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KUMAUN UNIVERSITY

ENVIRONMENT AUDIT REPORT

2023-2024

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Prepared by
EHS ALLIANCE



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CERTIFICATE



CERTIFICATE

PRESENTED TO

KUMAUN UNIVERSITY

Sleepy Hollow, Nainital-263001, Uttarakhand, India

Has been assessed by EHS Alliance Services for the comprehensive study of environmental impacts on institutional working framework to fulfill the requirement of

ENVIRONMENT AUDIT

ACADEMIC YEAR 2023-24

The environment legal compliances and initiatives carried out by the institution have been verified on the report submitted and were found to be satisfactory.

The efforts taken by management and faculty towards environment and sustainability are highly appreciated and noteworthy.

SIGNATURE



27.02.2025

DATE OF AUDIT

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ACKNOWLEDGEMENT

EHS Alliance Services would like to thank the management of Kumaun University for assigning this important work of Environment Audit. We appreciate the co-operation to the teams for completion of assessment.

First of all, we would like to thank **Prof. D. S. Rawat Vice Chancellor** and **Prof. Neeta Bora Sharma Director, DSB** for giving us an opportunity to evaluate the environmental performance of the campus.

We would also like to thank **Prof. Anita Pande – Chairman, Environment Committee**, for their Continuous Support and guidance, without which the completion of the project would not have been possible. We are also thankful to other staff members who were actively involved while collecting the data and conducting field measurements.

We are also thankful to

Prof. S. S. Bargali

Chairman, Green Audit Committee

Prof. Seema Pande

Chairman, Energy Audit Committee





DISCLAIMER

EHS Alliance Services Audit Team has prepared this report for Kumaun University based on input data submitted by the representatives of university complemented with the best judgment capacity of the expert team.

While all sensible care has been taken in its preparation, details contained in this report have been compiled in good faith based on information gathered.

It is further informed that the conclusions are arrived following best estimates and no representation, warranty or undertaking, express 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.

If you wish to distribute copies of this report external to your organisation, then all pages must be included.

EHS Alliance, its staff and agents shall keep confidential all information relating to your organisation and shall not disclose any such information to any third party, except that in the public domain or required by law or relevant accreditation bodies.

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Signature

LEAD AUDITOR



CONCEPT AND CONTEXT

In India, the process for environmental audit was first mentioned under the Environment Protection Act, 1986 by the Ministry of Environment of forests on 13th march, 1992. As per this act, every person owning an industry or performing an operation or process needs a legal consent and must submit an environmental report or statement.

The National Assessment and Accreditation Council, New Delhi (NAAC) has made it mandatory from the academic year 2019–20 onwards that all Higher Educational Institutions should submit an annual Green, Environment and Energy Audit Report. Moreover, it is part of Corporate Social Responsibility of the Higher Educational Institutions to ensure that they contribute towards the sustainable environment.

In view of the NAAC circular regarding environment auditing, the management decided to conduct an external environment assessment study by a competent external professional auditor.

The term 'Environmental audit' means differently to different people. Terms like 'assessment', 'survey' and 'review' are also used to describe similar activities. Furthermore, some organizations believe that an 'environmental audit' addresses only environmental matters, whereas others use the term to mean an audit of health, safety and environment-related matters. Although there is no universal definition of Environment Audit, many leading companies/institutions follow the basic philosophy and approach summarized by the broad definition adopted by the International Chambers of Commerce (ICC) in its publication of Environmental Auditing (1989).

The ICC defines Environmental Auditing as:

"A management tool comprising a systematic, documented, periodic and objective evaluation of how well environmental organization, management and equipment are performing with the aim of safeguarding the environment and natural resources in its operations/projects."

This audit focuses on the environment legal compliances and implementation of rules defined by MoEFCC or state pollution control board. The concepts, structure, objectives, methodology, tools of analysis, and objectives of the audit are discussed below.



INTRODUCTION

Nature is very precious gift for all life forms. Disturbance in the nature causes environmental Problems. These are increasing day by day as a result of development of urbanization and industrialization on earth. Because of unplanned utilization of resources, our planet is facing tremendous pressure results a sharp rise in temperature. Therefore, there is an urgent need to plan the consumption of the resources in sustainable manner in order to conserve natural resources for future generation.

Sustainable development is becoming popular in the world for saving the earth. Utilizing resources judiciously can save the earth's precious resources. Measurement of environmental components is the most effective step to conserve and protect natural resources.

Environmental auditing had begun in the early 1970s with provision of civil lawsuits for non-compliance with environmental regulations. Environment auditing involves on site visit, collection of samples, performing analyses, and report results to competent authorities.

Industry, the corporate world is initiating auditing for saving natural resources. Academic institutions also can contribute to the preservation and conservation of resources within their premises.

In this, "Environment Audit" report would help everyone to think about preserving resources, show willingness to learn their importance, adopt steps to minimize resource use and set an example for others to follow the path of eco-friendly practices to achieve the goal of sustainable development. Effective implementation of environmental auditing helps in minimization of environmental risks at low cost.





OVERVIEW OF THE UNIVERSITY

Established in 1973, Kumaun University, nestled in Uttarakhand, emerged from the merger of two eminent government colleges, namely, D.S.B. Government P.G. College, Nainital and Almora Government P.G. College. Kumaun University earned its recognition from the University Grants Commission (UGC) in New Delhi under Section 12-B of the UGC Act, 1956. This recognition enabled the University to receive consistent support from the UGC. Over time, the University transformed from a mere institution to a leading academic beacon for thousands in the Kumaun Region of Uttarakhand.

