

Report on

Sustainable Development Goal 12



RESPONSIBLE CONSUMPTION AND PRODUCTION



SDG-12 Responsible Consumption and Production

Swami Rama Himalayan University (SRHU) demonstrates a strong commitment to advancing Sustainable Development Goal (SDG) 12: Responsible Consumption and Production by integrating sustainability into its core values and operations. The University actively fosters eco-friendly practices on campus, including waste reduction, energy efficiency, and the utilization of sustainable resources. Through its academic programs and research initiatives, SRHU cultivates awareness and innovation, empowering students and faculty to devise solutions for sustainable production and consumption. Automated systems have been implemented to optimize the conservation of energy and water resources, while all stakeholders—students, faculty, and staff—are encouraged to use instruments, lights, fans, and air conditioning responsibly. The campus's clean and green environment, supported by extensive plantation and landscaping, helps mitigate air pollution, lower temperatures, and reduce reliance on air conditioning during summer months. Furthermore, the efficient use of advanced laboratories, solar and biogas energy generation, and sewage treatment plants (STPs) reinforces a culture of sustainability and responsible resource management throughout the SRHU campus.

12.1 Research on Responsible Consumption and Production

In alignment with Sustainable Development Goal (SDG) 12, the University conducts innovative research to ensure the sustainable management of energy, water, and waste resources. Key initiatives include the development of advanced water purification technologies and cost-effective wastewater treatment solutions to enhance water quality and accessibility. Researchers focus on designing efficient water recycling systems and sustainable irrigation methods to optimize water usage in both agricultural and urban environments. Through collaborations with government agencies, industries, and international organizations, the University contributes to pioneering solutions that address challenges related to water scarcity, pollution, and sanitation, promoting sustainable development and resilience in water resource management. Faculty members and researchers consistently publish their findings in peer-reviewed journals, showcasing innovative approaches to addressing water and sanitation challenges. These publications focus on critical topics such as advanced water purification technologies, wastewater treatment, rainwater harvesting, groundwater management, and the effects of climate change on water resources.



List of research publications

S.No	Paper Title	Authors	Journal / Book Name	Year	Cite Score	FWCI	DOI
1	Isolation and Characterization of Plant Growth Promoting Endophytes from Linum Usitatissimum	Bhandari, G.; Choudhary, S.; Deogaonkar, A.; Mittal, A.; Gangola, S.	Research in Ecology	2025	1.3		10.30564/re.v7i 2.9406
2	A SWOT analysis of religious tourism in Kedarnath, Uttarakhand, India	Dhyani, A.; Rana, V.; Dimri, G.; Dimri, R.P.; Dhyani, A.	Challenges Opportunities and Limitations of Religious Tourism in the Next Decade	2025			https://www.sco pus.com/pages/ publications/105 013532025?orig in=organization page
3	Rhizobium as a potential biofertilizer and its quality control analysis for sustainable agriculture	Bahuguna, V.K.; Matura, R.; Farswan, A.S.; Sharma, N.; Chaudhary, M.	Journal of Applied Biology and Biotechnology	2025	2.5	1.15	10.7324/JABB. 2025.197428
4	Serving local produce in homestays for socio-economic development in Uttarakhand	Dhyani, A.; Rana, V.; Dimri, G.; Dhyani, A.; Lal, S.K.	Global Practices and Innovations in Sustainable Homestay Tourism	2025		0	10.4018/979-8- 3373-0427- 4.ch011
5	A state-of-the-Art review on edible electronics: Next- generation technologies for biocompatible and ingestible devices	Kataria, P.; Gupta, R.K.; Gupta, A.K.; Tavassoli, M.; Kaur, S.	Trends in Food Science and Technology	2025	34.2	0.5	10.1016/j.tifs.20 25.104880
6	Harnessing nanotechnology for sustainable agriculture: From seed priming to encapsulation	Mahra, S.; Tripathi, S.; Tiwari, K.; Kumar, V.; Sharma, S.V.	Plant Nano Biology	2025	6.6	6.59	10.1016/j.plana. 2024.100124
7	Understanding continuous use intention of technology among higher education teachers in emerging economy: evidence from integrated TAM,	Al-Adwan, A.S.; Meet, R.K.; Anand, S.; Alsharif, R.; Dabbaghia, M.	Studies in Higher Education	2025	1.1	32.95	10.1080/030750 79.2024.234395 5



S.No	Paper Title	Authors	Journal / Book Name	Year	Cite Score	FWCI	DOI
	TPACK, and UTAUT model						
8	Green chemistry revolutionizing sustainability in the food industry: A comprehensive review and call to action	Gupta, A.K.; Boruah, T.; Ghosh, P.; Vijay, K.; Rustagi, S.	Sustainable Chemistry and Pharmacy	2024	8.8	0.81	10.1016/j.scp.20 24.101774
9	Himalayan fruit and circular economy: nutraceutical potential, traditional uses, challenges and opportunities	Ritika; Bora, B.; Ismail, B.B.; Kumar, H.; Gupta, A.K.	Food Production Processing and Nutrition	2024	7	1.74	10.1186/s43014 -023-00220-6
10	Advanced technologies for realizing sustainable development goals: 5G, AI, big data, blockchain, and Industry 4.0 application	Bhatt, A.; Joshi, P.; Joshi, K.P.; Bijalwan, A.	Advanced Technologies for Realizing Sustainable Development Goals 5G AI Big Data Blockchain and Industry 4.0 Application	2024		0.57	10.2174/978981 5256680124010 1
11	Slaughterhouse blood: A state-of- the-art review on transforming by- products into valuable nutritional resources and the role of circular economy	Gupta, A.K.; Fadzlillah, N.A.; Sukri, S.J.M.; Bhuyan, S.; Rustagi, S.	Food Bioscience	2024	6.8	1.43	10.1016/j.fbio.2 024.104644
12	Integrating circular economy in smart cities: Challenges and pathways to sustainable urban development	Trivedi, A.; Trivedi, N.	Smart Cities and Circular Economy: The Future of Sustainable Urban Development	2024		4.4	10.1108/978-1- 83797-957- 820241006



S.No	Paper Title	Authors	Journal / Book Name	Year	Cite Score	FWCI	DOI
13	Biochar production methods and their transformative potential for environmental remediation	Rajput, V.; Saini, I.; Parmar, S.; Naik, B.; Rustagi, S.	Discover Applied Sciences	2024	6.5	1.91	10.1007/s42452 -024-06125-4
14	Nanoparticles as a Tool for Alleviating Plant Stress: Mechanisms, Implications, and Challenges	Kumari, A.; Gupta, A.K.; Sharma, S.; Chun, S.C.; Sivanesan, I.	Plants	2024	7.6	1.59	10.3390/plants1 3111528
15	Sustainable solutions for food security: Evaluating pre- treatment technologies in the growing fruits and vegetables industry of India	Joshi, A.; Gupta, A.K.; Mansi; Rustagi, S.; Preet, M.S.	Sustainable Chemistry and Pharmacy	2024	8.8	1.14	10.1016/j.scp.20 24.101580
16	Green human resource management and environmental performance: mediating role of green innovation— a study from an emerging country	Rana, G.; Arya, V.	Foresight	2024	6.3	21.8	10.1108/FS-04- 2021-0094
17	Impact of Financial Inclusion for Achieving Sustainable Development for Removing Poverty in all Forms: A Review Study from India	Rana, G.; Sharma, R.; Sharma, B.	Sustainable Finance	2024	0.6		10.1007/978-3- 031-67523-2_20
18	Imperative Role of Artificial Intelligence and Nanotechnology in Healthcare Sector for Sustainable Development	Bijlwan, S.	Internet of Medicine for Smart Healthcare	2024			10.1002/978139 4272266.ch6
19	Application of Artificial Intelligence for the Success of Supply Chain Operations in the Age of Data Analytics	Rana, G.; Sharma, R.; Parashar, B.	2024 International Conference on Smart Devices (ICSD 2024)	2024		2.2	10.1109/ICSD6 0021.2024.1075 1637



S.No	Paper Title	Authors	Journal / Book Name	Year	Cite Score	FWCI	DOI
20	Fishers 4.0: Revolutionizing Contemporary Fisheries Management through Industry 4.0 Integration	Joshi, P.; Bhatt, A.; Aggarwal, G.	Proceedings 2024 International Conference on Healthcare Innovations Software and Engineering Technologies (HISET 2024)	2024		1.12	10.1109/HISET 61796.2024.000 54
21	Green Synthesis of Al ₂ O ₃ Nanoparticles from Agro-Waste as a Sustainable Approach	Santhanam, A.; Dhasmana, A.; Sati, A.; Bhandari, G.; Gupta, S.	Proceedings 2024 International Conference on Healthcare Innovations Software and Engineering Technologies (HISET 2024)	2024			10.1109/HISET 61796.2024.000 45
22	United Nations sustainable development goals in the context of hydrological extremes	Uniyal, A.; Kaushik, N.; Uniyal, H.P.	Water Sustainability and Hydrological Extremes Quantity Quality and Security	2024			10.1016/B978- 0-443-21499- 8.00014-3
23	Probiotics in Aquaculture	Chandra, S.; Joshi, N.	Handbook of Aquatic Microbiology	2024		1.58	10.1201/978100 3408543-7
24	Introduction	Gupta, A.K.; Vijay, K.; Naik, B.; Mishra, P.	Edible Flowers: Health Benefits, Nutrition, Processing and Applications	2024			10.1016/B978- 0-443-13769- 3.00001-7
25	Agricultural Innovations using IoT - A Comprehensive Review	Singh, J.N.; Mall, S.; Arthi, T.S.; Srivastava, D.; Hussein, L.	Proceedings IEEE 2024 1st International Conference on Advances in Computing Communication and Networking (ICAC2N 2024)	2024		1.09	10.1109/ICAC2 N63387.2024.1 0895646
26	A review on hospital wastewater treatment technologies: Current management	Bhandari, G.; Chaudhary, P.; Gangola, S.;	Journal of Water Process Engineering	2023	9.6	1.56	10.1016/j.jwpe. 2023.104516



S.No	Paper Title	Authors	Journal / Book Name	Year	Cite Score	FWCI	DOI
	practices and future prospects	Rafatullah, M.; Chen, S.					
27	Novel food materials: Fundamentals and applications in sustainable food systems for food processing and safety	Gupta, A.K.; Nayak, P.; Das, T.; Ranjan, R.; Mishra, S.	Food Bioscience	2023	6.8	0.89	10.1201/978100 3425779-12
28	Energy from Waste: Poterioochromonas malhamensis Used for Managing Dairy Effluent and Producing Valuable Microalgal Lipid	Dhillon, N.; Gupta, S.; Kumar, V.R.; Bhandari, G.; Arya, S.	Journal of Pure and Applied Microbiology	2023	1.6	0.28	10.22207/JPAM .17.2.48
29	Valorization of tender coconut mesocarp for the formulation of ready-to-eat dairy-based dessert (Kheer): Utilization of industrial by-product	Naik, B.; Vijay, K.; Gupta, A.K.	Journal of Agriculture and Food Research	2023	7.5	1.54	10.1016/j.jafr.2 023.100572
30	A Perspective Review on Green Nanotechnology in Agro-Ecosystems: Opportunities for Sustainable Agricultural Practices & Environmental Remediation	Bhandari, G.; Dhasmana, A.; Chaudhary, P.; Malik, S.M.; Sláma, P.	Agriculture Switzerland	2023	6.3	2.83	10.3390/agricult ure13030668
31	Impact of Nanoparticles on Abiotic Stress Tolerance	Bhandari, G.; Chaudhary, S.; Gupta, S.; Gangola, S.	Advances in Nanotechnology for Smart Agriculture Techniques and Applications	2023			10.1201/978100 3345565-12



