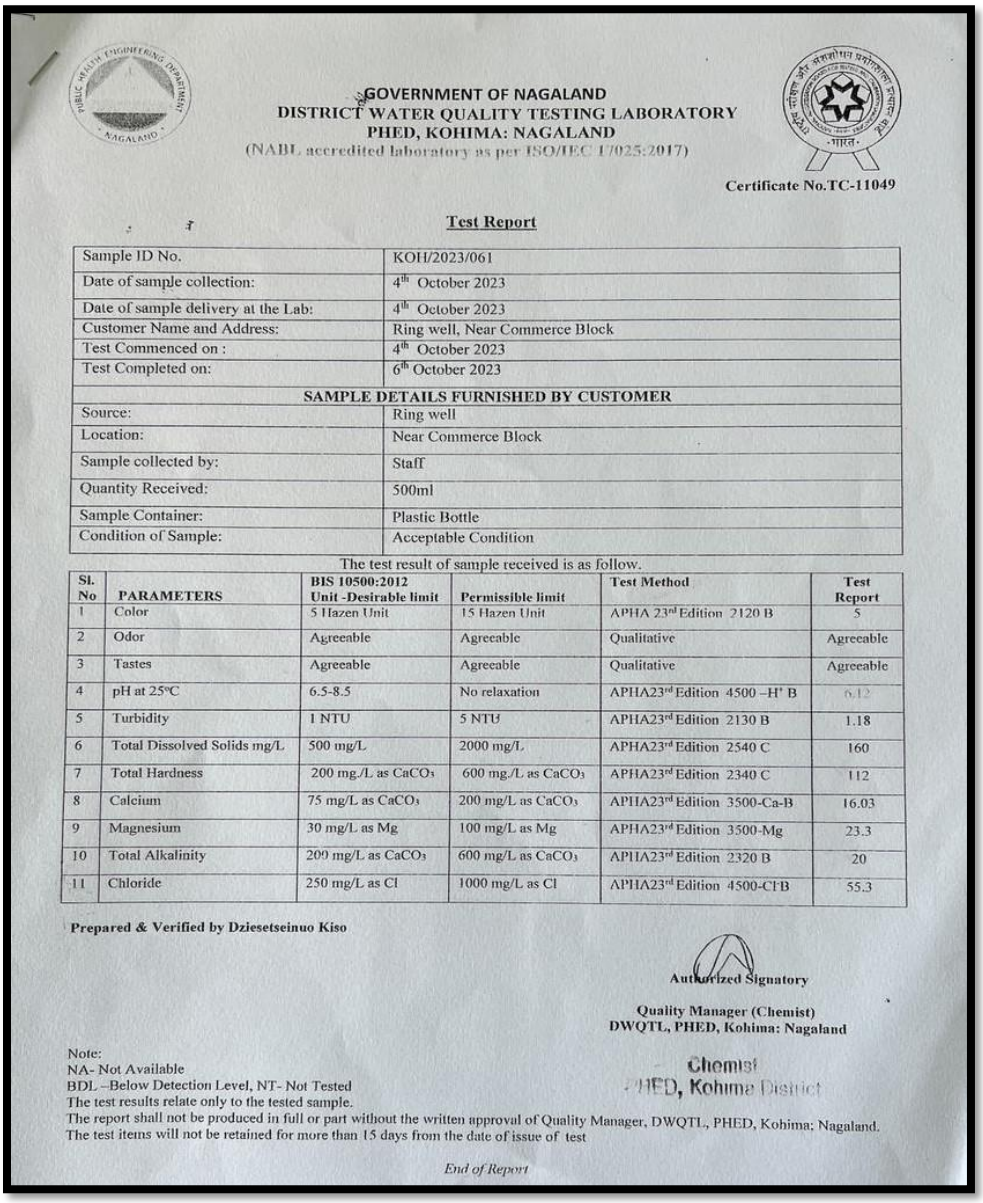
Sl. No	Area of assessment	Methodology
1	Water assessment	Lab analysis, APHA 23rd edition
2	Soil assessment	Lab analysis, (Govt.ind.2011)
3	Assessment of energy consumptions	Physical interviews, data collection in the campus buildings and verification
4	Waste management	Spot verification
5	Water management	Spot verification
6	Fauna diversity	Spot verification, data collection and literature survey
7	Flora diversity	Spot verification, data collection and literature survey

ANALYSIS REPORT

ASSESMENT OF WATER QUALITY

The water samples were collected from three different sources within the college campus and analysed using standard procedures.

Sample 1: NEAR COMMERCE BLOCK



GOVERNMENT OF NAGALAND
DISTRICT WATER QUALITY TESTING LABORATORY
PHED, KOHIMA: NAGALAND
(NABL accredited laboratory as per ISO/IEC 17025:2017)

Certificate No.TC-11049

Test Report

Sample ID No.	KOH/2023/061
Date of sample collection:	4th October 2023
Date of sample delivery at the Lab:	4th October 2023
Customer Name and Address:	Ring well, Near Commerce Block
Test Commenced on :	4th October 2023
Test Completed on:	6th October 2023
SAMPLE DETAILS FURNISHED BY CUSTOMER	
Source:	Ring well
Location:	Near Commerce Block
Sample collected by:	Staff
Quantity Received:	500ml
Sample Container:	Plastic Bottle
Condition of Sample:	Acceptable Condition

The test result of sample received is as follow.

Sl. No	PARAMETERS	BIS 10500:2012 Unit -Desirable limit	Permissible limit	Test Method	Test Report
1	Color	5 Hazen Unit	15 Hazen Unit	APHA 23rd Edition 2120 B	5
2	Odor	Agreeable	Agreeable	Qualitative	Agreeable
3	Tastes	Agreeable	Agreeable	Qualitative	Agreeable
4	pH at 25°C	6.5-8.5	No relaxation	APHA23rd Edition 4500 –H+ B	6.12
5	Turbidity	1 NTU	5 NTU	APHA23rd Edition 2130 B	1.18
6	Total Dissolved Solids mg/L	500 mg/L	2000 mg/L	APHA23rd Edition 2540 C	160
7	Total Hardness	200 mg/L as $CaCO_3$	600 mg/L as $CaCO_3$	APHA23rd Edition 2340 C	112
8	Calcium	75 mg/L as $CaCO_3$	200 mg/L as $CaCO_3$	APHA23rd Edition 3500-Ca-B	16.03
9	Magnesium	30 mg/L as Mg	100 mg/L as Mg	APHA23rd Edition 3500-Mg	23.3
10	Total Alkalinity	200 mg/L as $CaCO_3$	600 mg/L as $CaCO_3$	APHA23rd Edition 2320 B	20
11	Chloride	250 mg/L as Cl	1000 mg/L as Cl	APHA23rd Edition 4500-ClB	55.3

Prepared & Verified by Dziesetseinuo Kiso

Authorized Signatory

Quality Manager (Chemist)
DWQTL, PHED, Kohima: Nagaland

Chemist
PHED, Kohima District

Note:
NA- Not Available
BDL –Below Detection Level, NT- Not Tested
The test results relate only to the tested sample.
The report shall not be produced in full or part without the written approval of Quality Manager, DWQTL, PHED, Kohima; Nagaland.
The test items will not be retained for more than 15 days from the date of issue of test

End of Report

Sample 2: HOSTEL KITCHEN WATER

Source:	Pond-2
Location:	Hostel Kitchen Water
Sample collected by:	Staff
Quantity Received:	500ml
Sample Container:	Plastic Bottle
Condition of Sample:	Acceptable Condition

The test result of sample received is as follow.