Recognizing the diverse educational needs of Kumaun's remote areas, the State Legislature implemented the SSJ University Act (Act No. 20 of 2019). This decision led to the bifurcation of Kumaun University and the establishment of SSJ University Almora. This pivotal change was officially announced by the Uttarakhand Government on 22nd June 2020 through Order No. 168/XXXVI (3) 2020/ 771/ 2019.



Now, the Kumaun University's sprawling campuses at D.S.B., Nainital and Sir J C Bose at Bhimtal cover an area of approximately 160 acres, featuring state-of-the-art facilities. With affiliations to 20 government colleges, 61 private institutions, and a government-aided college, the university supports around 1,50,000 students, making it Uttarakhand's largest.

A key feature that sets Kumaun University apart is its unwavering commitment to delivering an inclusive educational environment, irrespective of background, race, or faith. The institution diligently fosters a spirit of innovation, civic responsibility, and personal integrity. Its endeavours to bridge the gap between academia, government, and industry are commendable.



Over the past three years, the university has focused on establishing recognized departments for both scientific and social research. This initiative has garnered attention from faculty members and students countrywide. Pre-Uttarakhand state formation, Kumaun University set benchmarks for state universities in terms of academic rigor, student discipline, resource generation, and maintaining a conducive learning environment. Such standards earned the university an 'A' Grade accreditation from the National Assessment and Accreditation Council (NAAC) in 2015.

The university is imparting quality education and research facilities in all ten faculties:

- *Faculty of Arts (Drawing and Painting ,Economics, English ,Geography ,Hindi ,History ,Home science, Music, Political Science,Psychology,Sanskrit, Sociology and Tourism)*
- *Faculty of Science(Botany,Forestry,Chemistry,Computer Science, Geology, Mathematics, Physics, Statistics, Zoology ,Biotechnology, and Information Technology)*
- *Faculty of Commerce (B.com,B.com(Hon.),M.Com)*
- *Faculty of Management(BBA,MBA,P.G. Diploma in Tourism,MBA in Tourism,MBA Executive, MBA Rural Management)*
- *Faculty of Education(B. Ed and M. Ed)*
- *Faculty of Law(LL.B and LL.M,)*
- *Faculty of Technology(B.Pharma, and M.Pharma)*
- *Faculty of Visuals Arts(B.F.A and M.F.A)*
- *Faculty of Agriculture (B.Sc. and M.Sc.)*
- *Faculty of Biomedical Science (M.Sc.)*

Facilities in the campus

LIBRARY: The Central Library of Kumaun University in Nainital was established in the year 1973 and has since grown to house a very rich collection of books spanning various branches of knowledge. Serving as the nerve centre of the university, this library operates under the supervision of a Deputy Librarian, ensuring its smooth and efficient functioning. To enhance user convenience and streamline processes, an automated circulation counter has been made available for the issue, return, and renewal of books. Additionally, the library has adopted an "Open Access system," allowing users greater freedom in accessing its resources. Overall, a well-stocked library like this is considered a valuable asset to the university, providing essential support to students, faculty, and researchers in their academic and research endeavors.

MEDICAL FACILITY: The University has teamed up with leading district hospitals to provide swift medical care for students. Operating a dedicated ambulance van, the University ensures prompt transportation of ailing students to these affiliated hospitals. Additionally, on-campus first aid



services are available to address immediate medical needs. These facilities offer initial care for minor injuries or health concerns, emphasizing the University's commitment to the well-being of its students by guaranteeing access to essential medical services and support when required.

MISSION, VISION & VALUES

MISSION

The mission encompasses several key objectives: Firstly, we aim to provide transformative education that equips students with the knowledge and skills needed to tackle real-world challenges effectively. Secondly, we strive to push the boundaries of knowledge through influential research that addresses societal issues and contributes to the progress of the country. Thirdly, we are committed to fostering an inclusive and diverse learning environment that promotes cultural understanding, ethical values, and a lifelong passion for learning. Lastly, the goal is to produce graduates who are professionally and personally developed, possessing both theoretical knowledge and practical skills, thereby enabling them to excel in their chosen fields and make positive contributions to society.

VISION

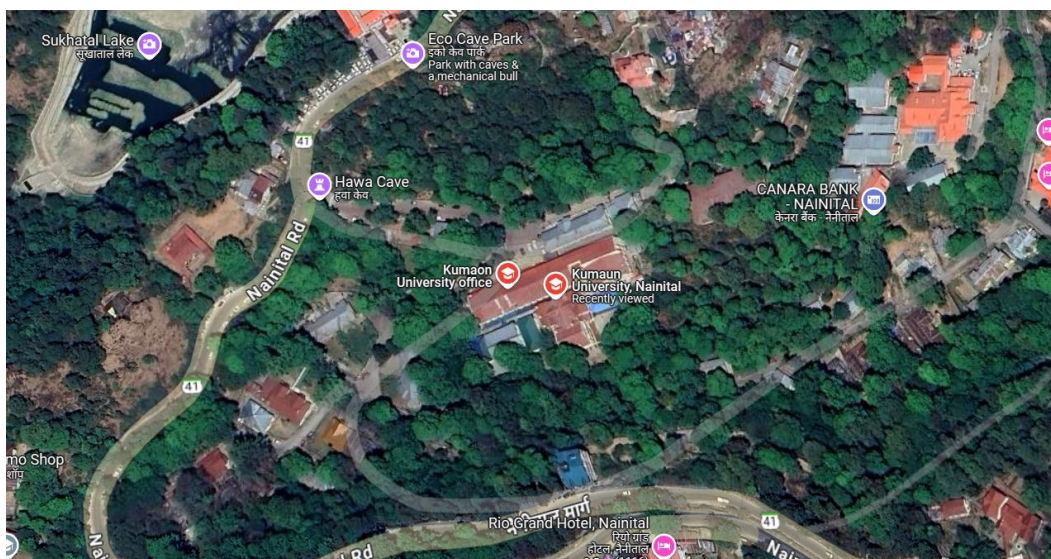
The vision is to become a globally acclaimed institution committed to excellence in education, research, and innovation, while fostering comprehensive growth and cultivating socially conscious global leaders. We aim to equip individuals with the skills and responsibility necessary to thrive as citizens. Transparency and accountability will be fundamental principles in the governance policies, ensuring integrity and trust. Additionally, we will adhere to quality assurance standards aligned with the best practices of higher education, guaranteeing the delivery of excellence in all aspects of the institution.