S.No	Paper Title	Authors	Journal / Book Name	Year	Cite Score	FWCI	DOI
32	Bioleaching: A Sustainable Resource Recovery Strategy for Urban Mining of E-waste	Bhandari, G.; Gupta, S.; Chaudhary, P.; Chaudhary, S.; Gangola, S.	Microbial Technology for Sustainable E Waste Management	2023		6.12	10.1007/978-3- 031-25678-3_10
33	Microbial Biosurfactants and Their Implication Toward Wastewater Management	Rawat, G.; Choudhary, R.; Kumar, V.R.	Handbook of Environmental Chemistry	2023	2.1		10.1007/698_20 22_877
34	Artificial Intelligence in Sustainable Education: Benefits, Applications, Framework, and Potential Barriers	Harish, V., S harma, R., R ana, G., Nay yar, A.	Role of Sustainability and Artificial Intelligence in Education Improvement,	2023		0.86	10.1201/978100 3425779-12
35	Analytical and post analytical phase of an ISO 15189:2012 Certified cytopathology laboratory-a five year institutional experience	Chandra, S.; Kusum, A.; Gaur, D.S.; Chandra, H.	Journal of Cytology	2022		0.29	10.4103/JOC.JO C_90_20
36	Snowmelt Runoff Estimation in Bhagirathi Basin using WinSRM Approach	Thapliyal, A.; Rawat, M.; Sanjeev Kimothi	Applied Computing and Geosciences	2021		0.09	10.1016/j.acags. 2020.100046
37	Approach Towards Sustainable Crop Production by Utilizing Potential Microbiome	Rani, U.; Kumar, M.K.M.; Kumar, V.	Microorganisms for Sustainability	2021	3.1		10.1007/978- 981-15-9912- 5_9
38	Rhizobiont in Bioremediation of Hazardous Waste	Kumar, V.R.; Prasad, R.; Kumar, M.K.M.	Rhizobiont in Bioremediation of Hazardous Waste	2021		1.21	10.1007/978- 981-16-0602-1
39	Bacterially stabilized desert- sand bricks: Sustainable building material	Bisht, V.; Chaurasia, L.; Singh, L.P.; Gupta, S.	Journal of Materials in Civil Engineering	2020	5.6	0.53	10.1061/(ASCE)MT.1943- 5533.0003101

8 | Page



S.No	Paper Title	Authors	Journal / Book Name	Year	Cite Score	FWCI	DOI
40	Effectiveness of a training program about bio-medical waste management	Singh, S.; Dhillon, B.S.; Shrivastava, N.A.K.; Kumar, B.; Bhattacharya , S.	Journal of Education and Health Promotion	2020	2.7	0.59	10.4103/jehp.je hp_704_19
41	Diversity and Function of Microbes Associated with Rhizosphere of Finger Millet (Eleusine coracana)	Choudhary, R.; Rawat, G.; Vijay, K.; Kumar, V.R.	Microorganisms for Sustainability	2020	3.1	0.86	10.1007/978- 981-15-9154- 9_17
42	Perception regarding bio-medical waste management among medical students	Singh, S.; Sharma, N.K.; Mishra, P.	Indian Journal of Community Health	2019	0.4	0.26	https://www.sco pus.com/pages/ publications/850 66020061?origi n=organizationp age
43	Study of the Pre- Analytical Phase of an ISO 15189:2012- Certified Cytopathology Laboratory	Chandra, S.; Chandra, H.; Kusum, A.; Gaur, D.S.	Acta Cytologica	2019	3.2	0.26	10.1159/000494 567
44	Microbiome in Plant Health and Disease: Challenges and Opportunities	Kumar, V.V.; Prasad, R.; Kumar, M.K.M.; Choudhary, D.K.	Microbiome in Plant Health and Disease Challenges and Opportunities	2019		0.33	10.1007/978- 981-13-8495-0
45	Internet of things enabled robot based smart room automation and localization system	Singh, R.; Gehlot, A.N.; Capoor, S.; Sharma, R.; Agarwal, S.	Intelligent Systems Reference Library	2019	2.5	3.76	10.1007/978-3- 030-04203-5_6
46	Probiotics in agroecosystem	Kumar, V.R.; Kumar, M.K.M.; Sharma, S.V.; Prasad, R.	Probiotics in Agroecosystem	2017		1.16	10.1007/978- 981-10-4059-7



S.No	Paper Title	Authors	Journal / Book Name	Year	Cite Score	FWCI	DOI
47	Current scenario of root exudate-mediated plant-microbe interaction	Vishwakarm a, K.; Sharma, S.V.; Kumar, V.R.; Varma, R.K.; Tripathi, D.K.	Probiotics in Agroecosystem	2017		1.59	10.1007/978- 981-10-4059- 7_18
48	Estimation of quality of raw milk (Open & branded) by milk adulteration testing kit	Kandpal, S.D.; Srivastava, A.K.; Negi, K.S.	Indian Journal of Community Health	2012	0.4	0.63	https://www.sco pus.com/pages/ publications/848 67882030?origi n=organizationp age

Evidence: https://srhu.edu.in/wp-content/uploads/2025/11/SDG-Publications.pdf

12.2 Operational Measures

At Swami Rama Himalayan University (SRHU), the institution has established a suite of operational measures to support sustainable consumption and production (indicator 12.2). These include a formal ethical sourcing policy covering food, supplies and equipment, a hazardous-waste disposal and monitoring policy, a waste measurement policy with targets to increase recycling and minimise landfill diversion, and specific policies to minimise single-use plastics and reduce disposable items across campus. Moreover, SRHU has extended these policies to outsourced service providers (e.g., catering, cleaning) and to its supply chain (stationery, building materials). Evidence for each policy is documented and publicly accessible through the University's sustainability web-portal, and each policy was reviewed or updated in the past years.

12.2.1 Ethical Sourcing Policy

The University has an Ethical Sourcing Policy covering food wastage during production, storage, and transport; water conservation, and other supplies, ensuring fair labour, safe working conditions, and environmentally responsible procurement. The policy prioritises locally sourced, sustainable, and low-waste products and applies across all university departments and affiliated units.





Policy for General Waste Conservation

Approved	Board of Management on 12th January 2019
Notification	Notified by Registrar vide notification No. SRHU/Reg/OO/2019-04 (i) dated 15 th January 2019
Reviewed / Revised	Board of Management on 29th March 2022
Notification	Notified by Registrar vide notification No. SRHU/Reg/OO/2022-58 (i) dated 5th April 2022
Next Review	2025-26

Swami Rama Himalayan University Swami Ram Nagar, Jolly Grant- 248 016, Dehradun, Uttarakhand

Swami Rama Himalayan University

Policy for General Waste Management

1. Short Title & Commencement

- 1.1 This Policy shall be called "Policy for General Waste Management" of Swami Rama Himalayan University.
- 1.2 This Policy shall be deemed to have come into force from the date of approval of the Board of Management of the University.

. Purpose

This policy establishes the scope and boundaries of its application within the organization.

Scope

The implementation of policies and efforts pertaining to general waste management operations is expected to foster a favorable disposition towards the environment and provide obstacles in safeguarding our finite resources. The University will implement a "Waste Hierarchical Approach" to sustainably manage waste, minimize landfill disposal, and optimize opportunities for waste reduction, reuse, recycling, and recovery.

Roles and Responsibilities

For effective implementation of the university's waste management policy, the roles, and responsibilities of following various stakeholders shall be as under:

- 4.1 Nodal officer, Waste Management Policy: The Nodal Officer, appointed by the competent authority of the University or their representative, assumes the role of overseeing the waste management policy and ensuring its adherence. The individual will be responsible for overseeing and managing all associated tasks pertaining to the installation and logistical support of waste management activities inside the institution. This includes the coordination of efforts connected to the collection, segregation, transportation, treatment, disposal, and potential reuse of both solid and liquid waste materials generated on campus.
- 4.2 Heads of Departments: The HODs of concerned departments shall be responsible for ensuring:
 - 4.2.1 The practice of collecting and segregating papers, plastics, cardboard, laboratory trash, and hazardous garbage within their respective departments.

SRHU/Policy for General Waste Management

Page 1 of 3

Policy on General Waste Management

Evidence: https://srhu.edu.in/policies-guidelines/policy-for-general-waste-conservation/





Policy for Water Conservation

Approved	Board of Management on 12th January 2019
Notification	Notified by Registrar vide notification No. SRHU/Reg/OO/2019-04 (i) dated 15 th January 2019
Reviewed / Revised	Board of Management on 29th March 2022
Notification	Notified by Registrar vide notification No. SRHU/Reg/OO/2022-58 (i) dated 5 th April 2022
Next Review	2025-26

Swami Rama Himalayan University Swami Ram Nagar, Jolly Grant- 248 016, Dehradun, Uttarakhand

Swami Rama Himalayan University

Policy for Water Conservation

1. Short Title & Commencement

- 1.1 This Policy shall be called the "Policy for Water Conservation" of Swami Rama Himalayan University.
- 1.2 This Policy shall be deemed to have come into force from the date of approval of the Board of Management of the University.

2. Purpose

This policy establishes the framework for sustainable water management at SRHU. It provides guidelines for responsible usage, conservation, recycling, and recharge practices to ensure long-term sustainability of water resources on campus.

SRHU acknowledges its ecological responsibility and aligns its efforts with the UN Sustainable Development Goal 6 (Clean Water and Sanitation). Through this policy, SRHU pledges to:

- 2.1 Promote a culture of water mindfulness and responsible use
- 2.2 Optimize water conservation and management practices in academic, healthcare, residential, and outdoor areas.
- 2.3 Foster awareness through education, research, and community engagement programs.
- 2.4 Contribute to the environmental well-being of the region.

Scope

This policy applies to all stakeholders of SRHU and covers:

- 3.1 Academic and administrative buildings
- 3.2 Hospitals and healthcare facilities
- 3.3 Hostels and staff residences
- 3.4 Laboratories and research facilities
- 3.5 Outdoor areas, irrigation, and landscaping

RHU/Policy for Water Conservation

Page 1 of 4

Policy on Water Conservation

Evidence: https://srhu.edu.in/policy-for-water-conservation/

12.2.3 Policy Waste Disposal – Hazardous Materials

The University maintains the quality standards by following the guidelines issued by government in connection with hazardous waste materials in the laboratories. Hazardous chemicals used in the production of biologicals and used or discarded disinfectants are collected in yellow-colored bags and disposed of by incineration. The batteries that are not in use are returned to the companies as part of the buyback policy. A radioactive waste disposal policy is in place for the radiotherapy department of the medical college. The radioactive material requiring disposal is picked up by the manufacturing company of the machine and returned for disposal.





Biomedical Waste (BMW) Management

Biomedical waste (BMW) at SRHU is managed in strict compliance with regulatory guidelines to ensure safety and environmental responsibility. Segregation begins at the source in every hospital ward, where specific color-coded bins and non-chlorinated bags are placed at designated disposal corners. Plastic disposable waste is collected in red bags, incinerable waste such as contaminated dressings or body-fluid–soaked materials is placed in yellow bags, and sharps, including needles, are immediately discarded into white translucent, puncture-proof containers to prevent injury and contamination. The housekeeping staff collects segregated waste from wards and laboratories and transports it to the central waste collection point. Laboratory waste, such as used vacutainers, is autoclaved on-site before being placed in red bags and handed over for further disposal. All biomedical waste generated across the hospital is ultimately managed through a Common Bio-medical Waste Treatment Facility (CBWTF). From the central collection site, the waste is collected by the Medical Pollution Control Committee (MPCC), authorized by the Uttarakhand Pollution Control Board, for safe handling, transportation, and final treatment.





Segregation of BMW at the source in specific color-coded bins in hospital



Collection of BMW from hospital and disposal at the Bio-Medical Waste Store located within the university





Collection of BMW from the hospital and disposal at the BMW store





Biomedical waste management at SRHU





Policy for Bio-Medical Waste Management

Approved	Board of Management on 12th January 2019
Notification	Notified by Registrar vide notification No. SRHU/Reg/OO/2019-04 (i) dated 15 th January 2019
Reviewed / Revised	Board of Management on 29th March 2022
Notification	Notified by Registrar vide notification No. SRHU/Reg/OO/2022-58 (i) dated 5 th April 2022
Next Review	2025-26

Swami Rama Himalayan University Swami Ram Nagar, Jolly Grant- 248 016, Dehradun, Uttar

SWAMI RAMA HIMALAYAN UNIVERSITY

Policy for Bio-Medical Waste Management

1. Short Title & Commencement

- 1.1 This Policy shall be called "Policy for Bio-Medical Waste Management" of Swami Rama Himalayan University.
- 1.2 This Policy shall be deemed to have come into force from the date of approval of the Board of Management of the University.