Sl. No	PARAMETERS	BIS 10500:2012 Unit -Desirable limit	Permissible limit	Test Method	Test Report
1	Color	5 Hazen Unit	15 Hazen Unit	APHA 23rd Edition 2120 B	5
2	Odor	Agreeable	Agreeable	Qualitative	Agreeable
3	Tastes	Agreeable	Agreeable	Qualitative	Agreeable
4	pH at 25°C	6.5-8.5	No relaxation	APHA23rd Edition 4500 –H+ B	7.12
5	Turbidity	1 NTU	5 NTU	APHA23rd Edition 2130 B	1.18
6	Total Dissolved Solids mg/L	500 mg/L	2000 mg/L	APHA23rd Edition 2540 C	80
7	Total Hardness	200 mg./L as $CaCO_3$	600 mg./L as $CaCO_3$	APHA23rd Edition 2340 C	124
8	Calcium	75 mg/L as $CaCO_3$	200 mg/L as $CaCO_3$	APHA23rd Edition 3500-Ca-B	24.05
9	Magnesium	30 mg/L as Mg	100 mg/L as Mg	APHA23rd Edition 3500-Mg	24.3
10	Total Alkalinity	200 mg/L as $CaCO_3$	600 mg/L as $CaCO_3$	APHA23rd Edition 2320 B	116
11	Chloride	250 mg/L as Cl	1000 mg/L as Cl	APHA23rd Edition 4500-Cl-B	43.9

Sample 3: NEAR COLLEGE BUS DRIVER RESIDENT

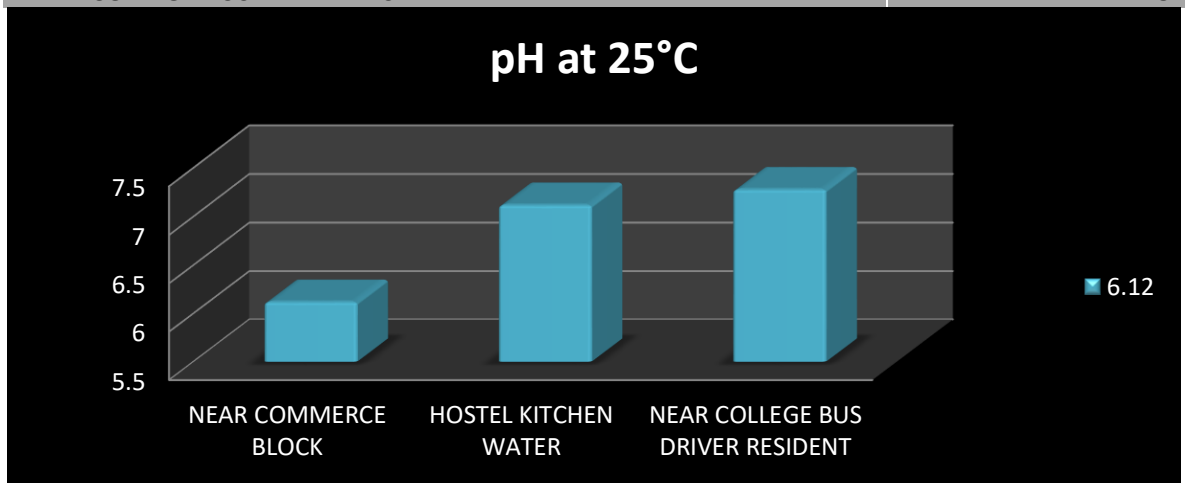
Source:	Pond-1
Location:	Girls & Boys Hostel, Near College Bus Driver Resident
Sample collected by:	Staff
Quantity Received:	500ml
Sample Container:	Plastic Bottle
Condition of Sample:	Acceptable Condition

The test result of sample received is as follow.

Sl. No	PARAMETERS	BIS 10500:2012 Unit -Desirable limit	Permissible limit	Test Method	Test Report
1	Color	5 Hazen Unit	15 Hazen Unit	APHA 23rd Edition 2120 B	5
2	Odor	Agreeable	Agreeable	Qualitative	Agreeable
3	Tastes	Agreeable	Agreeable	Qualitative	Agreeable
4	pH at 25°C	6.5-8.5	No relaxation	APHA23rd Edition 4500 –H+ B	7.28
5	Turbidity	1 NTU	5 NTU	APHA23rd Edition 2130 B	1.15
6	Total Dissolved Solids mg/L	500 mg/L	2000 mg/L	APHA23rd Edition 2540 C	78
7	Total Hardness	200 mg./L as $CaCO_3$	600 mg./L as $CaCO_3$	APHA23rd Edition 2340 C	92
8	Calcium	75 mg/L as $CaCO_3$	200 mg/L as $CaCO_3$	APHA23rd Edition 3500-Ca-B	14.4
9	Magnesium	30 mg/L as Mg	100 mg/L as Mg	APHA23rd Edition 3500-Mg	18.9
10	Total Alkalinity	200 mg/L as $CaCO_3$	600 mg/L as $CaCO_3$	APHA23rd Edition 2320 B	92
11	Chloride	250 mg/L as Cl	1000 mg/L as Cl	APHA23rd Edition 4500-Cl-B	39.7