CORE VALUES

The focus areas encompass various critical aspects: Firstly, we are dedicated to promoting gender equality and empowering women within the institution and broader society. Secondly, we prioritize e-governance and efficient administration to streamline processes and enhance organizational effectiveness. Thirdly, we are committed to implementing green practices to minimize the environmental impact and contribute to sustainability efforts. Lastly, we emphasize cultural and religious tolerance and harmony, fostering an inclusive and respectful community where diversity is celebrated and valued.



Geo Location
Geo Coordinates from Google maps:
29.391152, 79.4461985



AUDIT PARTICIPANTS

On behalf of university

Name	Designation
Prof. D. S. Rawat	Vice - Chancellor
Prof. Neeta Bora Sharma	Director
Prof. Anita Pande	Chairman, Environment Audit Committee
Prof. Seema Pande	Dept. of Physics & Chairman, Energy Audit Committee
Prof. S. S. Bargali	Chairman, Green Audit Committee
Dr. Himanshu Lohani	Dept. of Zoology
Dr. Vinod Kr. Joshi	Dept. of Commerce
Dr. Daleep Kumar	Dept. of Economics
Dr. Hem Bhatt	Dept. of Computer Science
Dr. Deepika Pant	Member, IQAC
Dr. Nandan Singh Bisht	Member, IQAC
Dr. Laxman Rautela	Dept. of Pharmacy, Bhimtal Campus

On behalf of EHS Alliance Services

Name	Position	Qualifications
Dr. Uday Pratap	Lead Auditor	Ph.D., PDIS, QCI – WASH, Lead Auditor ISO 14001:2015
Ms. Pooja Kaushik	Co-Auditor	M.Sc., Field Expert, QCI – WASH



EXECUTIVE SUMMARY

The environment audit is a snapshot in time, in which one assesses campus performance in complying with applicable environmental laws and regulations. Though a helpful benchmark, the audit almost immediately becomes out-dated unless there is some mechanism in place to continue the effort of monitoring environmental compliance. Our approach to promote a Green Campus to inculcate the sustainable value systems among the students, so that they carry the learning and practices them in their future endeavours. This will ensure that Sustainability and Environmental practices get embedded in all the institutions and organizations in the country.

A Green Campus is a place where environmentally friendly practices and education combine to promote sustainability in the campus which ultimately offers an institution the opportunity to take the lead in redefining its environmental culture and developing new paradigms by creating sustainable solutions to environmental, social and economic needs of the mankind.

This is the second environment audit of university for doing their bit towards environmental protection and environmental awareness at local and global front. Audit criterion is environmental cognizance, waste minimization and management, biodiversity conservation, water conservation, energy conservation and environmental legislative compliance by the campus. A questionnaire is used during audit. This audit report contains observations and recommendations for improvement of environmental consciousness.





- Waste Minimizing and Recycling
- Greening Campus
- Energy Conservation
- Water and waste water management
- Air quality management
- Biodiversity Conservation
- Legislative Compliance
- General Practices
- Innovative best practices

Environment Audit Committee: 2023-24

SN	Name of Faculty	Status
1	Prof. Anita Pande	Chairman
2	Prof. Kiran Bargali	Member
3	Dr. Vinita Joshi	Member
4	Dr. Akansha Tewari	Member
5	Dr Diksha Sah	Member
6	Dr. Ruchi Mehrotra	Member
7	Dr. Seeta Deoli	Member
8	Dr Vartika Joshi	Member
9	Dr. Laxaman Rautela	Member



WASTE MANAGEMENT

TYPE OF WASTE ON UNIVERSITY CAMPUS

To create effective waste management plans, university first need to know the type of waste being generated at the campus. Below, we have compiled a list of various kinds of waste commonly generated on institutional campus:

1. **FOOD WASTE** - University campus generates food waste. The average mess and canteen generates approximately 8 kg of food waste a day. The reasons for food waste on an educational campus may be over purchasing food to ensure a sufficient supply and then throwing it away, especially in all hostel messes where plentiful stores are essential. And in the cafeteria or hostel mess, students may pile food onto their trays, find it unappealing once they sit down and dutifully scrape it into the garbage. Immediate attention is given to the food waste minimization techniques.
2. **RECYCLABLE PAPER, CARDBOARD, PLASTIC, GLASS AND CANS** - Campus tends to produce vast quantities of these recyclables. Even in the digital age, many students, professors and staff members still prefer handwritten notes and end up with piles of unwanted paper once their courses and projects are complete. And shipments of necessary items throughout the year are likely to arrive in recyclable plastic and cardboard packaging. The same is sold/auctioned to the scrap vendors time to time.
3. **STUDENT CLOTHES AND HOUSEWARES** - As we have mentioned above, many students find it more convenient to throw away their clothes and dorm furnishings at the end of the year than donate or recycle them.
4. **E-WASTE** - Student and facility electronics often form a large portion of a campus's waste — As campus continually upgrade their computing facilities and office computers to keep up with the latest technology, the old computers have to go somewhere. So do old printers, phones, copy machines and other electronics that receive upgrades over the years. Discarded student electronics often become part of a campus's waste stream as well.
5. **CHEMICAL WASTE** - Chemical waste on a campus may come from numerous sources. Campus laboratories generate waste chemicals, as do cleaning services. The detergents used in campus laundry rooms eventually become waste as well. Much of these chemical substances are hazardous waste under Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 and must undergo specific disposal processes according to state environmental rules and regulations.