Purpose

All Biomedical waste shall be treated, destroyed, or disposed of as per the provisions of Bio Medical Waste (Management & Handling) Rule 2018. Being a statutory requirement, compliance is mandatory. This policy defines the instructions and methodology of Waste Management Process with an aim to

- Ensure the compliance to Statutory Requirements
 Prevent Infection to staff, patient, and attendant's objective
 Safety of the Environment

- 3.1 "Bio-medical waste" or 'BMW' means any waste, which is generated during the diagnosis, treatment or immunization of human beings or animals or research activities pertaining thereto or in the production or testing of biological or in health camps, including the categories mentioned in Schedule I appended to these rules;
- 3.2 HIV means Human immunodeficiency virus.
- 3.3 ESBL means Extended spectrum beta-lactamase
- 3.4 VRE means Vancomycin-resistant enterococci.
- 3.5 ICD means Intercostal Drain.
- 3.6 WHO means World Health Organizati
- 3.7 CPCB means Central Pollution Control Board

Preamble

4.1 Hospitals are meant to ensure community health. Presently a lot of attention is being paid to the disposal of medical waste. The problem of medical waste disposal has acquired a serious proportion in urban areas of India. Infectious waste can transmit numerous diseases in the community and put those who handle waste, and live in its proximity, at risk.

SRHU/ Policy for Bio-Medical Waste Management

Policy for Bio-Medical Waste Management

Evidence: https://srhu.edu.in/policies-guidelines/policy-for-bio-medical-waste-management-2/



Policy on Radiation Safety

Provided at Himalayan Hospital

(A Constituent Unit of Swami Rama Himalayan University) SWAMI RAM NAGAR, JOLLY GRANT, NEARDOIWALA, PIN: 248016

Tel: 0135-2471239

Email: ms.hh@srhu.edu.in/ms.cri@srhu.edu.in

ion safety programme is the property of SWAMI RAMA HIMALAYAN UNIVERSITY and all recip whom policy is issued are obliged to treat this document confidentially. No part of this policy in any form may be print ission from Chief Medical Superinte

Reviewed By	Approved By
Dr S. Raghuvanshi	Dr. S.L. Jethani
Prof & HOD, Radiology	Chief Medical Superintendent
Signature:	Signature:
	Dr S. Raghuvanshi Prof & HOD, Radiology

Policy on Radiation Safety

Evidence: https://srhu.edu.in/wp-content/uploads/2025/11/Policy-on-Radiation-Safety.pdf





Policy for Condemnation and/or Disposal of Movable Assets

Approved	Board of Management on 12th January 2019	
Notification	Notified by Registrar vide notification No. SRHU/Reg/OO/2019-04 (i) dated 15 th January 2019	
Reviewed / Revised	Board of Management on 29th March 2022	
Notification	Notified by Registrar vide notification No. SRHU/Reg/OO/2022-58 (i) dated 5 th April 2022	
Next Review	2025-26	

Swami Rama Himalayan University

Swami Ram Nagar, Jolly Grant- 248 016, Dehradun, Uttarakhand

Swami Rama Himalayan University

Policy for Condemnation and/or Disposal of Movable Assets

1. Short Title & Commencement

- 1.1 This Policy shall be called "Policy for Condemnation and/or Disposal of Movable Assets" of the University.
- 1.2 This Policy shall come into force from the date of approval of the Board of Governors of the University.

2. Objective of the Policy

- 2.1 To develop a mechanism, incorporate efficient & economic practices for Condemnation & adherence to relevant laws, regulations, safety and environmental considerations while disposal.
- 2.2 To ensure proper documentation and accounting of Condemned Assets and the financial implications of their disposal.
- 2.3 To establish cost effective structure for life cycle of goods and optimum resource utilization and reutilization.

3. Definitions

Unless it is repugnant to the context,

- 3.1 "Act" means Uttarakhand Private Universities Act, 2023 (Act no. 2 of 2024).
- 3.2 "AMC" means Annual Maintenance Contract.
 3.3 "Assets" means a Tangible or intangible asset of the University. Tangible Assets include machinery, equipment, furniture/ fixtures, IT Hardware etc. while intangible assets include Software, Licenses etc.

- include Software, Licenses etc.

 3.4 "CMC" means Comprehensive Maintenance Contract.

 3.5 "Authority" means an authority of the University as defined in the Act or Statutes.

 3.6 "Committee" means duly Constituted Committee.

 3.7 "Condemnation" means the process of discarding the institutional movable assets which are unfit for use as per the decision of the Institute.

 3.8 "Constituent Academic Unit" means a College/School/Institution maintained & managed by the University.

 3.9 "December 2015 of the University of the University of the Constituent Academic unit.

- managed by the University.

 3.9 "Department" means the department of the University or its constituent academic unit.

 3.10 "Disposal" means the process of liquidating the assets which are unfit for use according to its value by appropriate authority after the condemnation.

 3.11 "EID" means Equipment Identification Data.

 3.12 "EMI" means Equipment Identification Data.

 3.13 "E-waste" means electronic waste (or e-waste). Also commonly known as Waste Electrical and Electronic Equipment (WEEE) or end-of-life (EOL) Electronics.

 3.14 "Officer" means officers of the University.

 3.15 "Ordinances" means ordinances of the University.

 3.16 "Sponsoring Body" means Himalayan Institute Hospital Trust.

 3.17 "Regulations" mean the Regulations of the University.

 3.18 "Statutes" means the statutes of the University.

SRHU/Policy for Condemnation and/or Disposal of Movable Assets Page 1 of 12

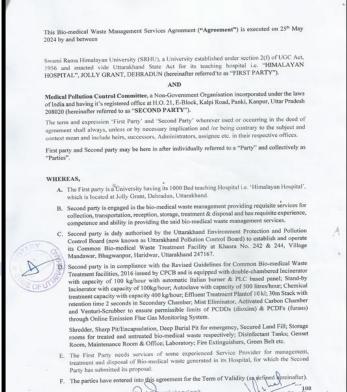
Policy for Condemnation and/or Disposal of movable assets

https://srhu.edu.in/policies-guidelines/policy-for-condemnation-andor-disposal-of-movable-**Evidence:** assets/



Vishal Singh





Evidence: MOU Link



12.2.4 Policy Waste Disposal – Landfill Policy

The University effectively manages solid waste by segregating biodegradable and non-biodegradable materials at the source, using green and black bins placed throughout the campus. Housekeeping staff collect the waste daily in color-coded bags and transport it to a central collection site. Biodegradable waste is composted on-site to create manure, while a biogas plant generates biogas from cow dung and organic kitchen waste.



Policy for General Waste Conservation

Approved	Board of Management on 12th January 2019	
Notification	Notified by Registrar vide notification No. SRHU/Reg/OO/2019-04 (i) dated 15 th January 2019	
Reviewed / Revised	Board of Management on 29th March 2022	
Notification	Notified by Registrar vide notification No. SRHU/Reg/OO/2022-58 (i) dated 5th April 2022	
Next Review	2025-26	

Swami Rama Himalayan University Swami Ram Nagar, Jolly Grant- 248 016, Dehradun, Uttarakhand

Swami Rama Himalayan University

Policy for General Waste Management

1. Short Title & Commencemen

- 1.1 This Policy shall be called "Policy for General Waste Management" of Swami Rama Himalayan University.
- 1.2 This Policy shall be deemed to have come into force from the date of approval of the Board of Management of the University.

Purpose

This policy establishes the scope and boundaries of its application within the organization.

Scope

The implementation of policies and efforts pertaining to general waste management operations is expected to foster a favorable disposition towards the environment and provide obstacles in safeguarding our finite resources. The University will implement a "Waste Hierarchical Approach" to sustainably manage waste, minimize landfill disposal, and optimize opportunities for waste reduction, reuse, recycling, and recovery.

4. Roles and Responsibilities

For effective implementation of the university's waste management policy, the roles, and responsibilities of following various stakeholders shall be as under:

- 4.1 Nodal officer, Waste Management Policy: The Nodal Officer, appointed by the competent authority of the University or their representative, assumes the role of overseeing the waste management policy and ensuring its adherence. The individual will be responsible for overseeing and managing all associated tasks pertaining to the installation and logistical support of waste management activities inside the institution. This includes the coordination of efforts connected to the collection, segregation, transportation, treatment, disposal, and potential reuse of both solid and liquid waste materials generated on campus.
- 4.2 Heads of Departments: The HODs of concerned departments shall be responsible for ensuring:
 - 4.2.1 The practice of collecting and segregating papers, plastics, cardboard, laboratory trash, and hazardous garbage within their respective departments.

SRHU/Policy for General Waste Management

Page 1 of

Policy on general waste management

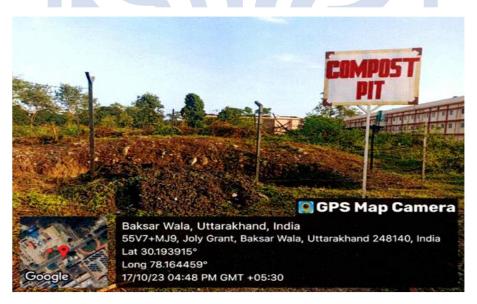
Evidence: https://srhu.edu.in/policies-guidelines/policy-for-general-waste-conservation/







Collection of solid (general) waste from residences and hostels



Compost pit for disposal of biodegradable waste





Black and Green Bins located at various locations in the university

Bins for waste collection/segregation



Swami Rama Himalayan University

(Ecd. Under section 2(f) of UGC Act, 1936 vide Untarabbana Sta Swami Ram Nagar, Jolly Grant, Dehradun 248016 Uttarabhand, India



स्वामी राम हिमालयन विश्वविद्यालय (वृत्येश अधिकर, १५६ को का २ (१) के अंति ज्ञाकर एक अधिक इर स्वांत) स्वामी राम नगर, जौलीग्रान्ट, वेहरादून 248016 जतराखण्ड, भारत

To whom it may concern

This is to certify that leftover food waste is collected from various constituent academic units and residences of Swami Rama Himalayan University campus by the housekeeping department.

This leftover food is regularly sent to compost pits located inside the campus for converting it into manure. It is utilized for gardening purpose withing the campus. In the academic year 2023-2024, 47305 Kg leftover food is collected and converted into manure.

Girish Uniyal

Head (E & M)

Infrastructure Development & Maintenance department

Date :- 10/07/2024



Tel: 91-135-2471102, 2471140 Fax: 91-135-2471141 Email: info@srhu.edu.in Website: www.srhu.edu.in



MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding ("MoU") is entered on this date 4/Gust 4/
("the Effective Date") at Dehradun, Uttarakhand, India 2422

BETWEEN

Swami Rama Himalayan University, Swami Ram Nagar, Jolly Grant, Dehradun, Uttarakhand (India)

And

Social Development for Communities (SDC) Foundation, Dehradun, Uttarakhand (India)

MEMORANDUM OF UNDERSTANDING

Swami Rama Himalayan University (SRHU) endeavors to transform lives through holistic approach to education, providing integrated health care services and effective rural development and social outreach programs. SRHU has an outstanding history of community based activities, running profound public health education programs and committed participation in national health programs. With its various peripheral health centers and collaboration with NGOS & international bodies.

SRHU which expression shall unless repugnant to the context include its successors representatives and permitted assigns OF THE FIRST PARTY.

Social Development for Communities (SDC) Foundation is a Dehradun, Uttarskhand based not for profit engaged in communication, capacity building and community mobilization. Founded in 2017, SDC has been working closely on issues of sustainable development and governance. SDC Foundation has worked with a range of stakeholders – government institutions, private corporations, think-tanks, international development agencies, media and citizen groups.

SDC Foundation which expression shall unless repugnant to the context include its successors, representatives and permitted assigns OF THE SECOND PARTY.

(SRHU and SDC Foundation are hereinafter collectively referred to as "Parties" and individually as "The First Party" and "The Second Party" respectively.)

A. SCOPE OF AGREEMENT

q____

Attagal

This Memorandum of Understanding provides for a flexible and overarching framework for collaboration for research and academic activities between both parties that can be conducted

The scope of activities shall include, but not be limited to, partnering for citizen engagement and public participation initiatives,; organizing knowledge sessions like policy dialogues, seminars, workshops in the domain of environmental conservation, waste management, sustainable development goals, climate change, circular economy, disinter resilience or any other socio-economic-development subject relevant to Ultarakhand and/or the larger Himalayan region; aiding policy formulation process of the government; designing courses

B. AREAS OF COLLABORATION

during the period of the agreement.