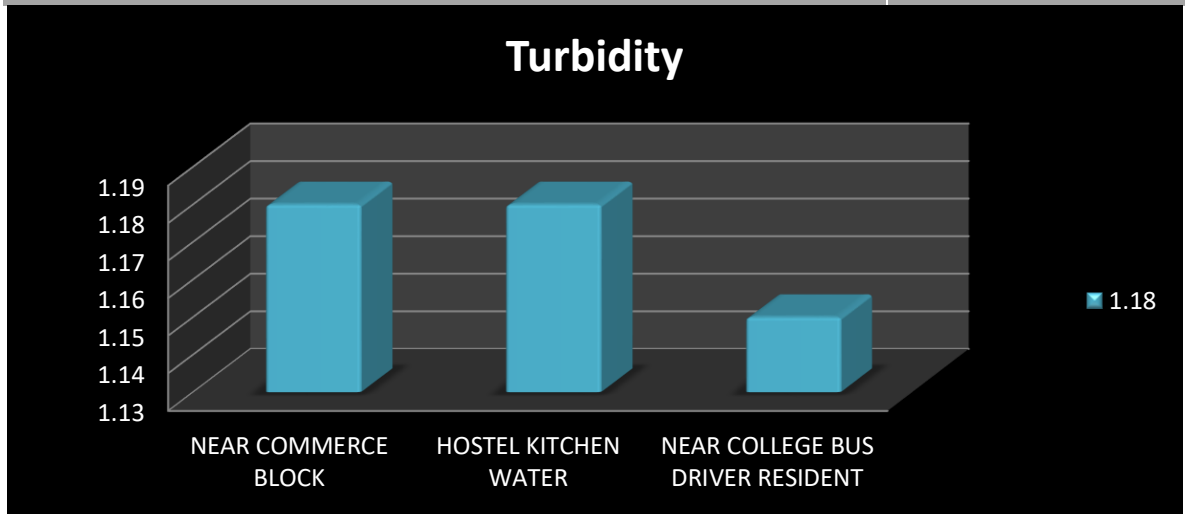
pH at 25°C

Column1	Column2
NEAR COMMERCE BLOCK	6.12
HOSTEL KITCHEN WATER	7.12
NEAR COLLEGE BUS DRIVER RESIDENT	7.28



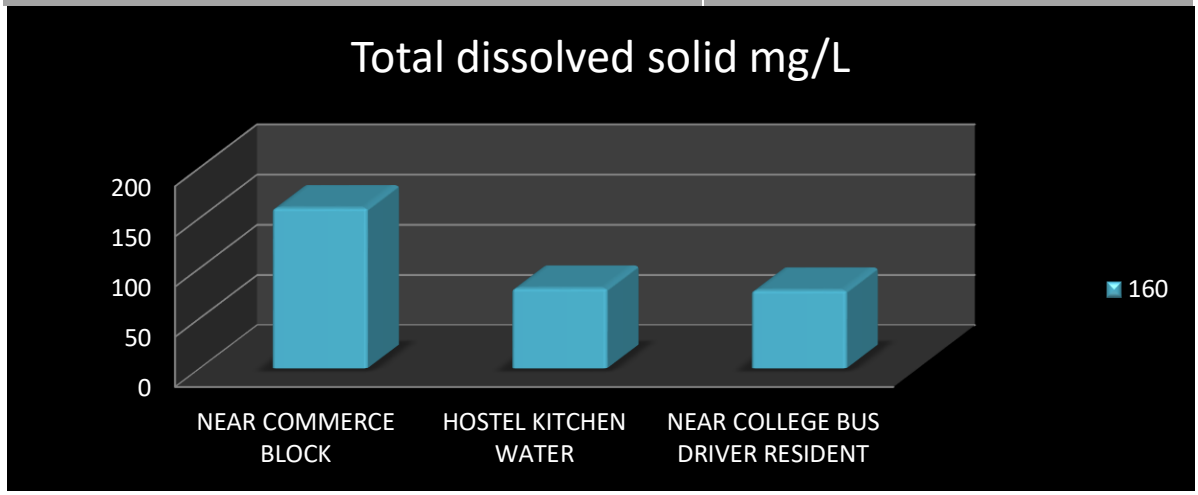
Turbidity

Column1	Column2
NEAR COMMERCE BLOCK	1.18
HOSTEL KITCHEN WATER	1.18
NEAR COLLEGE BUS DRIVER RESIDENT	1.15



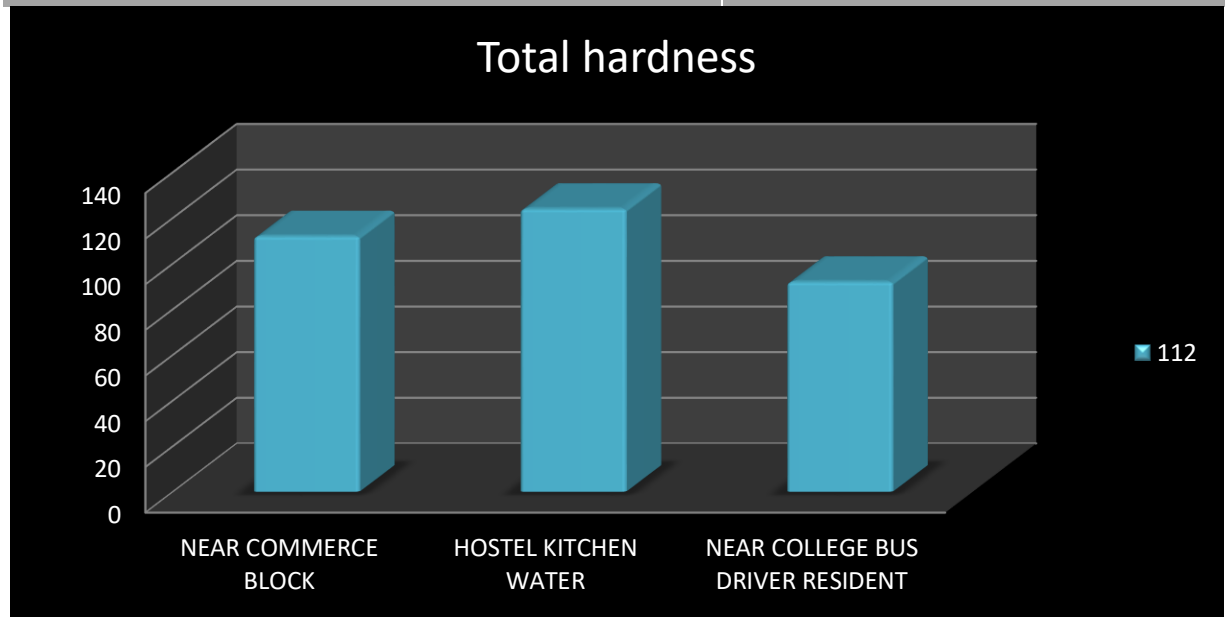
Total dissolved solid mg/L

Column1	Column2
NEAR COMMERCE BLOCK	160
HOSTEL KITCHEN WATER	80
NEAR COLLEGE BUS DRIVER RESIDENT	78



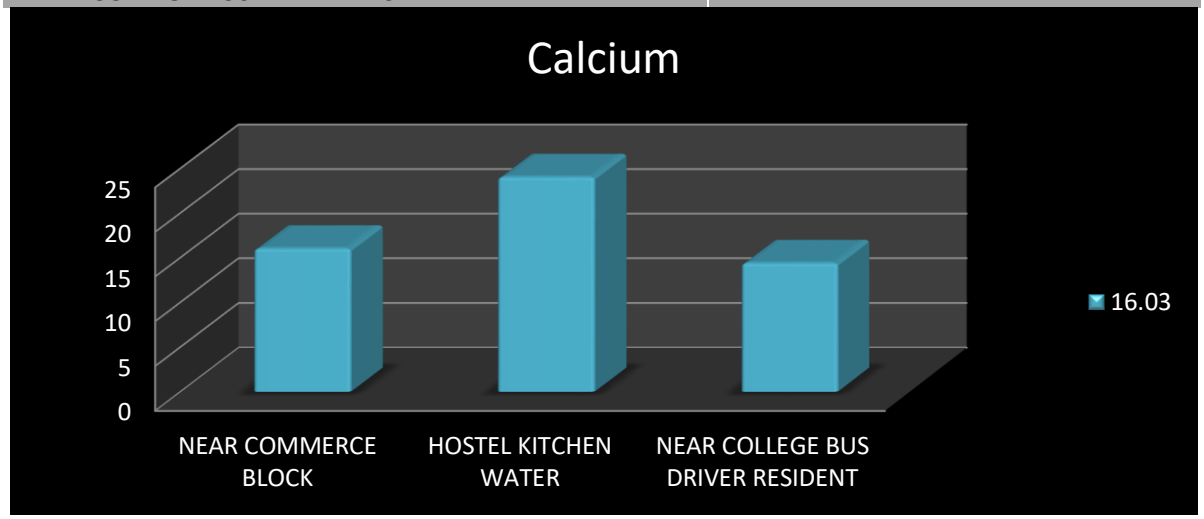
Total hardness

Column1	Column2
NEAR COMMERCE BLOCK	112
HOSTEL KITCHEN WATER	124
NEAR COLLEGE BUS DRIVER RESIDENT	92



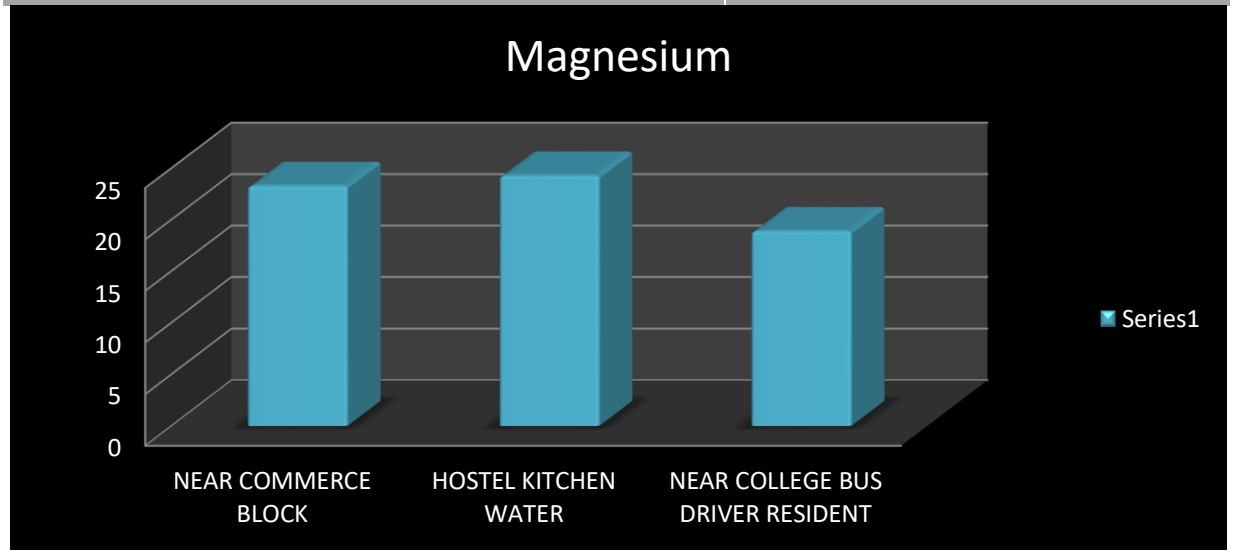
Calcium

Column1	Column2
NEAR COMMERCE BLOCK	16.03
HOSTEL KITCHEN WATER	24.05
NEAR COLLEGE BUS DRIVER RESIDENT	14.4



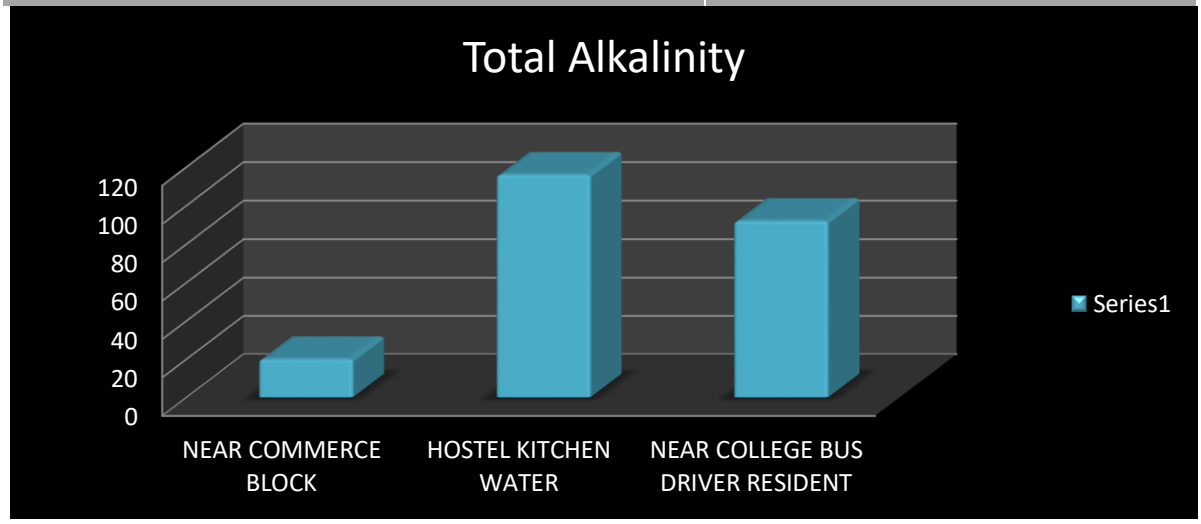
Magnesium

Column1	Column2
NEAR COMMERCE BLOCK	23.3
HOSTEL KITCHEN WATER	24.3
NEAR COLLEGE BUS DRIVER RESIDENT	18.9



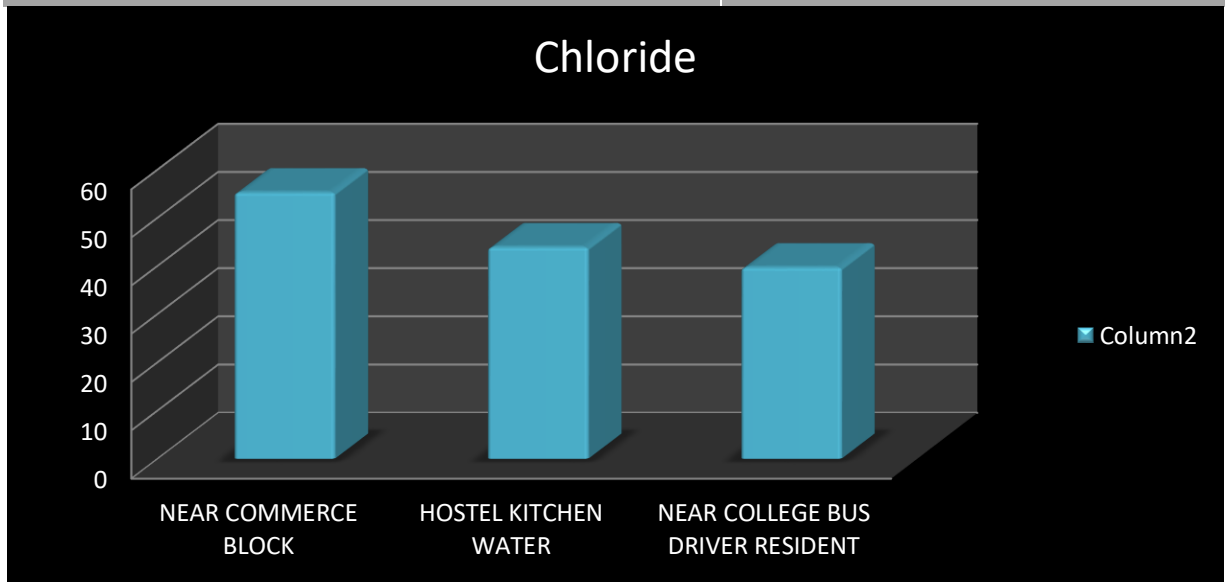
Total Alkalinity

Column1	Column2
NEAR COMMERCE BLOCK	20