6. **MAINTENANCE WASTE** - In the maintenance department, spent paints, solvents, adhesives and lubricants all form potentially hazardous waste. Because they are difficult to recycle, spent incandescent light bulbs usually become landfill waste. Spent fluorescent light bulbs, which contain small amounts of mercury, typically require special handling because of the environmental and health risks they pose.
7. **BIOLOGICAL WASTE** - Biological waste from laboratories will require special handling and disposal as per BMW Rules, 2016. Kumaun University has installed number of furnace to manage lab's waste at different labs.
8. **FURNITURE** - Furniture waste on a campus has a couple different sources. The campus itself may also get rid of old furniture as it modernizes its classrooms, cafeterias, computer labs and study spaces. Annually sold to junk dealer.
9. **BOOKS/MAGAZINES/NEWSPAPERS** - Books accounted for solid waste generation and institutions often generate tons of textbook waste. As courses upgrade to new editions, they may end up throwing their newly obsolete textbooks into the garbage if donation programs cannot use them. Students of Kumaun University donates their text books and notes to junior students, or else are auctioned to reseller.
10. **C & D WASTE** - Expansion of campus building and renovation works result significant amount of construction and demolition waste that should be either used for back filling or disposed off through authorised dumping site by CPCB/SPCB.
11. **SOLID WASTE** - The university is managing solid waste by providing via composting and bio gas plant.
12. **HORTICULTURE WASTE** – University campus has lavished greenery and grounds that results significant horticulture waste which is managed by in-house composting system.



ENERGY CONSERVATION

1. List ten ways that you use energy in your institute. (Electricity, LPG, firewood, others). Using this list, try to think of ways that you could use less energy every day.

A. Electricity

- Lights, Fans, Air conditioners
- Lab equipment
- Computers in labs, faculty rooms & offices
- Electrical Appliances in Pantry

B. LPG

- Cafeteria and hostel mess

Ways to use less energy

- Replacing the conventional bulbs to LEDs
- Solar lights installed on campus streets
- Use of natural light when possible
- Use large appliances together to reduce energy use.
- Cleaning of Filters on regular basis and replace them whenever needed.
- Sealing cracks and gaps and leaks and adding insulation which leads to saving energy up to 10% on heating and cooling.
- Insulate the room spaces
- Turn off the switch on the socket after use.

2. Are there any energy saving methods employed in your institute? If yes, please specify. If no, suggest some

- Electricity is saved by use of LED bulbs for illumination.
- Solar lights are installed
- In Canteen, LPG is saved by use of pressure cookers for cooking food
- Switch off fans and lights when not in use
- Various energy conservation awareness programs for students and staff
- Keep the computers and ACs on power saving mode.

3. How many CFL/LED bulbs has your institute installed?

Approx 80 % of Total Conventional bulbs and tube lights are replaced by LED Lights.

4. Do you run “switch off” drills at institute?



Yes

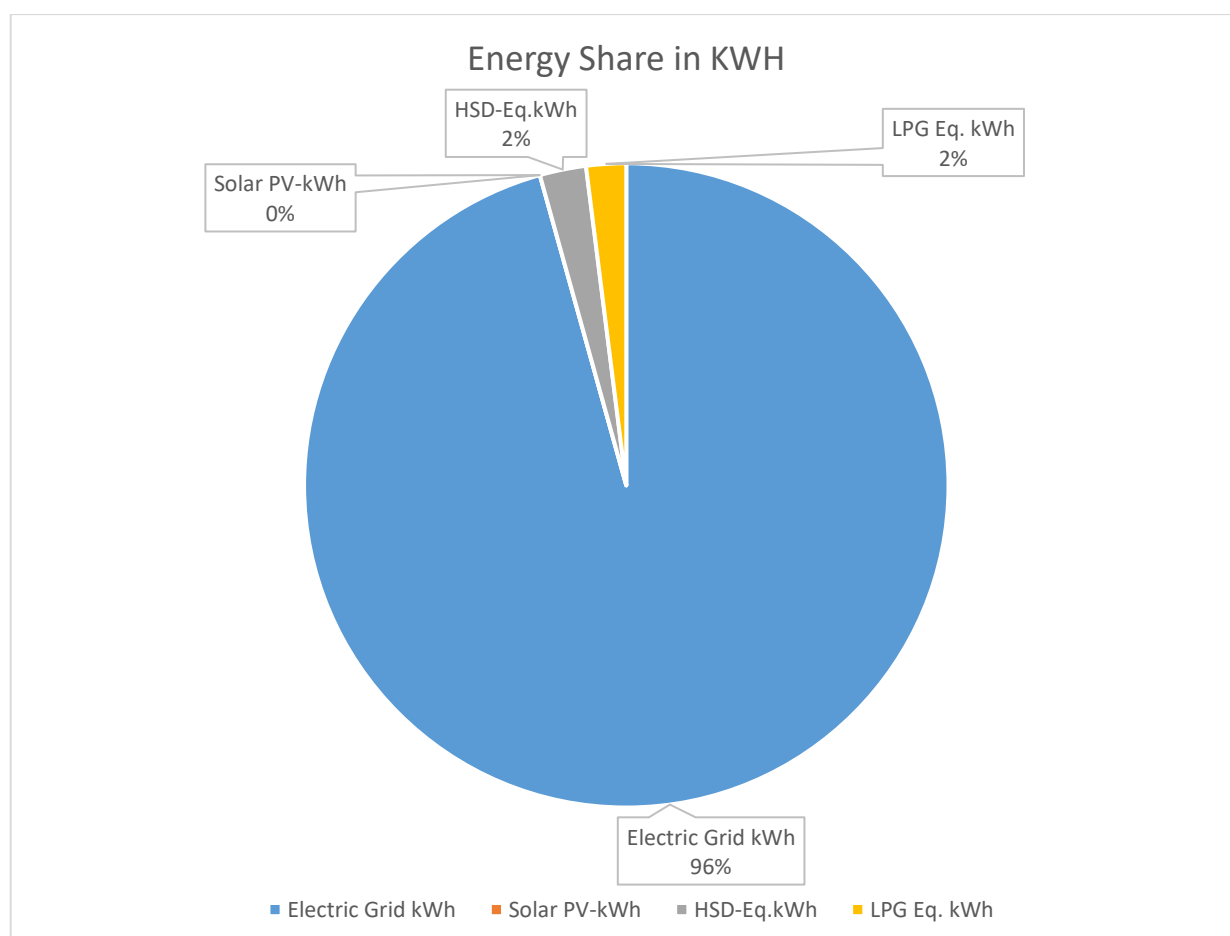
5. Are your computers and other equipment's put on power-saving mode?