- SRHU and SDC Foundation will work in the areas of sustainable development goals (SDG), climate change, waste management, circular economy, sustainable urbanization, rural development and citizen engagement.
- SRHU and SDC Foundation will work to promote scientific temper and create awareness in Uttarakhand.
- 3- SRHU and SDC Foundation will undertake social audits on citizen-centric issues. The findings from such audits will be used to aid the policy formulation process in the state of Uttarakhand.
- 4- SRHU and SDC Foundation will work together towards adoption of technology and building social solutions.
- 5- SRHU and SDC Foundation will work together on key central schemes like Swachh Survekshan, Smart Cities Mission, Namami Gange and others.
- 6- SRHU and SDC Foundation are interested in exploring opportunities for joint bidding for Consultancy/Nen Consultancy assignments as members of a Consortium and in accordance with the terms and conditions of the bid documents of the respective bidding process. The Pretries shall enter into a Joint Bidding Agreement forming a consortium as per need of the bidding process. In case of an award of a Contract, SRHU and SDC Foundation do hereby agree that they shall be jointly and severally responsible for executing the contract.

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AHayal

Link: MOU Link

23 | Page



12.2.5 Policy for Minimization of Plastic Use

To further reduce environmental pollution, SRHU has undertaken a strong Plastic-Free Campus Initiative. The use of single-use plastics has been restricted, and "Plastic-Free Campus" signage has been installed to raise awareness among students, faculty, and visitors. In addition to behavioral change, innovative projects like the Plastic Waste Bank and plastic-to-diesel recycling initiative demonstrate the University's commitment to responsible plastic disposal and environmental sustainability. From 2021 to 2025, Swami Rama Himalayan University recycled a total of 5,600 kg of plastic in collaboration with CSIR-IIP, its Social Technology Partner for the Plastic-to-Diesel Lab project. This initiative, launched alongside the 'Plastic Waste Bank' in 2022, reflects the University's commitment to sustainable waste management and innovative recycling solutions. Through this partnership, collected plastic waste was processed into fuel, supporting both environmental conservation and technological advancement in plastic waste utilization.



Policy for Plastic and Disposable Items Minimization

Approved	Board of Management on 12th January 2019	
Notification	Notified by Registrar vide notification No. SRHU/Reg/OO/2019-04 (i) dated 15th January 2019	
Reviewed / Revised	Board of Management on 29th March 2022	
Notification	Notified by Registrar vide notification No. SRHU/Reg/OO/2022-58 (i) dated 5th April 2022	
Next Review	2025-26	

Swami Rama Himalayan University Swami Ram Nagar, Jolly Grant- 248 016, Dehradun, Uttarakhand

Swami Rama Himalayan University

Policy for Plastic and Disposable Items Minimization

1. Short Title & Commencement

- 1.1 This Policy shall be called the "Policy for Plastic and Disposable Items Minimization" of Swami Rama Himalayan University.
- This Policy shall be deemed to have come into force from the date of approval of the Board of Management of the University.

This policy outlines Swami Rama Himalayan University's commitment to minimizing the use of plastic and disposable materials across its operations and supply chain. The goal is to reduce environmental impact, promote sustainable alternatives, and align with global efforts to reduce plastic waste

Scope

This policy applies to:

- All departments and employees of Swami Rama Himalayan University.
- Contractors, vendors, and suppliers engaged with Swami Rama Himalayan
- University.
 All activities, products, and services where plastic or disposable materials are

Goals

The policy goals are to:

- 4.1 Eliminate unnecessary single-use plastics (e.g., straws, cutlery, cups,
- packaging).
 Replace disposable items with reusable, biodegradable, or recyclable
- Encourage suppliers to adopt similar reduction measures.
- Promote awareness and training among employees and stakeholders on responsible plastic use.

 Monitor and report progress on plastic reduction annually.

Implementation Measures

5.1 Internal Practices

- 5.1.1 Phase out single-use plastics in offices, cafeterias, and events 5.1.2 Encourage the use of refillable bottles, cups, and containers.

SRHU/Policy for Plastic and Disposable Items Minimization

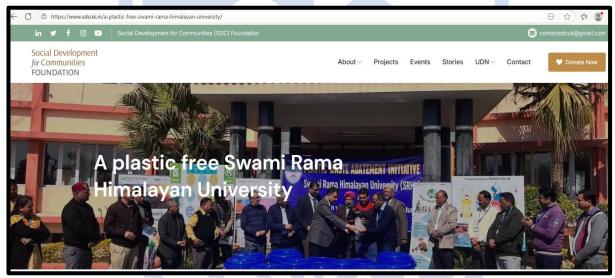
Page 1 of 2

Policy for minimization of plastic use





Establishment of Plastic Bank for collection and proper disposal of plastic waste



Screenshot of Social Development for Communities (SDC) Foundation website



Certificate of recognition for establishment of Plastic Bank





Plastic-Free Campus signage at Swami Rama Himalayan University promoting sustainability



Plastic-Free Campus signage at Swami Rama Himalayan University promoting sustainable practices



Social Development for Communities Foundation Society

July 9, 2024

To Whom It May Concern

This is to confirm that we have received the following quantities of plastic waste from Swami Rama Himalayan University, Jolly Grant, Dehradun.

Academic Year 2023 - 2024 = 1800 Kilogram (Rounded off)

As you are aware, we have a long standing MoU with CSIR-IIP as their Social Technology Partners for the plastic to diesel lab project. We have similar collaborations with Dehradun Cantonment Board and another authorized plastic waste recycler. All plastic collected from SRHU is sent for recycling purposes on a free of cost basis.

Anoop Nautiya Founder

Social Development

Communities Foundation

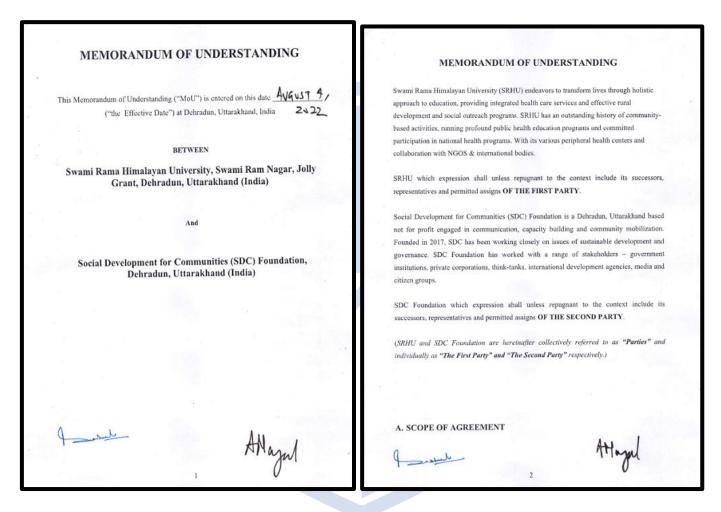
contactsdcuk@gmail.com www.sdcuk.in 69, Vasant Vihar, Dehra Dun - 248 006, Uttarakhand, India





Innovative Plastic-to-Diesel Initiative:

Between 2021 and 2025, Swami Rama Himalayan University recycled 5,600 kilograms of plastic waste in partnership with the CSIR–Indian Institute of Petroleum (IIP), Dehradun, its Social Technology Partner for the Plastic-to-Diesel Lab project. Launched in 2022 alongside the Plastic Waste Bank, the initiative established a system for collecting and segregating plastic waste on campus. The collected waste was processed at CSIR–IIP using pyrolysis technology to produce diesel fuel. This initiative highlights SRHU's commitment to sustainable waste management, resource recovery, and innovative waste-to-energy solutions.



MoU between SRHU and SDC for sustainability and plastic waste management

Evidence: MOU Link



12.2.6 Policy for Minimization of Disposable Items

The University has adopted a comprehensive Policy for Minimisation of Disposable Items, reflecting its commitment to sustainable campus operations and alignment with SDG 12. The policy mandates the progressive elimination of single-use and disposable materials such as plastic cutlery, cups, and packaging across all university facilities — including cafeterias, hostels, hospitals, and administrative offices. Reusable alternatives, such as stainless-steel or biodegradable tableware, have been introduced, and refillable water stations are installed campus-wide to reduce reliance on bottled water. SRHU regularly conducts awareness drives to encourage staff and students to bring reusable containers and avoid disposable packaging. The policy is reviewed annually by the university's committee, and its details and implementation evidence are publicly available on SRHU's sustainability web page, ensuring transparency.



Policy for Plastic and Disposable Items Minimization

Approved	Board of Management on 12th January 2019	
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Next Review	2025-26	

Swami Rama Himalayan University Swami Ram Nagar, Jolly Grant- 248 016, Dehradun, Uttarakhand

Swami Rama Himalayan University

Policy for Plastic and Disposable Items Minimization

Short Title & Commencement

- 1.1 This Policy shall be called the "Policy for Plastic and Disposable Items Minimization" of Swami Rama Himalayan University.
- This Policy shall be deemed to have come into force from the date of approval of the Board of Management of the University.

2. Purpose

This policy outlines Swami Rama Himalayan University's commitment to minimizing the use of plastic and disposable materials across its operations and supply chain. The goal is to reduce environmental impact, promote sustainable alternatives, and align with global efforts to reduce plastic waste

Scope

This policy applies to:

- All departments and employees of Swami Rama Himalayan University
- Contractors, vendors, and suppliers engaged with Swami Rama Himalayan University.
- All activities, products, and services where plastic or disposable materials are used.

Goals

The policy goals are to:

- 4.1 Eliminate unnecessary single-use plastics (e.g., straws, cutlery, cups,
- packaging).
 4.2 Replace disposable items with reusable, biodegradable, or recyclable alternatives.
- Encourage suppliers to adopt similar reduction measures.
- Promote awareness and training among employees and stakeholders on responsible plastic use. Monitor and report progress on plastic reduction annually.

Implementation Measures

Internal Practices

5.1.1 Phase out single-use plastics in offices, cafeterias, and events 5.1.2 Encourage the use of refillable bottles, cups, and containers.

SRHU/Policy for Plastic and Disposable Items Minimization

Page 1 of 2

Policy for Plastic disposable items minimization



12.2.7 Disposable Policy: Extensions to Services

The University ensures that its Policy for Minimisation of Disposable Items is fully extended to all outsourced and contracted services operating within the campus. The policy explicitly requires catering, housekeeping, event management, and facility maintenance vendors to comply with the university's sustainability guidelines on reducing disposable and single-use products. All catering and cafeteria service providers are mandated to replace plastic and Styrofoam disposables with biodegradable or reusable alternatives, while event organisers are required to follow a "no-single-use-item" protocol for all university functions. These provisions are embedded within vendor agreements and monitored periodically to ensure compliance.



Policy for Plastic and Disposable Items Minimization

Approved	Board of Management on 12th January 2019
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Next Review	2025-26

Swami Rama Himalayan University Swami Ram Nagar, Jolly Grant- 248 016, Dehradun, Uttarakhand

Swami Rama Himalayan University

Policy for Plastic and Disposable Items Minimization

Short Title & Commencement

- 1.1 This Policy shall be called the "Policy for Plastic and Disposable Items Minimization" of Swami Rama Himalavan University.
- 1.2 This Policy shall be deemed to have come into force from the date of approval of the Board of Management of the University.

Purpose

This policy outlines Swami Rama Himalayan University's commitment to minimizing the use of plastic and disposable materials across its operations and supply chain. The goal is to reduce environmental impact, promote sustainable alternatives, and align with global efforts to reduce plastic waste

Scope

This policy applies to:

- All departments and employees of Swami Rama Himalayan University.
- Contractors, vendors, and suppliers engaged with Swami Rama Himalayan
- 3.3 All activities, products, and services where plastic or disposable materials are nsed

Goals

The policy goals are to:

- 4.1 Eliminate unnecessary single-use plastics (e.g., straws, cutlery, cups,
- packaging).
 Replace disposable items with reusable, biodegradable, or recyclable
- Encourage suppliers to adopt similar reduction measures
- Promote awareness and training among employees and stakeholders on responsible plastic use.
 4.5 Monitor and report progress on plastic reduction annually.