HOSTEL KITCHEN WATER	116
NEAR COLLEGE BUS DRIVER RESIDENT	92



Chloride

Column1	Column2
NEAR COMMERCE BLOCK	55.3
HOSTEL KITCHEN WATER	43.9
NEAR COLLEGE BUS DRIVER RESIDENT	39.7



ASSESSMENT OF SOIL

The soil samples were collected from three different sources within the college campus and analysed using standard procedures.

Sample no.1: Academic area

Sample no. 2: Girls hostel

Sample no. 3: Boys hostel

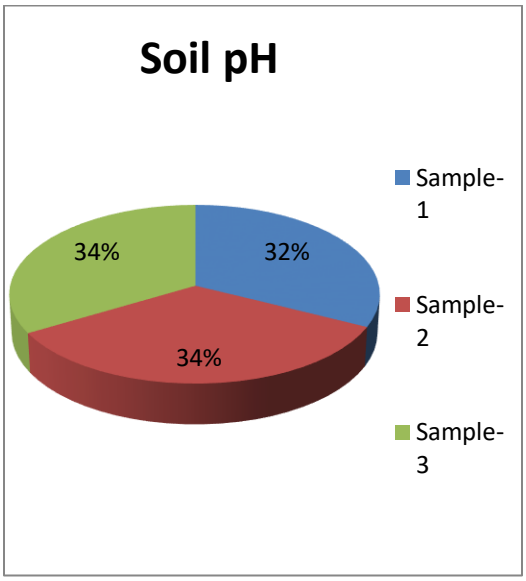
1. **Soil pH**

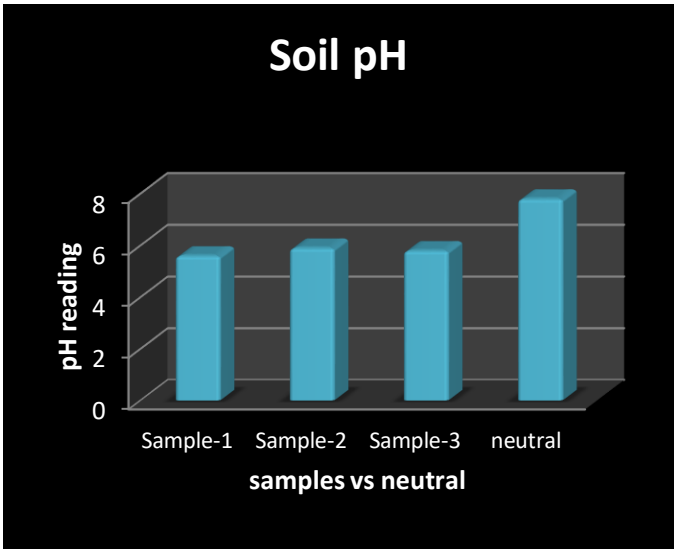
Table: Soil reaction ratings (Govt.ind.2011)

Soil reaction rating	**pH**
Extremely acidic	<4.6
Strongly acidic	4.6-5.5
Moderately acidic	5.6-6.5
Slightly acidic	6.6-6.9
Neutral	7.0
Moderately acidic	7.1-8.5
Strongly acidic	>8.5

Table: pH readings observed for the soil samples.

Samples	**pH readings**	**Remarks**
Sample-1	5.6	Moderately acidic
Sample-2	5.9	Moderately acidic
Sample-3	5.8	Moderately acidic





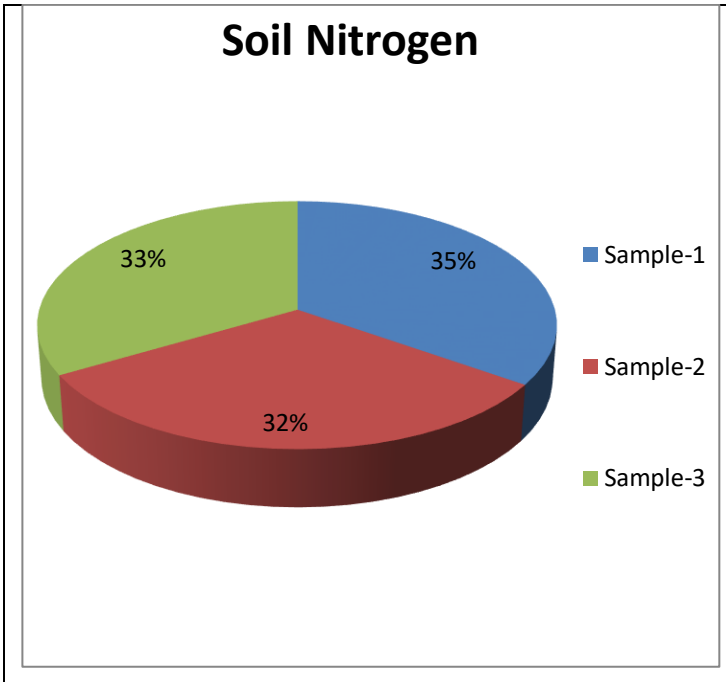
2. Soil Nitrogen

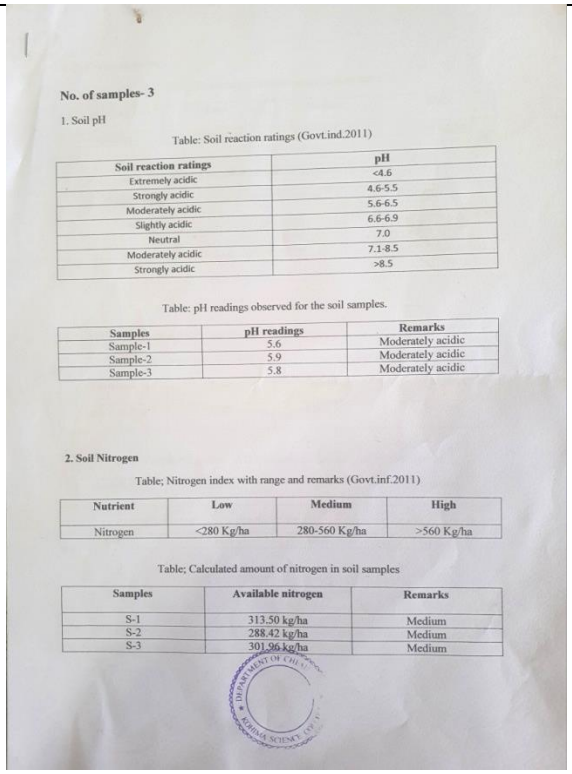
Table: Nitrogen index with range and remarks (Govt.ind.2011)