Yes

6. Does your machinery (TV, AC, Computer, weighing balance, printers, etc.) run on standby modes most of the time? If yes, how many hours?

Yes, In office hours

Energy Share	kWh	Percentage
Electric Grid kWh	831736.50	95.68%
Solar PV-kWh	0.00	0.00%
HSD-Eq. kWh	20196.87	2.32%
LPG Eq. kWh	17373.22	2.00%
Total -kWh	869306.59	100%





WATER AND WASTE-WATER MANAGEMENT

1. List uses of water in your institute

Basic use of water in campus:

Drinking – 208.90 KL/month

Gardening – 184.84 KL/month

Kitchen and Toilets – 727.84 KL/month

Others – 71.99 KL/month

Hostel – 1044.90 KL/Month

Total = 2238.47 KL/Month

2 How does your institute store water? Are there any water saving techniques followed in your institute?

Available total water storage of the university is 14,000 liters

- Close supervision for water supply system.
- Water Conservation awareness for new students
- Water control valves are provided in each water storage tanks to avoid overflow of water
- Push taps are installed to reduce water wastage
- For close and regular supervision of water supply system within Campus area, a water conservation committee has been constituted.
- For water conservation awareness among students, slogans to save water has been displayed on drinking water units and wash rooms.

3. Locate the point of entry of water and point of exit of waste water in your institute. (Entry and Exit)

Entry - Water comes from Municipal Corporation and Borewell

Exit- From Canteen, Toilets, Hostel, Bathrooms and Labs through covered drainage which is connected to public sewage



4. Write down ways that could reduce the amount of water used in your institute

Basic ways:

- Close the taps after usage
- Water Conservation awareness for new students
- Maintenance and monitoring of valves in supply system to avoid overflow, leakage and spillage
- Push taps are installed to save water

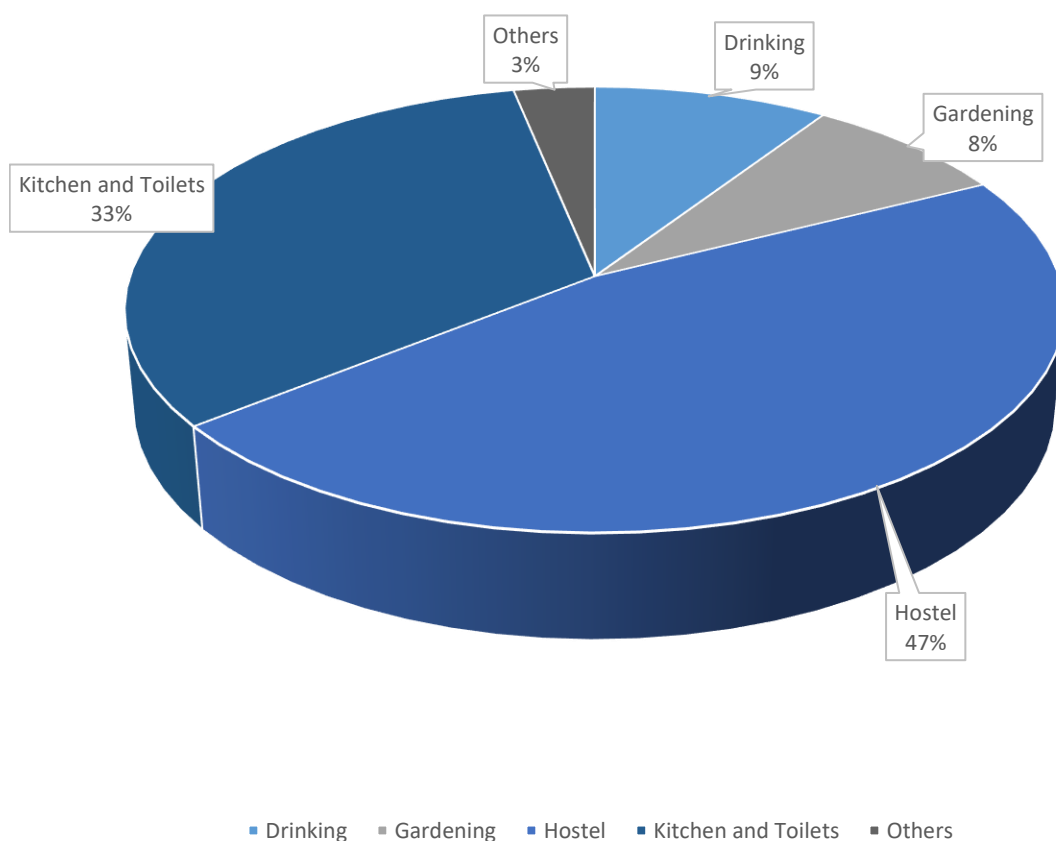
5. Does your institute harvest rainwater?