Implementation Measures

5.1 Internal Practices

- 5.1.1 Phase out single-use plastics in offices, cafeterias, and events.
 5.1.2 Encourage the use of refillable bottles, cups, and containers.

SRHU/Policy for Plastic and Disposable Items Minimization

Page 1 of 2

Policy for Plastic and Disposable items (Extensions to services)



12.2.8 Minimization Policies Extended to Suppliers

The University has extended its waste-minimisation and sustainability policies to all suppliers and vendors. The policy requires suppliers to reduce disposable packaging, use recyclable or biodegradable materials, and prioritise eco-friendly and locally sourced products. Sustainability clauses are included in tender documents and purchase orders, and compliance is regularly reviewed. Policy details and supporting evidence are publicly available on SRHU's sustainability webpage.



Policy for Plastic and Disposable Items Minimization

Approved	Board of Management on 12th January 2019	
Notification	Notified by Registrar vide notification No. SRHU/Reg/OO/2019-04 (i) dated 15 th January 2019	
Reviewed / Revised	Board of Management on 29th March 2022	
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Next Review	2025-26	

Swami Rama Himalayan University Swami Ram Nagar, Jolly Grant- 248 016, Dehradun, Uttarakhand

Swami Rama Himalayan University

Policy for Plastic and Disposable Items Minimization

Short Title & Commencement

- This Policy shall be called the "Policy for Plastic and Disposable Items 1.1 Minimization" of Swami Rama Himalayan University.
- This Policy shall be deemed to have come into force from the date of approval of the Board of Management of the University.

Purpose

This policy outlines Swami Rama Himalayan University's commitment to minimizing the use of plastic and disposable materials across its operations and supply chain. The goal is to reduce environmental impact, promote sustainable alternatives, and align with global efforts to reduce plastic waste

This policy applies to:

- All departments and employees of Swami Rama Himalayan University
- Contractors, vendors, and suppliers engaged with Swami Rama Himalayan
- All activities, products, and services where plastic or disposable materials are used.

Goals

The policy goals are to:

- Eliminate unnecessary single-use plastics (e.g., straws, cutlery, cups, 4.1
- packaging).
 Replace disposable items with reusable, biodegradable, or recyclable alternatives.
- Encourage suppliers to adopt similar reduction measures.
- Promote awareness and training among employees and stakeholders on
- responsible plastic use.
 4.5 Monitor and report progress on plastic reduction annually.

5. Implementation Measures

Internal Practices

- 5.1.1 Phase out single-use plastics in offices, cafeterias, and events.
 5.1.2 Encourage the use of refillable bottles, cups, and containers.

SRHU/Policy for Plastic and Disposable Items Minimization

Page 1 of 2

Minimization policies extended to suppliers



12.3 Proportion of Recycled Waste

Collection/Recycling/Reuse of waste water

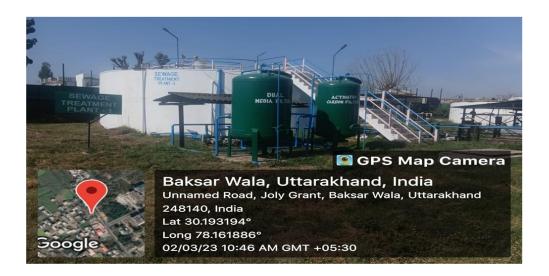
The SRHU campus, including the hospital, utilizes an advanced Sewage Treatment Plant (STP) with a capacity of 1 MLD, employing MBBR technology and an extended aeration-activated sludge process to treat sewage. The treated water meets the quality standards set by the state pollution control board and is repurposed for irrigation in parks and green spaces on campus, ensuring both environmental compliance and sustainability. In addition, SRHU has established a 90 KLD Effluent Treatment Plant (ETP) to address the substantial daily wastewater generated from various campus activities, including laboratory operations and laundry. This plant effectively treats wastewater, mitigating environmental risks and maintaining public health and campus aesthetics. The recycled water is then used for non-potable purposes, such as irrigation, thereby conserving valuable freshwater resources and reinforcing the University's commitment to environmental stewardship and sustainable campus management.





Sewage Treatment Plant (STP) at SRHU







Effluent Treatment Plant (Capacity: 90 KLD)

E-Waste Management

SRHU has implemented the e-waste management policy as prescribed by the state government, ensuring the environmentally responsible disposal of electronic waste. Non-functional and obsolete electronic devices—such as computers, CPUs, monitors, keyboards, mice, and other outdated equipment—are systematically collected and stored in a centralized e-waste storage facility located on campus.

In adherence to regulatory standards, this e-waste is periodically transferred to certified and authorized vendors for safe and responsible disposal, under the framework of a formal agreement. This structured process not only guarantees compliance with environmental regulations but also reinforces the University's commitment to sustainable waste management and eco-friendly campus practices. A certificate of e-waste disposal is provided by the vendor to the University for Official Records, ensuring accountability and compliance with environmental standards.





E-waste collection facility at SRHU

SRHU has official membership with Anmol Paryavaran Sanrakshan Samiti, a recognized organization certified by the Uttarakhand Environment Protection and Pollution Control Board (UEPPCB) for responsible e-waste management and it certifies SRHU as an authorized participant in activities related to e-waste collection, storage, dismantling, recycling, refurbishing, and disposal. This affiliation supports the University's efforts to minimize electronic waste through environmentally sound practices.



SRHU is a certified member for e-waste management by Anmol Paryavaran Sanrakshan Samiti, promoting responsible disposal



12.3.1 Waste tracking

Swami Rama Himalayan University (SRHU) has established a comprehensive waste-tracking system to measure and monitor the amount of waste generated and recycled across the entire campus. The University conducts regular audits to record waste quantities from academic buildings, hostels, hospitals, cafeterias, and administrative areas, categorizing them into biodegradable, non-biodegradable, biomedical, and recyclable waste streams. This tracking process is carried out in collaboration with facility management and sustainability teams to ensure data accuracy and accountability. The collected data is compiled annually and forms the basis for waste reduction and recycling initiatives, including composting of biodegradable waste and recycling of paper, plastic, and metal materials. SRHU is committed to transparency and continuous improvement, and summary data on campus waste management is made available through sustainability reports and institutional documentation.

12.3.2 Proportion of Waste Recycled

The university has implemented a structured waste segregation and recycling system to minimize environmental impact and promote a culture of resource efficiency. All biodegradable, non-biodegradable, and biomedical wastes are carefully separated at the source. Recyclable materials such as paper, plastics, glass, and metals are collected and sent to authorized recycling agencies. Organic waste from hostels, canteens, and gardens is converted into compost through in-house composting units, which is then used to enrich campus greenery.

Through these efforts, SRHU consistently achieves a high proportion of total waste recycled, reducing landfill dependency and contributing to the university's broader sustainability goals. The details are shown below in Table.

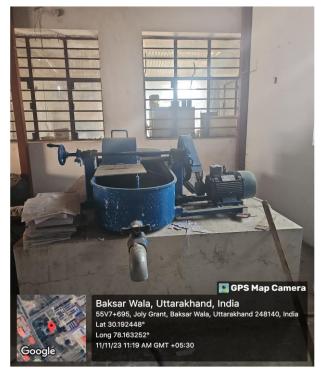
Details	Quantity (metric ton)
Amount of waste generated	153.455
(2023-24)	
Amount of waste recycled	126.917
(2023-24)	
Amount of waste sent to landfill	336.136
(2023-24)	



Recycling of Paper/Waste

SRHU has implemented several sustainable waste management initiatives to minimize environmental impact on campus. The University operates an 8 kg per day waste paper recycling plant, which processes paper waste collected from various offices and schools. The resulting recycled handmade paper is repurposed into envelopes used within university offices, promoting a circular economy. In addition, biodegradable waste from across the campus is processed in a compost pit, producing organic fertilizer that supports the university's nursery and gardens.







Waste paper recycling unit





Paper produced in the Waste Paper Recycling Unit is used to make envelopes that are used within the University





12 Garhual Fost) www.garhwalpost.in

Dehradun, 22 Oct, 2022

Dehradun

Waste Paper Recycling Unit installed at Swami Rama Himalayan University

By OUR STAFF REPORTER DEHRADUN, 20 Oct: On the occasion of Diwali, Swami Rama Himalayan University Jolly Grant took another significant step towards environmental protection. Vice Chancellor Dr Vijay Dhasmana formally inaugurated the Waste Paper Recycling Unit at the University Campus. He said that SRHU has established itself as a model university in the field of environmental protection apart from education, health and social development. Various schemes have been implemented for the disposal of plastic waste including water and energy conservation in the lush green university campus sprawling over 200 acres. He mentioned that there can be nothing better than fulfilling the demand for paper and other stationery without cutting trees The paperless work system has been adopted in the university. but there are many activities in which use of paper becomes mandatory. Therefore, a plant to recycle used paper (waste)



has been set up in the university. Envelopes, cards and file covers can also be made from waste in this unit. Apart from environmental protection, the

expenditure on paper, file covers and envelopes used in the institute will also be curtailed. Girish Uniyal, Head of Electrical and Mechanical Department of SRHU said that about 8 kg of used paper (waste) can be recycled daily in the unit. Himalayan Hospital Chief Medical Superintendent Dr SL Jethani, Dr Ashok Deorari, Dr Mushtaq Ahmed, Dr CS Nautiyal, Roshan Naugain, Rupesh Mehrotra, etc., were present on the occasion.

12.4 Publication of Sustainability Report

SRHU is committed to transparency and accountability in its sustainability journey. In line with indicator 12.4 (12.4.1), the University has published a dedicated sustainability report which is publicly accessible on the university's website and complements its annual report. The report includes clear statements of sustainability strategy, audited data on resource consumption and waste management, and measurable targets for future years thereby fulfilling the criteria of existence, verifiable evidence and public availability.

Responsible Consumption and Production at SRHU

In response to climate change and the growing global demand for sustainable energy sources, the University has taken significant strides in adopting eco-friendly practices. A notable initiative is the installation of a 1500 KW rooftop solar power plant on the SRHU campus. This forward-thinking project not only underscores the University's commitment to environmental sustainability but also serves as an educational resource for students and the broader community. The solar power plant greatly reduces the University's carbon footprint by minimizing reliance on fossil fuels, thereby decreasing greenhouse gas emissions. Additionally, it conserves water resources, as solar energy production requires far less water compared to conventional power generation

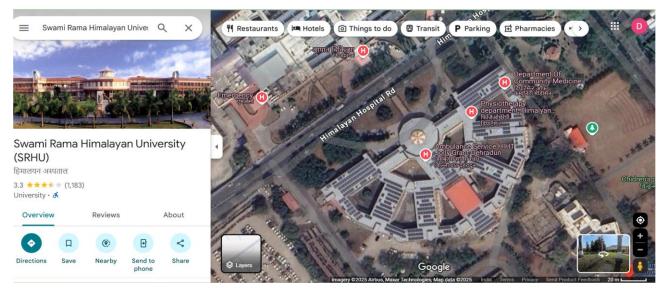


methods. The plant also enables substantial cost savings by generating on-site electricity, allowing the University to reinvest in educational initiatives and further sustainable projects. Looking ahead, SRHU has signed an agreement with M/S Bakshi Engineering Works, Dehradun, to expand its renewable energy efforts with an additional 1000 KW rooftop solar power plant.

To further enhance energy efficiency, the University has implemented measures to reduce electricity consumption across campus facilities, including lighting, air conditioning, lifts, water mining, and other equipment. A key initiative is the widespread adoption of LED lighting, which consumes up to 80% less electricity than traditional incandescent and fluorescent bulbs. This switch has significantly reduced energy consumption, lowered electricity bills, and diminished the campus's carbon footprint, aligning with SRHU's commitment to combating climate change. SRHU has also introduced smart lighting systems powered by LEDs, which use sensors and automated controls to adjust lighting based on occupancy and ambient light conditions. This technology ensures minimal energy waste by activating lights only when and where needed, further advancing the University's sustainability objectives.