Nutrients	Low	Medium	High
Nitrogen	<280 Kg/ha	280-560 Kg/ha	>560 Kg/ha

Table: Calculated amount of nitrogen in soil samples

Samples	Available nitrogen	Remarks
Sample-1	313.50 Kg/ha	Medium
Sample-2	288.42 Kg/ha	Medium
Sample-3	301.96 Kg/ha	Medium





No. of samples- 3

1. Soil pH

Table: Soil reaction ratings (Govt.ind.2011)

Soil reaction ratings	pH
Extremely acidic	<4.6
Strongly acidic	4.6-5.5
Moderately acidic	5.6-6.5
Slightly acidic	6.6-6.9
Neutral	7.0
Moderately acidic	7.1-8.5
Strongly acidic	>8.5

Table: pH readings observed for the soil samples.

Samples	pH readings	Remarks
Sample-1	5.6	Moderately acidic
Sample-2	5.9	Moderately acidic
Sample-3	5.8	Moderately acidic

2. Soil Nitrogen

Table; Nitrogen index with range and remarks (Govt.inf.2011)

Nutrient	Low	Medium	High
Nitrogen	<280 Kg/ha	280-560 Kg/ha	>560 Kg/ha

Table; Calculated amount of nitrogen in soil samples

Samples	Available nitrogen	Remarks
S-1	313.50 kg/ha	Medium
S-2	288.42 kg/ha	Medium
S-3	301.96 kg/ha	Medium

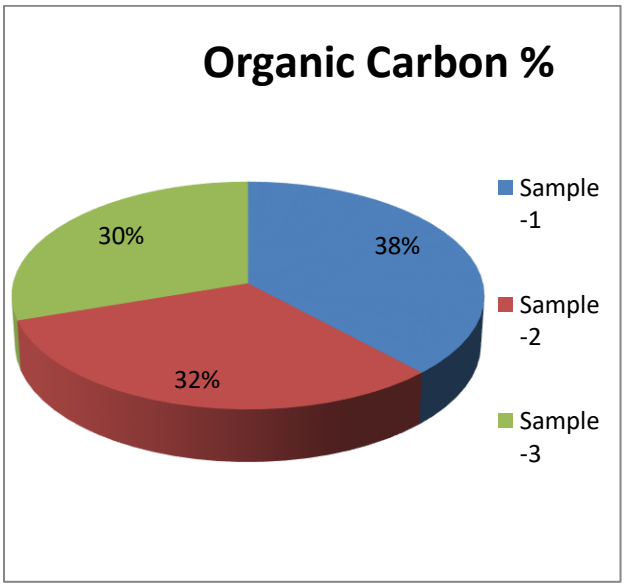
3. Soil Organic Carbon (O.C) and Organic Matter (O.M)

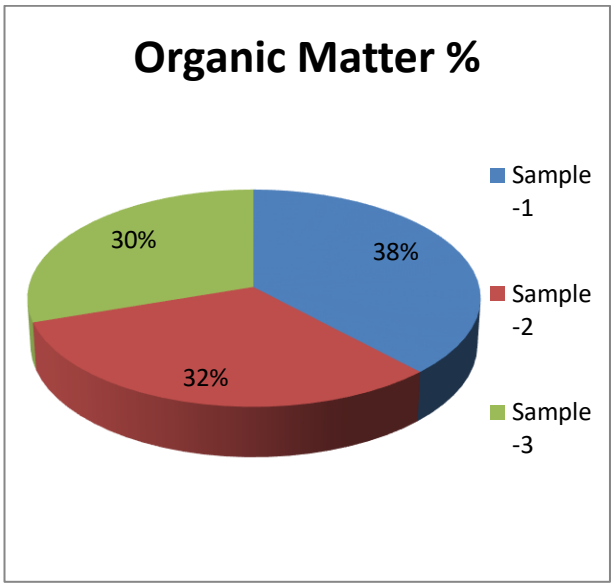
Table: Organic Carbon with range and remarks (Govt.ind.2011)

Nutrients	Low	Medium	High
Organic Carbon	<0.5%	0.5-0.75%	>0.75%

Table: Calculated amount of soil Organic Carbon and soil Organic Matter

Samples	Organic Carbon %	Organic Matter %	Remarks
Sample-1	1.69 %	3.77 %	High
Sample-2	1.41 %	3.15 %	High
Sample-3	1.34 %	2.99 %	High





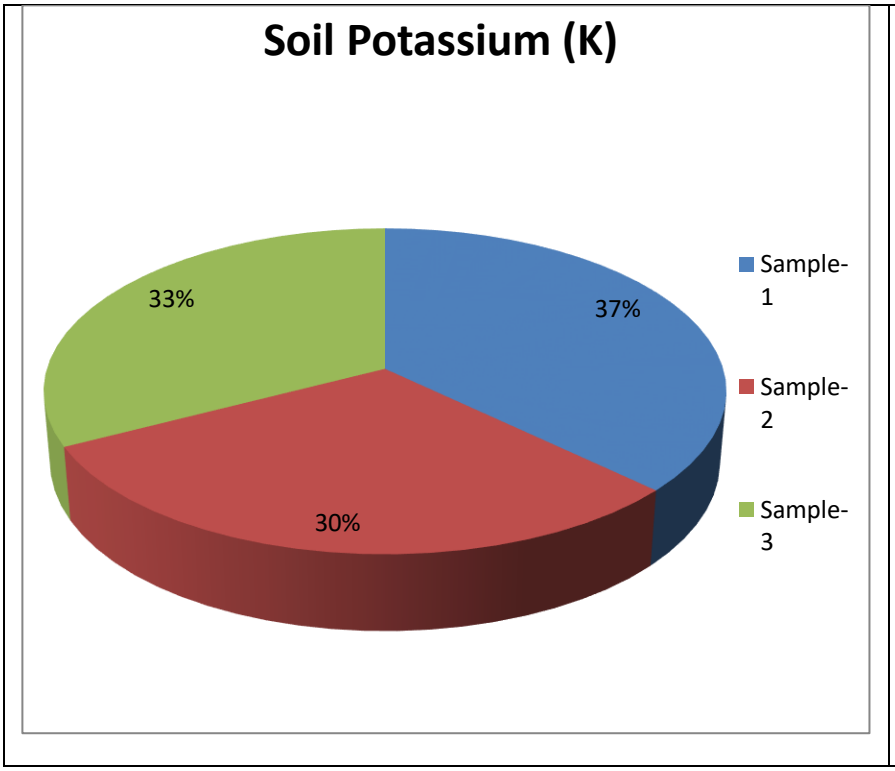
4. Soil Potassium (K)

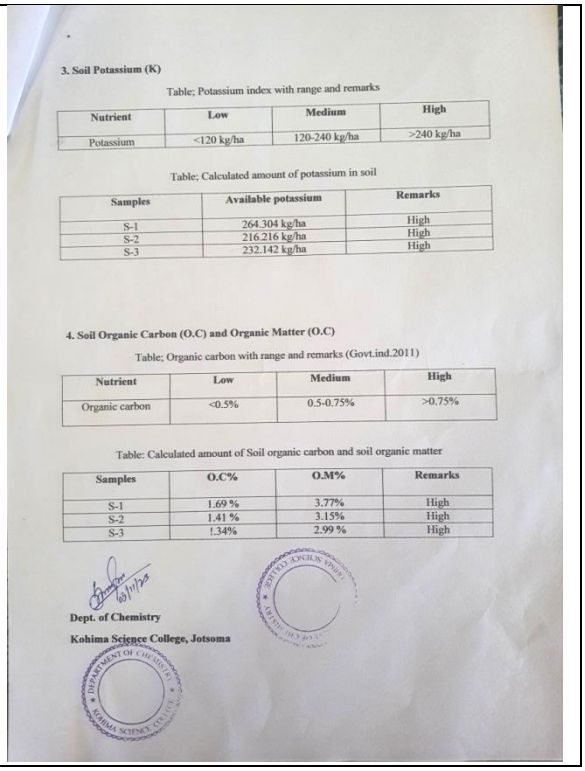
Table: Potassium index with range and remarks