No

6. Is there any water recycling System?

No

Water Consumption (KL per Month)





AIR QUALITY MANAGEMENT

1. Are the Rooms in Campus Well Ventilated?

Yes, as per National Building Code, guidelines

2. Window Floor ratio of the Rooms?

Very Good, ample daylight utilization because of big windows.

3. What is the ownership of the vehicles used by your campus?

There are 1 bus, 4 cars, and 2 other vehicles in university.

4. Provide details of Institute-owned vehicles?

*1 Bus – Diesel
4 Cars – petrol
2 others – Diesel*

5. PUC done?

Yes

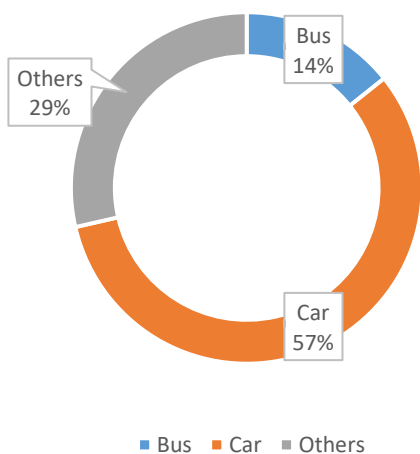
6. Specify the type of fuel used by your campus's vehicles

*1 Bus – Diesel
4 Cars – petrol
2 others – Diesel*

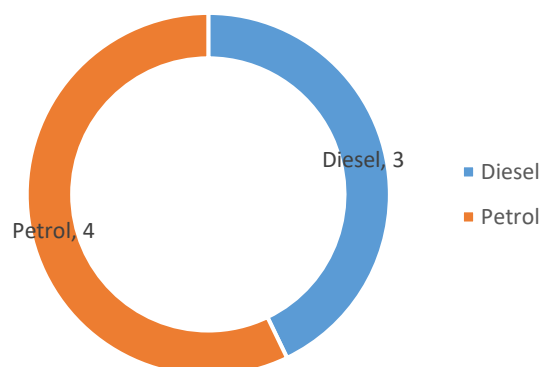
8. Air Quality Monitoring Program (If, Any)

No

Vehicles Count



Vehicles Type





ENVIRONMENT LEGISLATIVE COMPLAINTANCE

1. Are you aware of any environmental Laws Pertaining to different aspects of environmental management?

Yes, university pertains following laws

- 1) Segregation and recycling of Waste (Solid Waste Management Rules 2016)*
- 2) De-concretization of trees (National Green Tribunal Act, 2010)*

2. Does your institute have any rules to protect the environment? List possible rules you could include.

Yes, Kumaun University's- Eco club is conscious about the environment protection and takes proper measures in terms of awareness campaigns, activities, webinar, seminars, etc.

3. Does Environmental Ambient Air Quality Monitoring conducted by the Institute?

No

4. Does Environmental Water and Waste water Quality monitoring conducted by the Institute?

No

5. Does stack monitoring of DG sets conducted by the Institute?

No

6. Is any warning notice, letter issued by state government bodies?

No

7. Does any Hazardous waste generated by the Institute?

No



GENERAL INFORMATION

1. Does your institute have any rules to protect the environment? List possible rules you could include.

- *Periodic Plantation drive*
- *Ban on single use plastic*
- *Biodegradable waste management through Composting and bio gas plant*
- *Water and energy conservation through posters*

2. Are students and faculties aware of environmental cleanliness ways? If Yes Explain

Yes. Kumaun University creates awareness through ECO Club activities, Webinars, cleanliness drives in the community.

3. Does Important Days Like World Environment Day, Earth Day, and Ozone Day etc. eminent in Campus?

Yes, World Environment Day, Ozone Day, Earth Day, World water day, World wetland Day, Earth hour and more are celebrated by campus.

4. Does Institute participate in National and Local Environmental Protection Movement?

Yes

5. Does Institute have any Recognition or certification for environment friendliness?

Certificates are attached in annexure I

7. Does Institution conduct a green or environmental audit of its campus?

This is the second external audit carried out by the university.



INITIATIVES CARRIED OUT BY UNIVERSITY

➤ Solid Waste Management

- University has installed sanitary waste disposal facility by installing incinerator as per CPCB guidelines for the management of sanitary waste -As per Solid Waste Management Rules, 2016
- Systematically engage with the 3Rs of environment friendliness (Reduce, Reuse and Recycle).
- Collect paper waste produced on campus and collaborate with scrap dealers for recycling.
- Reduce use of paper by supporting digitization of attendance and internal assessment records.
- Reduce requirement of printed books by updating the e-books and e-journals collection of the university library.
- Take initiatives to spread awareness amongst students about food wastage and ways of minimizing it
- The habit of reusing and recycling non-biodegradable products
- Organizing workshops for students on solid waste management.
- There is ban on single use plastic and plastic crockery in the campus.