In addition to lighting innovations, SRHU has embraced Brushless Direct Current (BLDC) fans across its campus. These fans are highly energy-efficient, consuming significantly less electricity than traditional AC fans while providing equal or superior airflow. The use of BLDC fans has resulted in considerable cost savings and contributes to a more sustainable campus operation.

Moreover, their durability and low maintenance requirements ensure a longer lifespan and reduced operational costs, reinforcing the University's focus on efficiency and sustainability. Through these initiatives, SRHU demonstrates its unwavering commitment to fostering a greener, more sustainable campus, setting a benchmark for environmental stewardship in higher education.



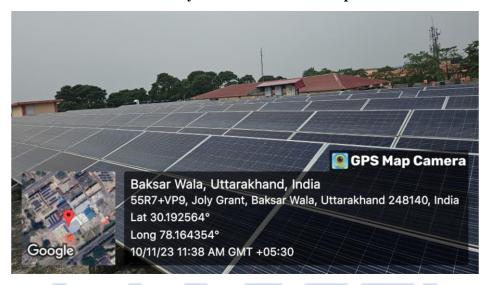
Aerial view of Solar panels at HIMS (Google Maps)







Rooftop solar panels at Swami Rama Himalayan University harnessing renewable energy to promote sustainability and reduce carbon footprint.

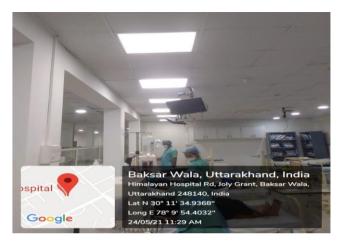


Solar system installed in the University campus



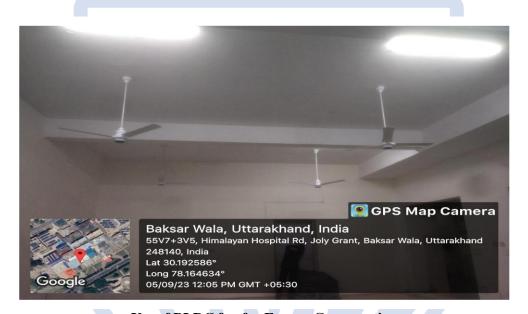
Motion sensor based sensor LED lights for energy conservation







Use LED lights for energy conservation



Use of BLDC fan for Energy Conservation

Uses of BEE Star-Rated Air Conditioners

In its efforts to establish a sustainable and environmentally responsible campus, the University has made a notable advancement by integrating BEE (Bureau of Energy Efficiency) star-rated air conditioners. This initiative reflects the University's commitment to environmental stewardship while offering several advantages, including enhanced energy efficiency, cost savings, and improved indoor comfort. The lower energy consumption of BEE star-rated air conditioners leads to reduced electricity costs for SRHU, allowing these financial savings to be redirected toward further campus sustainability projects and academic programs.







Use of BEE star rated Air conditioners

Battery Operated Vehicles in the Campus





Use of Battery Operated Vehicles in the Campus



The integration of electric vehicles (EVs) into the SRHU campus offers a key environmental benefit by significantly reducing greenhouse gas emissions. By replacing fossil fuel-powered vehicles with EVs, SRHU has made substantial strides in lowering its carbon footprint, contributing to a cleaner and healthier environment. Electric vehicles now provide an efficient and sustainable mode of transportation for faculty, staff, and campus shuttles, as well as for maintenance purposes. To further promote the adoption of EVs, SRHU has strategically installed charging infrastructure at key locations across the campus, making it easier for users to charge their vehicles and supporting the transition to greener transportation options.



Reduction in Use of water and Conservation

Water is one of the most essential natural resources for sustaining life on Earth, yet a significant amount of it is wasted due to improper usage patterns and inefficient storage and distribution systems. To address this issue and promote water conservation, several measures have been implemented on the University campus. Sprinkler systems are used for watering trees, plants, crops, and lawns to ensure efficient water use. Water-efficient taps, faucets, and dispensers have been installed to replace older, inefficient models and reduce unnecessary water flow. Open water storage and channel systems are avoided to minimize evaporation and contamination losses. Additionally, new buildings on campus are equipped with waterless urinals to further reduce water consumption. Awareness programs are also conducted to encourage students and staff to adopt water-saving practices in their daily activities. These combined efforts aim to promote sustainable water management, reduce wastage, and preserve this vital resource for future generations.



Water scarcity is an escalating global challenge, and with climate change increasingly disrupting weather patterns, it is vital to explore innovative solutions to address this issue. Rainwater harvesting is one such sustainable practice that offers significant potential in mitigating water shortages and reducing dependence on conventional water sources. This age-old technique involves collecting and storing rainwater for various uses, such as drinking, irrigation, and household needs. The process typically begins with capturing rainwater from rooftops, followed by filtration and storage. On the SRHU campus, rainwater is collected from the roof of the medical college building and stored in a 150 KL capacity underground tank. This water is then utilized for non-potable purposes, such as toilets and cleaning. In addition, excess rainwater is directed into the ground through infiltration wells strategically placed throughout the campus. This method not only reduces pressure on freshwater resources but also helps replenish underground aquifers, fostering sustainable groundwater management and contributing to the overall environmental sustainability of the campus.



Rainwater harvesting pits with filter bed recharge in campus















Tanks for Water Storage

SRHU emphasizes the use of tanks and bunds as an integral part of its sustainable water management practices. These structures are vital for conserving water, preventing soil erosion, and supporting groundwater recharge. Key initiatives include:

- 1. Water Storage Tanks: Constructing large tanks to store rainwater and treated water for irrigation and other non-potable uses.
- 2. Bunding Systems: Establishing bunds in key areas to capture surface runoff and direct it to recharge pits or water bodies.
- 3. Erosion Control: Using bunds to prevent soil erosion and enhance soil moisture retention in landscaped and agricultural areas.
- 4. Groundwater Recharge: Designing tanks and bunds to channel excess water into aquifers, thereby maintaining groundwater levels.
- 5. Community Awareness: Educating the campus community on the importance and functioning of tanks and bunds in sustainable water management.
- 6. Integration with Landscaping: Incorporating tanks and bunds into the campus landscaping plan to maximize water conservation benefits.





Biogas Plant

Swami Rama Himalayan University (SRHU) has strengthened its commitment to sustainable energy practices by setting up an in-house biogas plant on campus. Biogas, a renewable biofuel, is produced through the process of anaerobic digestion. Located behind the university guest house, the biogas plant has a daily capacity of 4 cubic meters (m³) and operates using cow dung from the campus dairy and vegetable waste from the guest house kitchen as feedstock. The biogas generated is efficiently utilized for cooking in the guest house kitchen, offering an eco-friendly alternative to conventional fuels. This initiative has led to an annual saving of 685.44 kg of LPG, which is equivalent to approximately 36 commercial LPG cylinders. Beyond energy savings, the project plays a crucial role in organic waste recycling, promoting a circular approach to resource management and contributing meaningfully to the nation's energy conservation goals.



Biogas Plant located behind the guest house in the University





Landscaping for the Green Campus

Landscaping plays a crucial role in promoting a green and sustainable campus at Swami Rama Himalayan University. By incorporating native plants, eco-friendly designs, and sustainable practices, the University enhances its aesthetic appeal while supporting biodiversity and environmental conservation. Thoughtfully designed green spaces, including gardens, tree-lined pathways, and water features, help reduce the carbon footprint, improve air quality, and create a tranquil environment that supports learning and well-being. Furthermore, initiatives such as organic waste composting, rainwater harvesting systems, and the use of low-maintenance plants further reinforce the University's commitment to sustainability and ecological responsibility. These efforts reflect SRHU's dedication to achieving a harmonious balance between growth and environmental stewardship, ensuring a sustainable and thriving campus for future generations.







Landscaping for Green campus





Landscaping for Green campus



Awareness programme for Swatchh Bharat

Plantation in the Campus

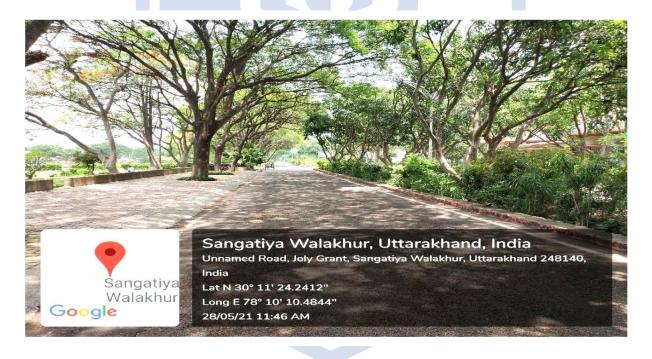
SRHU is dedicated to fostering a sustainable and environmentally conscious campus. One of the most impactful steps taken towards achieving this vision is the extensive tree plantation initiative within the university premises. Trees act as natural air filters, absorbing pollutants and releasing oxygen. This significantly contributes to improved air quality on campus, creating a healthier atmosphere for all. Trees provide shade and reduce the heat island effect, helping to maintain a comfortable and cooler campus environment, especially during hot seasons. SRHU's tree plantation initiative includes a wide variety of indigenous and exotic tree species carefully chosen to thrive in the local climate and conditions.







Plantation drives for green campus



Green campus @SRHU

Certifications and Quality Standards

SRHU consistently adheres to audit procedures for energy, environment, and green campus initiatives. Through these efforts, the University upholds quality standards and ensures compliance with ISO regulations set by government-approved agencies. Notably, the University maintains an active ISO 14001:2015 and ISO 50001: 2018 certification in its records.



Certificate of Registration

This is to Certify that Environmental Management System of

SWAMI RAMA HIMALAYAN UNIVERSITY (SRHU)

SWAMI RAM NAGAR JOLLY GRANT, DOIWALA, DEHRADUN, UTTRAKHAND - 248140, INDIA.

has been assessed and found to conform to the requirements of

ISO 14001:2015

for the following scope:

PROVIDING EDUCATION UNDERGRADUATE (UG), POSTGRADUATE (PG) AND DOCTORAL DEGREE PROGRAMS, RESEARCH, PHD AND HEALTH CARE SERVICE.

Certificate No : 23EELG49









Magnitude Management Services Pvt. Ltd.

Third Floor, A-60, Sector-2, Noida, Gautam Budh Nagar, U.P.-201301, India e-mail: info@mmicertification.com website: www.mmscertification.com
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Certificate of Registration

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SWAMI RAMA HIMALAYAN UNIVERSITY

SWAMI RAM NAGAR, JOLLY GRANT, DOIWALA, DEHRADUN, 248140, UTTARAKHAND, INDIA

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ISO 50001:2018

for the following scope :

PROVIDING EDUCATION UNDERGRADUATE (UG), POSTGRADUATE (PG) AND DOCTORAL DEGREE PROGRAMS, RESEARCH, PHD AND HEALTH CARE TRAINING COURSES

Certificate No : 23EQNA76

Initial Registration Date: 11/09/2023 Issuance Date: 11/09/2023

Date of Expiry : 10/09/2026

1st Surve. Due : 11/08/2024 2nd Surve. Due : 11/08/2025









DIRECTOR

Magnitude Management Services Pvt. Ltd.

Third Flore, A-60, Sector-2, Norder, Genrum Bodh Nagar, U.P.-2003dt, India, e-marti-infest uncorreligation cons, website: none unmareliferation consisting or to Suscopid Survivillates Andre via an Exercision and it is not allowed to be undestred, this certificate that for supervised marketinessed Gerificate Verification: Nove Revision is the wideling of certificate or large flowers unmare complete content, any or name unmareligation con- at Artise Cleans Confidence in the property of Magnitude Management Service Pet. Left. and Solid to enterend immediately when elemented.





CARBON FOOTPRINT CERTIFICATE 2023-24

PRESENTED TO

Swami Rama Himalayan University

Swami Ram Nagar, Doiwala, Dehradun, Uttarakhand, India

Scope of GHG emissions	tCO2e	%
Direct emissions to air	858	9.4
Indirect emissions from purchased energy	10	0.11
Other indirect emissions	8260	90.4
Total tCO ₂ e	9,1	28

Dr. Gurpree Esting, Vinar Colony, Behadrabad (Authorized algeriatory Uttarakhand 249402 Lead Auditor - Grand & Environment Audits Ecoscience Consultancy, Uttarakhand

Date: 24 07 2024













Client: Swami Rama Himalayan University Location: Swami Ram Nagar, Doiwala, Dehradun, 248140, Uttarakhand, India

Green Audit Report (2023-24)



AUDIT CERTIFICATE

PRESENTED TO

Swami Rama Himalayan University

Swami Ram Nagar, Doiwala, Dehradun, Uttarakhand, India

Has been assessed by Ecoscience Consultancy for the comprehensive study of environmental impacts on institutional working framework to full the requirement of

Green Audit

(2023-24)

The green initiatives carried out by the university have been verified and found satisfactory in the report submitted.