Nutrients	Low	Medium	High
Potassium	<120 kg/ha	120-240 kg/ha	>240 kg/ha

Table: Calculated amount of Potassium in soil

Samples	Available potassium	Remarks
Sample-1	264.304 kg/ha	High
Sample-2	216.216 kg/ha	High
Sample-3	232.142 kg/ha	High





3. Soil Potassium (K)

Table; Potassium index with range and remarks

Nutrient	Low	Medium	High
Potassium	<120 kg/ha	120-240 kg/ha	>240 kg/ha

Table; Calculated amount of potassium in soil

Samples	Available potassium	Remarks
S-1	264.304 kg/ha	High
S-2	216.216 kg/ha	High
S-3	232.142 kg/ha	High

4. Soil Organic Carbon (O.C) and Organic Matter (O.C)

Table; Organic carbon with range and remarks (Govt.ind.2011)

Nutrient	Low	Medium	High
Organic carbon	<0.5%	0.5-0.75%	>0.75%

Table: Calculated amount of Soil organic carbon and soil organic matter

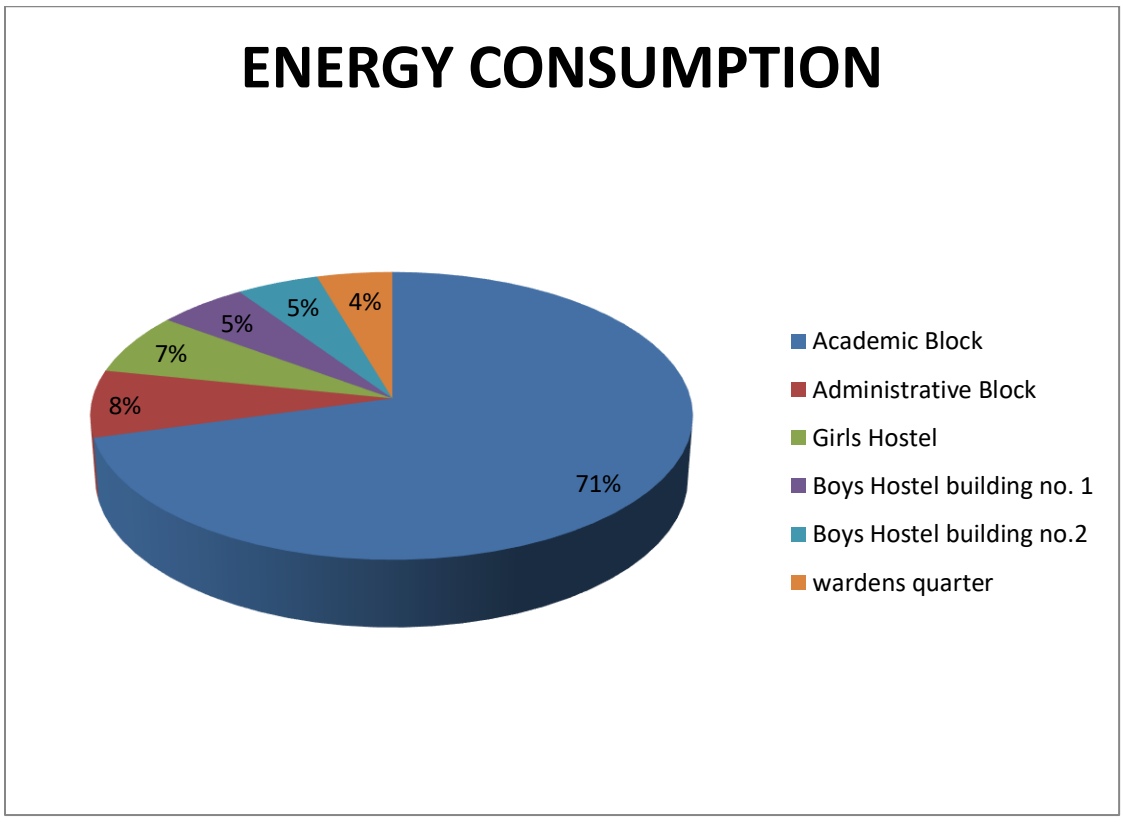
Samples	O.C%	O.M%	Remarks
S-1	1.69 %	3.77%	High
S-2	1.41 %	3.15%	High
S-3	1.34%	2.99 %	High

Dept. of Chemistry

Kohima Science College, Jotsoma

ENERGY AUDIT REPORT FOR COLLEGE CAMPUS

SL. No	Location	Energy consumption per month (kWh)	Energy cost (₹6.8/kWh)
1	Academic Block	481.617	3275
2	Administrative Block	51.47	350
3	Girls Hostel	47.058	320
4	Boys Hostel building no. 1	36.764	250
5	Boys Hostel building no.2	33.823	230
6	wardens quarter	30.882	210
	Totals	681.614	4635



WASTE MANAGEMENT MECHANISM AND IMPLEMENTATION

The institution, in addition to being a center of instructional activity, has a residential campus and a lively community that performs a variety of tasks. Waste generated during the process are managed and controlled by the college and the KMC waste management.

To reduce the risk to human health and the environment, waste is separated at the source before it is degraded, recycled, and disposed of. The following points illustrate the specifics of waste management procedures:

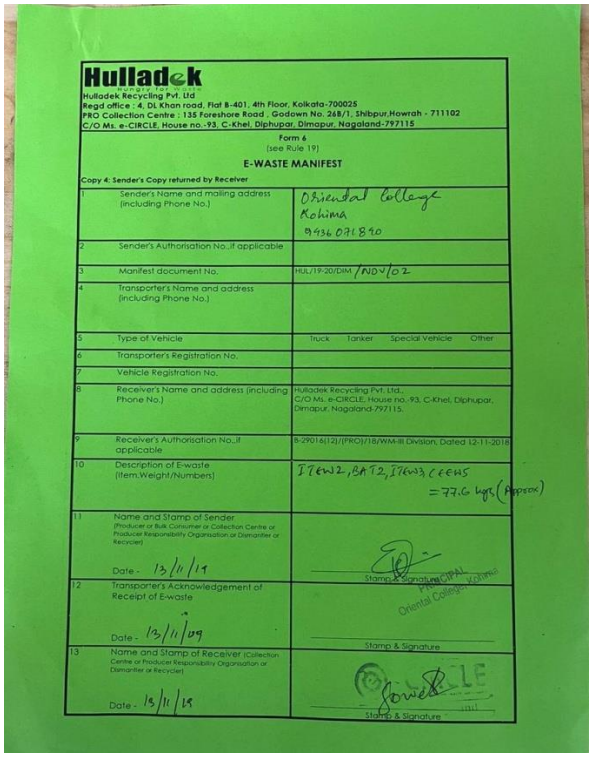
Types of wastes	Constituents	Disposal method
Non bio-degradable solid waste	Glass containers, plastic containers, broken glass wares,	Cleaned and reused, KMC waste management
Biodegradable solid waste	Food waste, vegetables waste, leaves etc	Piggery, land fill
Solid	Filter paper, broken glass waste etc.	Thermal incineration, KMC waste management
Toxic	Metals	Isolated
Water	Urinals, detergents, bathrooms	Proper drainage system
E-waste	Electronic parts, old batteries, old computer parts etc.	KMC waste management

Solid waste: The solid wastes collected from different part of college are mostly composed of paper, broken glass wares, empty plastics/ glass containers. Some of the empty plastic/ glass containers are washed thoroughly and reused for different purpose. The rest of the wastes are disposed-off by thermal incineration (30%) and (70%) managed by the KMC waste management.

Liquid waste: Liquid waste such as urinals, bathroom waste, liquid detergent waste are disposed through proper drainage system.

E-waste: Electronic waste poses as one of the present day hazards. The management of this waste requires expert handling. In partnership with KMC waste management and Hulladek Recycling, the college dispose its E-wastes.