➤ Liquid Waste Management

- Maintain leak proof water fixtures.
- Continued employment of a caretaker to take immediate steps to stop any water leakage through taps, pipes, tanks, toilet flush etc.
- Reuse of wastewater generated by the Reverse Osmosis (RO) system in washrooms.
- Urinals are installed in boy's washroom to reduce water wastage

➤ E-waste Management

- University has a separate storeroom for the safe storage of electronic waste. After a certain interval of time university disposes of the E-waste to concerned agencies through the auction process.

➤ Renewable Energy

- The university is using solar lights for street lights.
- The university believes in using cleaner energy such as LED lighting.

➤ Air Pollution Reduction

- Personal Vehicles (Students) are not allowed in the campus



RECOMMENDATIONS

- Eco-friendly parameters should be included in the purchase of articles and goods for the campus.
- Car-pooling practices can be adopted by campus to minimise air pollution.
- The periodic maintenance schedule for AC's and other electronic appliances to achieve optimised efficiencies.
- Environmental Monitoring i.e. Stack Monitoring of DG sets, Water monitoring, air quality monitoring need to be conducted periodically (as per SPCB).
- Agreement with third party authorised vendors should be done for different types of waste management, such as BMW, paper waste, Plastic waste, etc.
- Reduce carbon emission by reducing the LPG and diesel consumption
- Water metering records should be in practice for water auditing and balancing.
- Borewell permission should be taken from CGWA.

CONCLUSION

This audit involved extensive consultation with all the campus team, interactions with key personnel on a wide range of issues related to environmental aspects. Overall, 50% of university campus is for landscaping. Kumaun University is dedicated to promote the environment management and conservation in the campus and community. The audit has identified some suggestions for making the campus premise more environment friendly. The recommendations and suggestions are mentioned for campus to initiate actions.

The audit team opines that the overall site is well-maintained from environmental perspective. The recommendations in this report highlight many ways in which the university can work to improve its actions and become a more sustainable institution.

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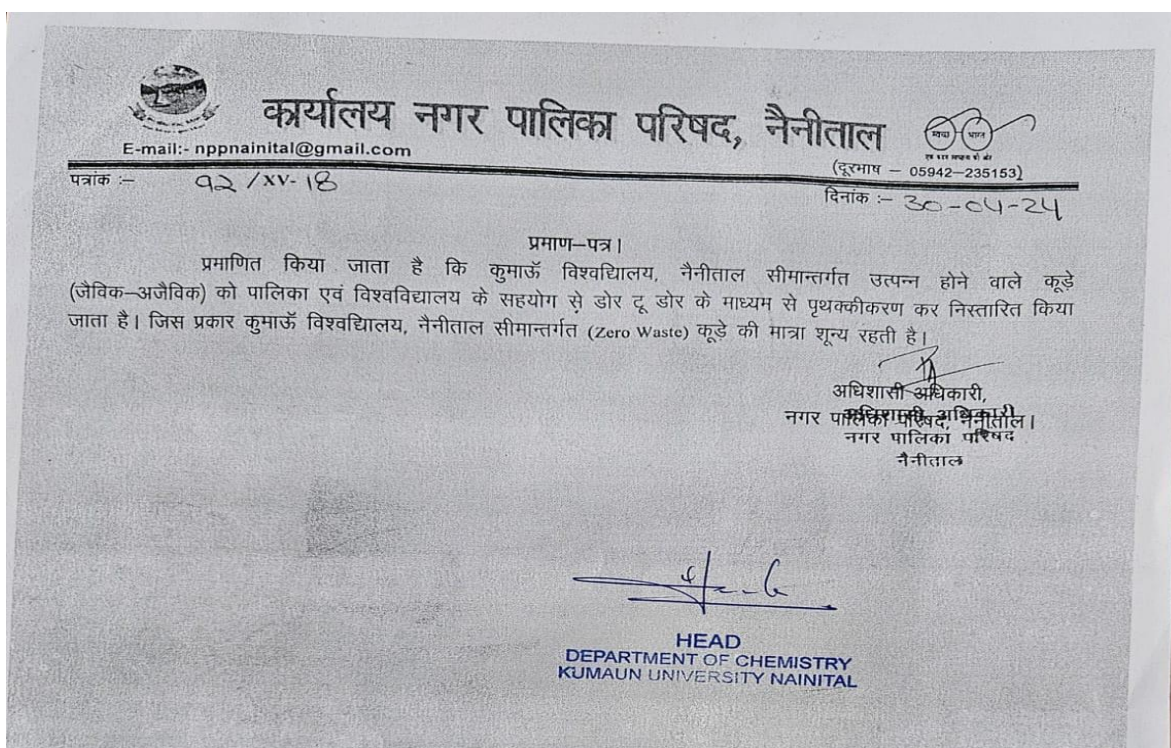