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

ECOSCIENCE CONSULTANCY

Gargo Lakshmi Vihar Colony, Bahadrabad

Dr. Gurpreet Singh Haridwar, Uttarakhand-249402 !

(Authorized Signatory)

Lead Auditor - Green & Environment Audits

Date: 24 01/2024











Ecoscience Consultancy (An ISO 9001, 14001, 45001, 17020 and 50001 certified company)



Swami Rama Himalayan University

(Estd. Under section 2(Bof UGC Act, 1956 vide Uttarakhand State Act) Swami Ram Nagar, Jolly Grant, Dehradun 248016 Uttarakhand, India



स्वामी राम हिमालयन विश्वविद्यालय

स्वामी राम नगर, जौलीग्रान्ट, देहरादून 248016 उत्तराखण्ड, भारत

To whom it may concern

This is to certify that the Material Management Department has successfully participated in the collection and recycling of electronic e-waste and general waste in accordance with environmental standards for contributing towards sustainable waste management and its disposal under environmental conservation efforts.

These wastes are regularly collected from all constituent academic units and Hospitals for storing it in waste collection zone located inside the campus.

The details of e-waste and general wastes collected in year 2023-24 is given below:

S.No.	Weight in Kg	Type of Waste
1	26537.5	Medical Equipment, Electronic & IT and telecome equipments etc.
2	79612.5	Paper Scrap, Iron, Tin & Plastic etc.
Total	106150	

Roshan Naugain

Manager

(Material Management Department)

Date: 22/07/24



Curriculum Enrichment

The University's academic programs integrate various courses explicitly aligned with SDG 12 (Responsible Consumption and Production), emphasizing sustainability, resource efficiency, and eco-friendly practices. Through specialized courses such as Food & Dairy Microbiology, Bioprocess Technology, Hospital Planning and Operations, Human Resource Management, and Inventory & Equipment Management in Hospitals, students gain practical knowledge on minimizing waste, optimizing resource utilization, and implementing sustainable practices in diverse sectors including healthcare, agriculture, biotechnology, and industrial operations. This approach ensures that graduates are equipped not only with technical expertise but also with a strong understanding of sustainable development principles, fostering responsible decision-making and innovation in professional and community settings.

Program Name	Course Code	UG/PG	Course Title	Course Description
B.Sc Nursing	N- COMH (I) 310	UG	Community Health Nursing I including Environmental Science & Epidemiology - Theory	It focuses on health promotion, disease prevention, and community care. It includes Environmental Science and Epidemiology to understand health determinants, environmental impacts, and disease patterns for effective public health practice.
Post Basic B.Sc. Nursing	PBN207	UG	Environmental Science	This course explores the relationships between humans and the natural world. It covers ecological principles, environmental issues, sustainability, conservation, and the impact of human activities on ecosystems, address global environmental challenges and promote sustainable development for a balanced future.
BRT	EVS301	UG	Environmental Science	This course explores the relationships between humans and the natural world. It covers ecological principles, environmental issues, sustainability, conservation, and the impact of human activities on ecosystems, address global environmental challenges and promote sustainable development for a balanced future.



Program Name	Course Code	UG/PG	Course Title	Course Description
BRIT	EVS301	UG	Environmental Science	This course explores the relationships between humans and the natural world. It covers ecological principles, environmental issues, sustainability, conservation, and the impact of human activities on ecosystems, address global environmental challenges and promote sustainable development for a balanced future.
BMLT	EVS301	UG	Environmental Science	This course covers the relationships between humans and the natural world. It covers ecological principles, environmental issues, sustainability, conservation, and the impact of human activities on ecosystems, address global environmental challenges and promote sustainable development for a balanced future.
B.Optom.	EVS301	UG	Environmental Science	This course explores the relationships between humans and the natural world. It covers ecological principles, environmental issues, sustainability, conservation, and the impact of human activities on ecosystems, address global environmental challenges and promote sustainable development for a balanced future.
BASLP	EVS301	UG	Environmental Science	This course explores the relationships between humans and the natural world. It covers ecological principles, environmental issues, sustainability, conservation, and the impact of human activities on ecosystems, address global environmental challenges and promote sustainable development for a balanced future.
ВОТ	EVS301	UG	Environmental Science	This course explores the relationships between humans and the natural world. It covers ecological principles, environmental issues, sustainability, conservation, and the impact of human activities on ecosystems, address global environmental challenges and promote sustainable development for a balanced future.



Program Name	Course Code	UG/PG	Course Title	Course Description
BBA	BBA 107	UG	Environment Studies	This course explores the relationships between humans and the natural world. It covers ecological principles, environmental issues, sustainability, conservation, and the impact of human activities on ecosystems, address global environmental challenges and promote sustainable development for a balanced future.
BBA	BBA 104	UG	Management Concepts	It focuses on sustainable resource use, responsible production, and consumption. It integrates management principles with environmental stewardship, ethics, and innovation to promote sustainability and achieve long-term organizational and societal goals.
B.Sc. (H) Biotechnology	BBTOE 112	UG	Principle of Management	Principles of Management focuses on planning, organizing, leading, and controlling organizational activities for effective decision-making and productivity. It aligns with SDG-12 by promoting sustainable management practices and responsible use of resources in business operations.
B.Sc. (H) Biotechnology	AECC 111	UG	Environmental Science-I	This course explores the relationships between humans and the natural world. It covers ecological principles, environmental issues, sustainability, conservation, and the impact of human activities on ecosystems, address global environmental challenges and promote sustainable development for a balanced future.
B.Sc. (H) Biotechnology	BBTSE 121	UG	Biofertilizers	Biofertilizers study beneficial microorganisms that enhance soil fertility and plant growth through natural nutrient cycles. It aligns with SDG-12 by promoting sustainable agriculture, reducing chemical fertilizer use, and encouraging responsible production practices.



Program Name	Course Code	UG/PG	Course Title	Course Description
B.Sc. (H) Biotechnology	BBTC 233	UG	Chemistry-I	It introduces fundamental concepts of matter, chemical reactions, and their applications in daily life. It promotes sustainable chemical practices, reducing environmental pollution, and supporting climate action through green chemistry innovations.
B.Sc. (H) Biotechnology	BBTOE 231	UG	Bioethics and Biosafety	This course focus on ethical principles, safety measures, and responsible conduct in biological research and biotechnology. It promotes sustainable scientific practices, protecting human and environmental health, and ensuring ethical innovation for global wellbeing.
B.Sc. (H) Biotechnology	BBTSE 231	UG	Microbial Quality Control in Food and Pharmaceutical Industries	It focuses on detecting, preventing, and managing microbial contamination to ensure product safety and quality. It aligns with SDGs by promoting sustainable production, reducing waste, and minimizing environmental impact through ecofriendly quality assurance practices.
B.Sc. (H) Biotechnology	AECC 231	UG	Environmental Sciences-II	This course explores the relationships between humans and the natural world. It covers ecological principles, environmental issues, sustainability, conservation, and the impact of human activities on ecosystems, address global environmental challenges and promote sustainable development for a balanced future.
B.Sc. (H) Biotechnology	BBTOE 241	UG	Beverage biotechnology	It explores the microbial and biochemical processes involved in producing beverages like beer, wine, and juices. It aligns with SDGs by promoting sustainable production methods, reducing resource waste, and minimizing environmental impact in the beverage industry.



Program Name	Course Code	UG/PG	Course Title	Course Description
B.Sc. (H) Biotechnology	BBTOE 242	UG	Biotechnology and Human Welfare	This course explores the application of biotechnological tools to improve health, agriculture, and industry. It aligns with SDGs by promoting sustainable biotechnological practices and developing solutions to address environmental and climate challenges.
B.Sc. (H) Biotechnology	BBTSE 241	UG	Nano Biotechnology	The application of nanotechnology in biological systems for medicine, agriculture, and industry. It advances targeted drug delivery, diagnostics, and sustainable technologies, contributing to innovative solutions for health and environmental
				challenges.
B.Sc. (H) Biotechnology	BBTC 501	UG	Animal Biotechnology & Developmental Biology	It explores genetic, cellular, and molecular techniques to study and improve animal health, reproduction, and productivity. It also examines developmental processes, contributing to sustainable agriculture, biomedical research, and conservation efforts.
B.Sc. (H) Biotechnology	BMBC 502	UG	Food Fermentation Techniques	It covers the use of microorganisms to transform raw ingredients into safe, nutritious, and flavourful food products. They promote sustainable food production, reduce waste, and support environmentally friendly practices.
B.Sc. (H) Biotechnology	BBTC 502	UG	Industrial Biotechnology	It applies biological systems, organisms, and processes to produce chemicals, fuels, and materials sustainably. It promotes eco-friendly manufacturing, resource efficiency, and reduced environmental impact, supporting SDG goals.
B.Sc. (H) Biotechnology	BBTC 503	UG	Environmental Biotechnology	This course focuses biological processes and organisms to address environmental challenges, such as pollution control, waste management, and ecosystem restoration. It supports sustainable resource use and climateresilient environmental solutions.
B.Sc. (H) Biotechnology	BBTE 501 B	UG	Bioprocess Engineering	This course explores Bioprocess Engineering, focusing on the design, optimization, and scale-up of biological production systems for sustainable industrial applications.



Program Name	Course Code	UG/PG	Course Title	Course Description
B.Sc. (H) Biotechnology	BBTE 501 C	UG	Food Biotechnology	This course covers Food Biotechnology, exploring the use of microorganisms and enzymes to enhance food quality, safety, and sustainability.
B.Sc. (H) Biotechnology	BTBC 601	UG	Biostatistics, Bioethics, Biosafety, IPR & Computers	This course focus on ethical principles, safety measures, and responsible conduct in biological research and biotechnology.
B.Sc. (H) Biotechnology	BBTE 601 A	UG	Molecular Farming	This course explores molecular farming using genetically engineered plants to sustainably produce biomolecules like pharmaceuticals and enzymes advancing eco-efficient biomanufacturing in line with SDGs.
B.Sc. (H) Biotechnology	BBTE 601 B	UG	Downstream Processing	This course covers Downstream Processing, focusing on the separation, purification, and recovery of bioproducts from complex mixtures. It emphasizes sustainable, efficient bioprocess design.
B.Sc. (H) Biotechnology	BBTE 601 C	UG	Industrial Waste Management	This course focuses on Industrial Waste Management, emphasizing waste minimization, treatment, and resource recovery strategies for sustainable industry practices.
B.Sc. (H) Microbiology	BMBC 111	UG	General Microbiology	This course introduces General Microbiology, covering microbial structure, function, diversity, and their roles in health, industry, and the environment, promoting sustainable applications.
B.Sc. (H) Microbiology	BBTOE 112	UG	Principle of Management	Principles of Management focuses on planning, organizing, leading, and controlling organizational activities for effective decision-making and productivity. It aligns with SDG-12 by promoting sustainable management practices and responsible use of resources in business operations.
B.Sc. (H) Microbiology	BMBSE 111	UG	Mushroom Farming	This course focuses on Mushroom Farming, covering cultivation methods, substrate formulation, and value-added processing to promote sustainable food production and waste utilization.