College's registration card and certificate of E-waste recycling



Hulladek
Hungry for Waste
Hulladek Recycling Pvt. Ltd
Regd office : 4, DL Khan road, Flat B-401, 4th Floor, Kolkata-700025
PRO Collection Centre : 135 Foreshore Road , Godown No. 268/1, Shibpur,Howrah - 711102
C/O Ms. e-CIRCLE, House no.-93, C-Khel, Diphupar, Dimapur, Nagaland-797115

Form 6
(see Rule 19)

E-WASTE MANIFEST

Copy 4: Sender's Copy returned by Receiver

1	Sender's Name and mailing address (including Phone No.)	Oriental College Kohima 9436071890
2	Sender's Authorisation No.:If applicable	
3	Manifest document No.	HUL/19-20/DIM/NOV/02
4	Transporter's Name and address (including Phone No.)	
5	Type of Vehicle	Truck Tanker Special Vehicle Other
6	Transporter's Registration No.	
7	Vehicle Registration No.	
8	Receiver's Name and address (including Phone No.)	Hulladek Recycling Pvt. Ltd., C/O Ms. e-CIRCLE, House no.-93, C-Khel, Diphupar, Dimapur, Nagaland-797115.
9	Receiver's Authorisation No.:If applicable	B-29016(12)/(PRO)/18/WM-III Division, Dated 12-11-2018
10	Description of E-waste (Item,Weight/Numbers)	ITEW2, BAT2, ITEW3, CEEW5 =77.6 kgs (Approx)
11	Name and Stamp of Sender (Producer or Bulk Consumer or Collection Centre or Producer Responsibility Organisation or Dismantler or Recycler) Date - 13/11/19	Stamp & Signature PRINCIPAL Oriental College, Kohima
12	Transporter's Acknowledgement of Receipt of E-waste Date - 13/11/19	Stamp & Signature
13	Name and Stamp of Receiver (Collection Centre or Producer Responsibility Organisation or Dismantler or Recycler) Date - 13/11/19	Stamp & Signature

CERTIFICATE
OF E-WASTE RECYCLING

This certificate is proudly presented to

ORIENTAL COLLEGE

for the ethical collection and channelization for recycling of 77.60 kgs of E-waste.

This document certifies that all materials/equipment have been channelized for recycling under standards set down in the E-waste (Management) Rules, 2016 and amendments thereafter.

Chief Executive Officer

Certificate No.:- HUL/19-20/DIM/NOV/02
Date :- 12/01/2020

Hulladek
Hungry for Waste

CPCB REGISTRATION NO.: B-29016(12)/(PRO)/18/WM-III Division

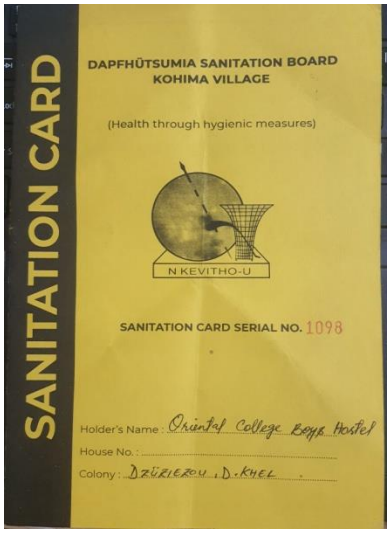
ISO 14001:2015 Certified

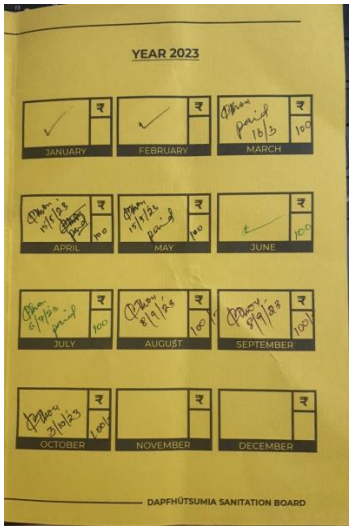
CIRCLE

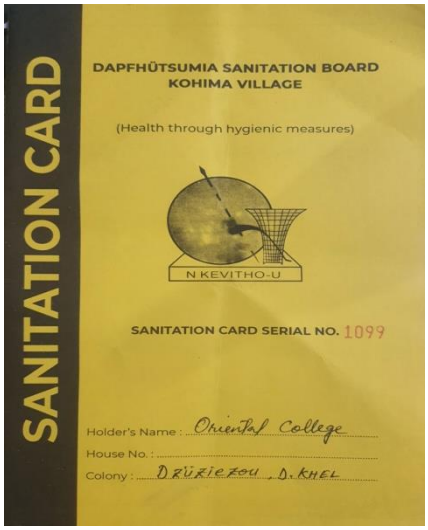
Separate waste bin for biodegradable and non-biodegradable waste

Incineration at boy's hostel	Incineration at girl's hostel
	

College sanitation cards for KMC waste management

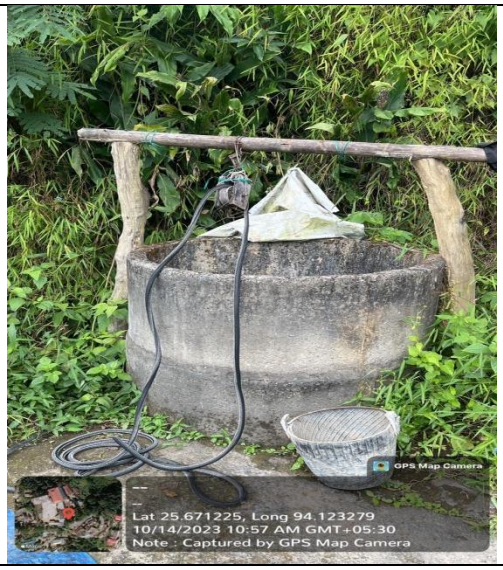


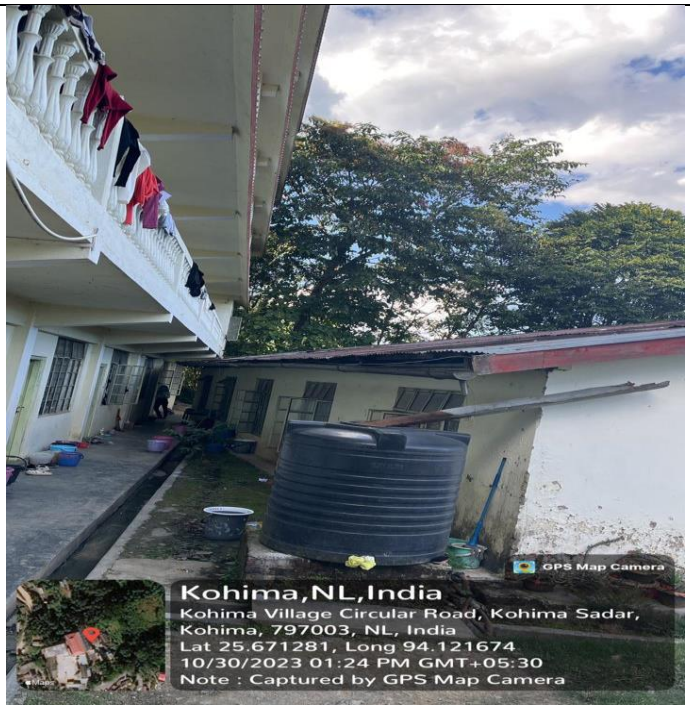




WATER MANAGEMENT:

In the modern world, water is both a luxurious and necessary resource. Groundwater is the primary source of water for the community surrounding Oriental College Kohima. The subterranean spring water provides a constant and reliable water supply to the campus. Subsidiary pipelines carry the water throughout the campus once it is gathered in a main reservoir. Furthermore, there are facilities for collecting rainwater at various locations.It takes an appreciation of the environment and a love of mother nature to teach children the value of conserving water and using it wisely, especially during the dry season. As a result, the college consistently promotes the wise use of the water resources on campus.

Water well in girls hostel	**Water well in boys hostel**
	
Ground water source	**Rain water harvesting in canteen**
	

Rainwater harvestings in the girls hostel (1)	(2)
	

Rainwater harvesting in lower block classrooms


GREEN INITIATIVES OF THE COLLEGE

By including specific courses like Environment Studies in its curriculum, the college promotes environmental awareness. Aside from the curriculum, the college engages in a number of environmentally responsible activities such as:

1. Exposure cum cleanliness drive to Mount Japfü with the theme "Peace is everyone's passion" organized by the Peace Channel Club Oriental College Kohima on 9th March 2016.
2. World Environment day was held on 5th June 2020, by planting Ashe juniper, Alder tree and some other trees in and around the campus, organized and put into effect by the Eco club.
3. On 2nd October 2020 a cleanliness drive was held around the locality as in observation of Swachh Bharat Abhiyan. Organized by the Peace Channel Club, Oriental College Kohima.
4. World water day was held on 22nd march 2021 by cleaning the drainage from the campus till Razhü point, main town Kohima. Organized by the NSS unit, Oriental College Kohima.
5. A debate competition on "Plastic should be banned worldwide" was organized by the commerce department of Oriental College Kohima in commemoration of Earth day on 22nd of April 2022. The students were given the platform to take responsibility of their environment and to promote sustainable development, also to create an environmentally friendly world; it begins with individual, business and governments working together. The world is populating with numerous amount of plastic waste which not only effects human health. The debate competition held on 22nd of April 2022 marked the 52 years of Earth Day celebration.
6. A cleanliness drive was held on 5th June 2023 from the college campus till the main town, Kohima organized by the NSS club and Environmental Science department Oriental College Kohima in collaboration with the Royal Club Kohima, under the banner "Solution to plastic pollution" to beat plastic pollution.