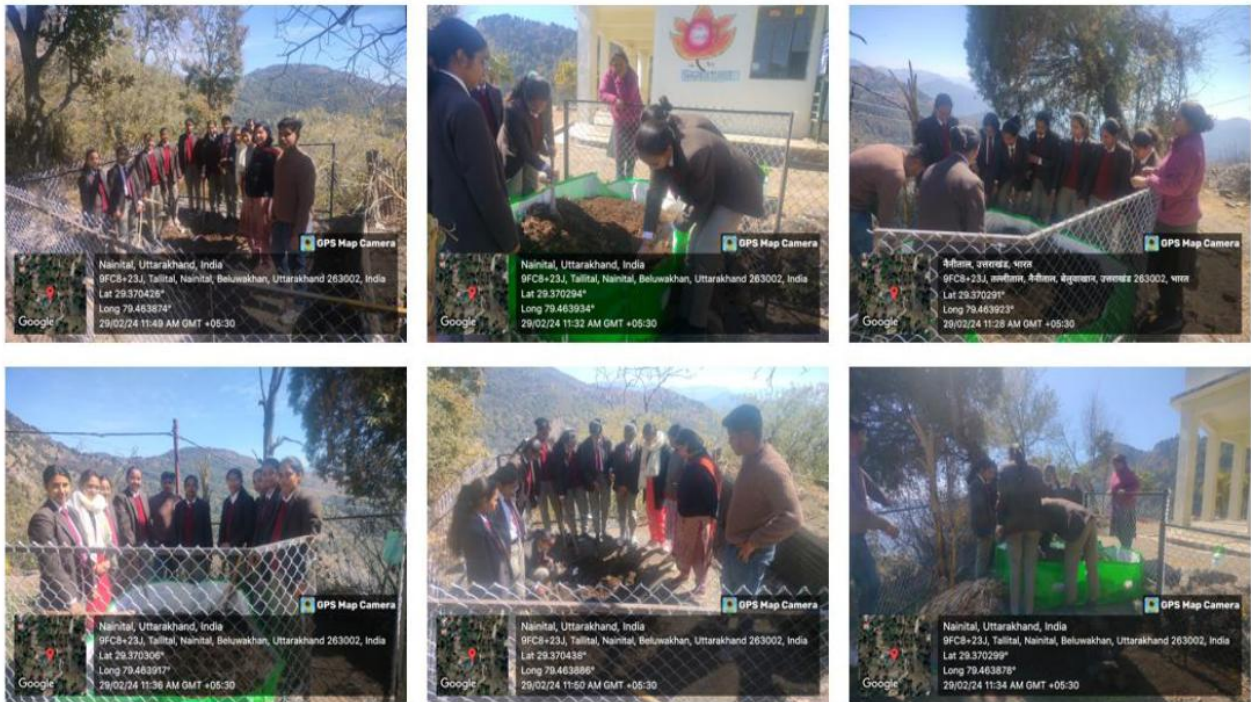
REFERENCES

- The Environment [Protection] Act – 1986 (Amended 1991) & Rules-1986 (Amended 2010)
- The Petroleum Act: 1934 – The Petroleum Rules: 2002
- The Central Motor Vehicle Act: 1988 (Amended 2011) and The Central Motor Vehicle Rules:1989 (Amended in 2005)
- Energy Conservation Act 2010.
- The Water [Prevention & Control Of Pollution] Act – 1974 (Amended 1988) & the Water (Prevention & Control of Pollution) Rules – 1975
- The Air [Prevention & Control Of Pollution] Act – 1981 (Amended 1987) The Air (Prevention & Control of Pollution) Rules – 1982
- The Gas Cylinders Rules – 2016 (Replaces the Gas Cylinder Rules – 1981
- E-waste management rules 2016
- Electrical Act 2003 (Amended 2001) / Rules 1956 (Amended 2006)
- The Hazardous Waste (Management and Handling and Trans-boundary Movement) Rules, 2008 (Amended 2016)
- The Noise Pollution Regulation & Control rules, 2000 (Amended 2010)
- The Batteries (Management and Handling) rules, 2001 (Amended 2010)
- Relevant Indian Standard Code practices



ANNEXURE I — ENVIRONMENTAL RECOGNITION AND COMPLIANCE





Solid Waste Management Training



BMW Waste Disposal Facility

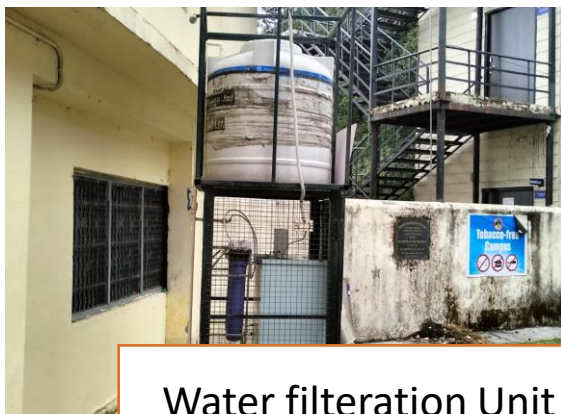
LIQUID WASTE MANAGEMENT

Flow Chart of Waste Water Treatment at Harvesting Tank





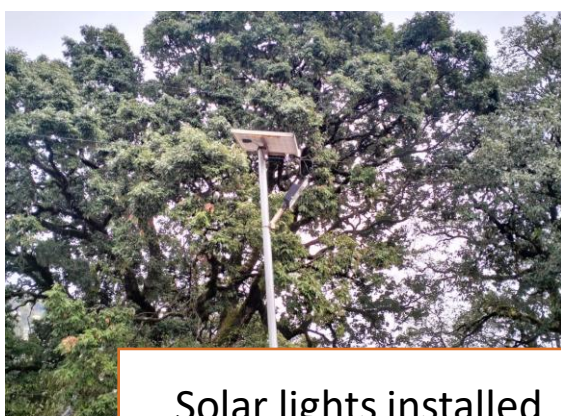
ANNEXURE II – PHOTOGRAPHS OF ENVIRONMENTAL INITIATIVES



Water filtration Unit



Primary water filtration unit



Solar lights installed



Autopush taps for water conservation



Soundproof silent generators



Color-coded dustbins



Biodiversity initiative



Green house nursery



Bio floc fish technology



Green Campus



Cleanliness drive



Campus Nursery

***** **END OF THE REPORT** *****