Program Name	Course Code	UG/PG	Course Title	Course Description
B.Sc. (H) Microbiology	AECC 111	UG	Environmental Science-I	This course explores the relationships between humans and the natural world. It covers ecological principles, environmental issues, sustainability, conservation, and the impact of human activities on ecosystems, address global environmental challenges.
B.Sc. (H) Microbiology	BMBC 122	UG	Industrial Microbiology	This course explores Mushroom Farming, focusing on cultivation techniques, substrate preparation, and post-harvest management for sustainable food and income generation.
B.Sc. (H) Microbiology	BBTSE 121	UG	Biofertilizers	Biofertilizers study beneficial microorganisms that enhance soil fertility and plant growth through natural nutrient cycles. It promotes sustainable agriculture, reducing chemical fertilizer use, and encouraging responsible production practices.
B.Sc. (H) Microbiology	BMBC 231	UG	Food & Diary Microbiology	This course covers Food & Dairy Microbiology, emphasizing the role of microorganisms in food production, preservation, and safety, fostering sustainable and hygienic practices.
B.Sc. (H) Microbiology	BBTC 233	UG	Chemistry-I	It introduces fundamental concepts of matter, chemical reactions, and their applications in daily life, promoting sustainable chemical practices, reducing environmental pollution, and supporting climate action through green chemistry innovations.
B.Sc. (H) Microbiology	BBTOE 231	UG	Bioethics and Biosafety	This course focus on ethical principles, safety measures, and responsible conduct in biological research and biotechnology. It includes scientific practices, protecting human and environmental health, and ensuring ethical innovation for global well-being.



Program Name	Course Code	UG/PG	Course Title	Course Description
B.Sc. (H) Microbiology	BBTSE 231	UG	Microbial Quality Control in Food and Pharmaceutical Industries	It focuses on detecting, preventing, and managing microbial contamination to ensure product safety and quality. It aligns with SDGs by promoting sustainable production, reducing waste, and minimizing environmental impact through ecofriendly quality assurance practices.
B.Sc. (H) Microbiology	AECC 231	UG	Environmental Sciences-II	This course explores the relationships between humans and the natural world. It covers ecological principles, environmental issues, sustainability, conservation, and the impact of human activities on ecosystems, address global environmental challenges and promote sustainable development.
B.Sc. (H) Microbiology	BBTOE 242	UG	Biotechnology and Human Welfare	This course explores the application of biotechnological tools to improve health, agriculture, and industry. It aligns with SDGs by promoting sustainable biotechnological practices and developing solutions to address environmental and climate challenges.
B.Sc. (H) Microbiology	BBTSE 241	UG	Nano Biotechnology	The application of nanotechnology in biological systems for medicine, agriculture, and industry. It advances targeted drug delivery, diagnostics, and sustainable technologies, contributing to innovative solutions for health and environmental challenges.
B.Sc. (H) Microbiology	BMBC 502	UG	Food Fermentation Techniques	It covers the use microorganisms to transform raw ingredients into safe, nutritious, and flavorful food products. They promote sustainable food production, reduce waste, and support environmentally friendly practices.
B.Sc. (H) Microbiology	BMBC 503	UG	Industrial Microbiology	This course introduces Industrial Microbiology, focusing on the use of microorganisms in large-scale production of enzymes, biofuels, and pharmaceuticals, promoting sustainable bioprocessing.



Program Name	Course Code	UG/PG	Course Title	Course Description
B.Sc. (H) Microbiology	BMBC 504	UG	Environmental Microbiology	This course covers Environmental Microbiology, examining the roles of microorganisms in ecosystems, bioremediation, and pollution control, fostering sustainable environmental management.
B.Sc. (H) Microbiology	BMBE 501 B	UG	Food & Dairy Microbiology	This course covers Food & Dairy Microbiology, focusing on the role of microorganisms in food production, preservation, and safety, promoting sustainable and hygienic practices.
B.Sc. (H) Microbiology	BMBE 501 C	UG	Microbiological Analysis of Air and Water	This course focuses on Microbiological Analysis of Air and Water, teaching techniques to detect, quantify, and control microbial contaminants, supporting safe, sustainable environmental management.
B.Sc. (H) Microbiology	BBTC 601	UG	Biostatistics, Bioethics, Biosafety, IPR and Computers	This course focus on ethical principles, safety measures, and responsible conduct in biological research and biotechnology.
B.Sc. (H) Microbiology	BMBE 601 A	UG	Bio-fertilizers and Bio-pesticides	This course covers Bio-fertilizers and Bio-pesticides, exploring the use of beneficial microorganisms to enhance soil fertility and pest management sustainably.
B.Sc. (H) Microbiology	BMBE 601 C	UG	Mushroom Cultivation Technology	This course focuses on Mushroom Farming, covering cultivation methods, substrate formulation, and value-added processing to promote sustainable food production and waste utilization.
Bachelor of Pharmacy	BP104T	UG	Pharmaceutical Inorganic Chemistry	This course covers Pharmaceutical Inorganic Chemistry, focusing on the chemistry, analysis, and applications of inorganic compounds in drug formulation and therapy, promoting sustainable and safe pharmaceutical practices.
Bachelor of Pharmacy	BP202T	UG	Pharmaceutical Organic Chemistry I	This course covers the structure, reactions, and synthesis of organic compounds used in drug development, promoting sustainable and safe pharmaceutical practices.



Program Name	Course Code	UG/PG	Course Title	Course Description
Bachelor of Pharmacy	BP206T	UG	Environmental Sciences	This course explores the relationships between humans and the natural world. It covers ecological principles, environmental issues, sustainability, conservation, and the impact of human activities on ecosystems, address global environmental challenges and promote sustainable development for a balanced future.
Bachelor of Pharmacy	BP301T	UG	Pharmaceutical Organic Chemistry II	This course covers the structure, reactions, and synthesis of organic compounds used in drug development, promoting sustainable and safe pharmaceutical practices.
B.Tech CSE	HST112	UG	Environmental Studies	This course explores the relationships between humans and the natural world. It covers ecological principles, environmental issues, sustainability, conservation, and the impact of human activities on ecosystems, address global environmental challenges and promote sustainable development for a balanced future.
BCA	HS112T	UG	Environmental Studies	This course explores the relationships between humans and the natural world. It covers ecological principles, environmental issues, sustainability, conservation, and the impact of human activities on ecosystems, address global environmental challenges.
B.Sc. Data Science	MD121T	UG	Environmental Studies	This course explores the relationships between humans and the natural world. It covers ecological principles, environmental issues, sustainability, conservation, and the impact of human activities on ecosystems, address global environmental challenges and promote sustainable development for a balanced future.
B.Sc. Yoga Science and Holistic Health	BYS603	UG	Fundamentals of Environmental Science	This course explores the relationships between humans and the natural world. It covers ecological principles, environmental issues, sustainability, conservation, and the impact of human activities on ecosystems, address global environmental challenges and promote sustainable development.



Program Name	Course Code	UG/PG	Course Title	Course Description
MSc Epidemiology	CMEC001	PG	Environmental and Occupational Epidemiology	This course covers Environmental and Occupational Epidemiology, focusing on the study of disease patterns related to environmental and workplace exposures, promoting health risk reduction.
M.Sc. Nursing	MSN102 B	PG	Community Health Nursing-I	This course covers Community Health Nursing-I, focusing on promoting health, disease prevention, and sustainable healthcare practices at the community level.
M.Sc. Nursing	MSN-201 B	PG	Community Health Nursing – II	This course covers Community Health Nursing-II, emphasizing advanced community-based care, health promotion, and sustainable nursing interventions.
Master of Hospital Administration	MHA122	PG	Hospital Planning and Operations	This course covers Hospital Planning and Operations, focusing on the design, management, and sustainable operation of healthcare facilities to optimize resource use, reduce environmental impact, and enhance patient care.
Master of Hospital Administration	MHA129	PG	Inventory and equipment management in Hospitals	This course covers Inventory and Equipment Management in Hospitals, focusing on efficient procurement, storage, and utilization of medical resources to minimize waste and promote sustainable healthcare practices.
Master of Hospital Administration	MHA217	PG	Legal Implications in Hospital Administration	This course covers Legal Implications in Hospital Administration, focusing on healthcare laws, regulations, and compliance to ensure ethical, efficient, and sustainable hospital management.
M.Sc. Microbiology	MMBT 301	PG	Pharmaceutical Microbiology	It covers the role of microorganisms in drug development, quality control, and production of pharmaceuticals, promoting safe and sustainable practices.
M.Sc. Microbiology	MMBT 302	PG	Industrial Microbiology	This course explores Mushroom Farming, focusing on cultivation techniques, substrate preparation, and post-harvest management for sustainable food and income generation.



Program Name	Course Code	UG/PG	Course Title	Course Description
M.Sc. Microbiology	MMBT 303	PG	Food & Dairy Microbiology	This course covers Food & Dairy Microbiology, emphasizing the role of microorganisms in food production, preservation, and safety, fostering sustainable and hygienic practices aligned with SDGs.
M.Sc. Microbiology	MMBE 301	PG	Microbial Technology	This course covers the application of microorganisms in industry, agriculture, and environmental management for sustainable production and pollution mitigation.
M.Sc. Microbiology	MMBE 302	PG	Industrial Waste Management	This course focuses on Industrial Waste Management, emphasizing waste minimization, treatment, and resource recovery strategies for sustainable industry practices.
M.Sc. Microbiology	MMBE 304	PG	Soil and Agriculture Microbiology	This course covers the role of microorganisms in soil fertility, crop productivity, and sustainable farming practices.
M.Sc. Microbiology	MMBE 309	PG	Nano Biotechnology	The application of nanotechnology in biological systems for medicine, agriculture, and industry. It advances targeted drug delivery, diagnostics, and sustainable technologies, contributing to innovative solutions for health and environment.
M.Sc. Microbiology	MMBE 310	PG	Bioprocess Technology	This course covers the use of biological systems for sustainable production of biochemicals, pharmaceuticals, and biofuels, promoting eco-efficient practices.
M.Sc. Biotechnology	MBTT 303	PG	Food and Industrial Biotechnology	This course covers Food and Industrial Biotechnology, focusing on the application of biological processes and microorganisms to produce food, enzymes, and bio-based products.
M.Sc. Biotechnology	MBTE 302	PG	Advanced Environmental Biotechnology	This course covers Advanced Environmental Biotechnology, focusing on cutting-edge microbial and bioprocess strategies for pollution control, waste treatment, and ecosystem restoration, promoting sustainable solutions.



Program Name	Course Code	UG/PG	Course Title	Course Description
M.Sc. Biotechnology	MBTE 305	PG	Agrobiotechnology	It covers the use of biotechnological tools to improve crop yield, resistance, and supporting eco-friendly agricultural practices
M.Sc. Biotechnology	MBTE 306	PG	Metabolic Engineering	It covers the optimization of cellular pathways for enhanced production of biofuels, pharmaceuticals, and biochemicals, promoting resource-efficient bioprocesses
M.Sc. Biotechnology	MBTE 307	PG	Microbial Technology	This course covers the application of microorganisms in industry, agriculture, and environmental management for sustainable production and pollution mitigation.
M.Sc. Biotechnology	MBTE 308	PG	Nanobiotechnology	This course focusing on the application of biotechnological tools to enhance crop productivity, pest resistance, and sustainable agriculture production.
M.Sc. Biotechnology	MBTE 310	PG	Energy & Environment	This course covers sustainable energy production, environmental conservation, and the mitigation of climate impacts, promoting practices aligned with SDGs.
M.Sc. Biotechnology	MBTE 311	PG	Synthetic Biology	This course focusing on the design and engineering of biological systems for innovative, sustainable applications in medicine, industry, and the environment.
M.Sc. Biochemistry	MBCT 301	PG	Environmental Biochemistry & Toxicology	This course focusing on the biochemical impacts of pollutants and toxic substances on ecosystems and human health, promoting sustainable environmental management.
M.Sc. Biochemistry	MBCT 302	PG	Plant Biochemistry and Natural Product	This course focusing on the biochemical pathways, bioactive compounds, and their applications in medicine, agriculture, and industry.
M.Sc. Biochemistry	MBCE 304	PG	Food Technology	It covers the processing, preservation, and innovation of safe and nutritious foods, promoting sustainable production and resource-efficient practices.



Program Name	Course Code	UG/PG	Course Title	Course Description
M.Sc. Biochemistry	MBCE 308	PG	Industrial Biochemistry	This course covers Industrial Biochemistry, focusing on the application of biochemical processes and enzymes in large-scale production of pharmaceuticals, biofuels, and chemicals, promoting sustainable and eco-efficient industrial practices

Evidence: https://srhu.edu.in/wp-content/uploads/2025/11/Course-Mapping-SDGs.pdf