The college has implemented green initiatives in addition to environmental and eco-friendly activities, some of which include:

1. **ANNUAL OBSERVATION OF WORLD ENVIRONMENT DAY ON 5TH JUNE**

2. ORGANIZING CLEANUP CAMPAIGNS FOR THE COLLEGE AND ITS SURROUNDINGS.

3. **CONDUCTING CLEANLINESS DRIVES ON IMPORTANT AND PUBLIC SITES IN KOHIMA DISTRICT**

Cleanning of the Dzü river, Kohima, Nagaland

CONCLUSION

Higher education institutions' engagement in environmental sustainability is getting more widespread as environmental sustainability becomes a more serious concern for the country. Furthermore, a hygienic and well-maintained setting promotes efficient learning and offers a conductive learning atmosphere. As a result, academic institutions are starting to pay greater attention to environmental issues and are introducing more eco-friendly approaches. In order to protect the environment on campus, educational institutions use a variety of approaches to address environmental issues. These include encouraging energy conservation, recycling garbage, reducing water use, and water harvesting. But the institution's pursuit of these initiatives may also have a number of detrimental effects on the environment. Thus by assessing the actual conditions on campus, the Green Audit of Oriental College Kohima analyzes the college's environmental performance in light of its environmental policies and goals.

The college's Green Audit Report can be a helpful tool in figuring out where and how the institution uses the most water, energy, or other resources. From there, the college can think about how to make improvements and save money. Additionally, it can be used to ascertain the kind and amount of waste, which is useful for recycling initiatives or for enhancing waste minimization strategies. The college, the students, and the environment all benefit from green auditing and the application of mitigation measures. It could be a strategy to raise people's knowledge of environmental issues, health, ethics, and values. By using less resources, the Green Audit Report can also help the college save money. Additionally, it will be able to give administration, faculty, students, and staff a greater awareness of the impact that green initiatives have on campus, opening doors for students and instructors to grow in their sense of personal and social responsibility as well as ownership. Therefore, assessing the college's own contributions to a sustainable future is essential.The Green Audit Report makes it abundantly evident that improving the environment is a serious matter, regardless of the tiny step taken in that direction. The work being done at Oriental College Kohima in Nagaland, India, is a significant step in the direction of creating a more livable and sustainable planet for future generations.

GREEN AUDIT'S BENEFITS

1. Assist in maintaining and preserving the environment
2. Use effective resource optimization and waste management techniques to identify the most economical approaches.
3. Verifies compliance with the relevant regulations concerning pollution, ecology, and environmental aspects.
4. Providing an environmentally friendly campus for the college
5. Utilisation of energy efficiently
6. Promotes universal awareness of environmental issues.
7. Understands the influence of human activities on the environment.

Annexure 1: Diversity of Fauna

Mammalian

Oryctolagus cuniculus	Mus musculus	Sciurus carolinensis
		
Cryptomys hottentotus	Bos taurus	Sus scrofa
		
Canis lupus familiaris	Felis catus	Capra aegagrus hircus
		

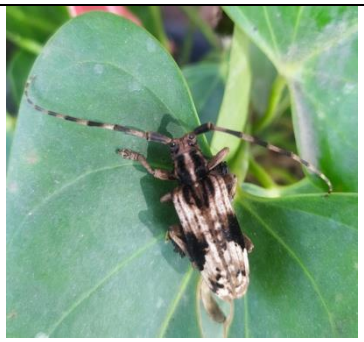
Arthropoda (arachnids**)**		
Argiope anasuja	Aranus inustus	Alopecosa pinetorum
		
Nephila clavate	Tetragnatha extensa	Nephila pilipes
		
Neoscona domiciliorum	Xysticus ferox	Steatoda borealis
		
Leucage argyra	Lariniodess clopetarius	Heteropoda maxima
		

Arthropoda (insecta)

Pantala flavescens	Orthetrum triangulare	Diplacodes trivialis
		
Palpopleura sexmaculata	Ceriagrion fallax	Tenodera sp
		
Nymph of hierodule	Fresh moult (exuviae) on the leaf Adult Tenodera sp on the stem	Cybister lateralimarginalis
		

Ranatra linearis	pantala flavescens nymph	Heptagenia
		
Danaus genutiagenutia	Vanessa indicaindica	Lethe vermasintica
		
Neptis Sappho	Cethosia biblistisamena	Parantica sitasita
		
Papilio helenus	Heliophorus brahma brahma	Acraea issoriaissoria
		

Athyma camacama	Oxya fuscovittata	Locust manilensis
		
Oenopia sexareata	Synonycha grandis	Monochilus sexmaculatus
		
Oenopia kirbyi	Xylotrupes gideon	Odontolabis cuvera
		

Catharsius molossus	Aristobia reticulator	Blepephalus succintor
		
Apomecyna saltator	Thysia wallichi	Xystocera globosa
		
Anomala grandis	Mylabris phaleratus	Orychodes indus
		
Acerius grandis	giant stink bug nymph	Apis mellifera
		

gryllotalpa gryllotalpa	Lasius niger	Polyrhachis ammon
		
Diapheromera femorata	Cicada	Musca domestica
		

AMPHIBIA

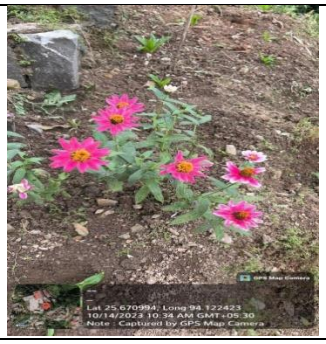
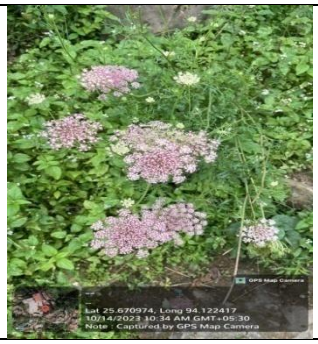
Hoplobatrachus tigerinus(bull frog)	Polypedates leucomystax (four lined frog)	Fejervarya limnocharis (common field frog)
		

Duttaphrynus melanostictus
(common toad)

AVES

Gallus gallus domesticus	Passer domesticus	Pycnonotus barbatus
		

Annexure 2: Diversity of Flora

Dianella tasmanica	Globe amaranth	Zinnia elegans	Daucus carota
			
Euphorbia triaucalli	Latin American fleabane	Juniperus sabina	Ashe juniper
			
Hibiscus sp	*Euphorbia cotinifolia*	Hypoestes phyllostachya	Duranta erecta
			
Laccospadix australasica	Silver fir (pine)	Mangifera indica	Citrus sinensis
			

Argyranthemum frutescens	Calendula officinalis	Euryops chrysanthemoides	Pinus resinosa
			
Rosa chinesis	Ageratum conyzoides	Blumea densiflora	Alnus spaethii
			
Desmodium incanum	Fagopyrum cymosum	Debregereasia longifolia	Glebiomis coronaria
			
Geranium rotundifolium	Leucosceptrum canum	Oxalis montana	Prunus serotina
			

Fagopyrum cymoseum	Erigeron sumatrensis	Erigeron divergens	Nicotina tabacum
			
Cupressus lusitanica	Prunus persica	Rubus ellipticus	Baddleja davidii
			
Cryptomeria japonica	Malus sylvestris	Pteridium aquilinum	Silene armenia
			
Thuja standishii	Lactuca virosa	Ageratina adenophora	Artemisia princeps
			

Calopogonium mucunoides	Bambusa vulgaris	Broussonetia papyrifera	Urena lobata
			

Castilla elastica	Curculigo capitulata	Dryopteris crassirhizoma	Escholzia californica
			
Plantago asiatica	Primula malacoides	Pseudognaphalium affine	Rubus moluccanus
			
Smilax zeylanica	Tetraneuris scaposa	Centeurea cyanus	Cryptomeria japonica
			

Dysolobium pilosum	Indocalamus latifolius	Schizanthus pinnatus	Silene armeria
			
Nuttallanthus floridanus	Pinus resinosa	Solanum jasminoides	Ageratina adenophora
			
Quercus acutissima	trotaeolum	Solanum tubersum	Aloe vera
			
Gynura bicolor	Melia dubia	Fagopyrum cymosum	Plantango