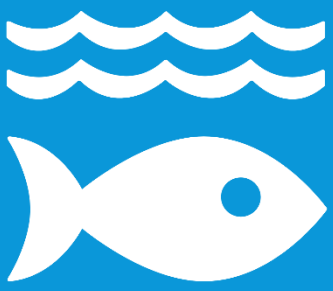
Swami Rama Himalayan University

NAAC A+

Report on

Sustainable Development Goal 14



LIFE BELOW WATER

SDG 14 Life Below Water

Sustainable Development Goal 14 (Life Below Water) focuses on the conservation and sustainable use of oceans, seas, marine resources and freshwater resources. Although SRHU is located at foothills of Himalayas, an inland and non-coastal region, the university emphasize on the contribution to this global agenda through scientific research, water ecosystem management, and biotechnological innovation with the target of maintaining and conserving aquatic environments. The efforts undertaken at Swami Rama Himalayan University showcase the University's commitment to environmental conservation, sustainable utilization of freshwater resource, and conservation of aquatic biodiversity.

Key focus areas of SRHU's SDG 14 research include

1. **Research on Marine Pollution**: SRHU focuses on Life Below Water to identifying the sources, impacts, and mitigation strategies for marine pollution, including microplastics and chemical contaminants. Researchers are developing eco-friendly alternatives, such as biodegradable materials, to reduce waste entering aquatic environments.
2. **Sustainable Aquaculture Practices**: The University emphasizes research into Life Below Water, sustainable aquaculture systems that ensure food security while minimizing environmental harm. This includes designing eco-friendly fish farming methods and exploring the use of organic feed. Water
3. **Conservation and Quality Management**: SRHU actively investigates water quality in freshwater and coastal ecosystems and Life Below Water. Projects prioritize sustainable water resource management, monitoring practices, and improving access to clean water for communities.
4. **Preservation of Aquatic Biodiversity**: Research programs focus on documenting and protecting aquatic biodiversity and Life Below Water, with particular attention to endangered and economically vital species. Efforts also include habitat restoration projects, such as mangrove and coral reef rehabilitation, using innovative techniques.

SRHU's research based on Life Below Water, as reflected in publications, demonstrates commitment to advancing sustainable technologies and environmental stewardship. The institution's faculty are actively contributing to the global knowledge base in areas such as next-generation fisheries, renewable energy, microbial and algal biotechnology, and innovative water purification methods. Collectively, these research efforts underscore SRHU's growing role in addressing critical ecological and technological challenges, while fostering impactful innovation that supports healthier ecosystems and more resilient communities.

14.1 Research on Life Below Water

The university actively contributes to SDG 14 through research that focuses on aquatic biodiversity, sustainable fisheries, water quality management, microalgae applications, constructed wetlands, bioremediation, and aquatic microbiology. These studies support healthier marine and freshwater ecosystems by generating scientific knowledge, promoting sustainable resource use, and developing environmentally sound technologies. The diverse range of publications reflects the institution's commitment to protecting aquatic life and addressing emerging environmental challenges through innovation, collaboration, and evidence-based research.

14.1.1 Life below water: Cite Score

Research publications under SDG 14 are featured in reputable journals with competitive Cite Scores, demonstrating strong academic visibility. Notable examples include Current Research in Microbial Sciences (Cite Score 10.0) and Journal of Genetic Engineering and Biotechnology (Cite Score 8.2), reflecting high-impact platforms where the university's aquatic research is disseminated. These Cite Scores indicate that the work is recognized, widely accessed, and contributes meaningfully to global scientific literature focused on aquatic systems and environmental sustainability.

14.1.2 Life below water: FWCI

FWCI values within the dataset show varied but meaningful research influence. Publications such as An overview of renewable energy sources… (FWCI 2.55) and Nano-filtration Applications… (FWCI 2.48) demonstrate above-average global citation performance, indicating strong relevance and scholarly engagement. Other works present moderate FWCI values ranging from 0.73 to 1.62, reflecting steady academic contribution within aquatic sciences. Overall, the FWCI metrics highlight impactful research that supports scientific advancements and fosters sustainable management of aquatic ecosystems.

14.1.3 Life below water: Publications

Faculty members at SRHU have made contributions through the publication of peer-reviewed research aimed at deepening scientific understanding and driving innovation in the field of aquatic health, water purification technologies, Life Below Water and bioremediation strategies. Their research not only advances theoretical knowledge but also offers practical solutions to pressing environmental challenges.

Swami Rama Himalayan University

Jolly Grant Swami Ram Nagar, beside Jolly Grant Airport, Dehradun, UK, India 60279822

2,053 Documents

203 Authors

Set document alert Give feedback

Documents Structure Collaborators Sustainable Development Goals 2023 (New)

New: See at one glance Sustainable Development Goals mapped to this organisation

Sustainable Development Goals (SDGs) are specific research areas that are helping to solve real-world problems. Elsevier data science teams have built extensive keyword queries, supplemented with machine learning, to map documents to SDGs with very high precision. Times Higher Education (THE) is using Elsevier SDG data mapping as part of its Impact Rankings. More about SDGs

SDG contributions

Goal 1: No poverty	12 documents	Goal 10: Reduced inequalities	15 documents
Goal 2: Zero hunger	59 documents	Goal 11: Sustainable cities and communities	28 documents
Goal 3: Good health and well-being	711 documents	Goal 12: Responsible consumption and productior	48 documents
Goal 4: Quality education	22 documents	Goal 13: Climate action	13 documents
Goal 5: Gender equality	23 documents	Goal 14: Life below water	7 documents
Goal 6: Clean water and sanitation	41 documents	Goal 15: Life on land	44 documents

SDG 14: Life below water (Screenshot)

List of Publications encompass a wide range of topics, including

	Title	Authors	Journal/Book	Year	Type	Cite score	FWCI
1	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	Conference Paper	NA	1.16
2	An overview of renewable energy sources: technologies, applications and role of artificial intelligence	Singh, V., Prasad, M., Aswal, R.S., Sharma, T., Patel, N.K.	Computer Vision and Machine Intelligence for Renewable Energy Systems	2024	Book Chapter	NA	2.55
3	Microbiological dimensions and functions in constructed wetlands: A review	Rani, A.T., Chauhan, M., Sharma, P.K., Mitra, D., Joshi, S.	Current Research in Microbial Sciences	2024	Review Article	10.0	0.86
4	Probiotics in Aquaculture	Chandra, S., Joshi, N.	Handbook of Aquatic Microbiology	2024	Book Chapter	NA	1.62
5	Microalgae-based bioremediation of heavy metals and emerging contaminants	Rajput, V., Dhatwalia, V.K. Jaiswal, K.K., Kurbatova, A.I., Vlaskin, M.S.	Algal Biotechnology	2023	Book Chapter	NA	0.76
6	Nano-filtration Applications for Potable Water, Treatment, and Reuse	Patel, N., Dhasmana, A., Kumari, S., Nayanam, S., Malik, S.M.	Advanced and Innovative Approaches of Environmental Biotechnology in Industrial Wastewater Treatment	2023	Book Chapter	NA	2.48
7	Exploring the diversity of endophytic fungi and screening for their pullulanase-producing capabilities	Naik, B., Goyal, S.K., Tripathi, A.D., Vijay, K.	Journal of Genetic Engineering and Biotechnology	2021	Research Article	8.2	0.73

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

14.2. Supporting Aquatic Ecosystem Through Education

14.2.1 Freshwater Ecosystem (Community Outreach)

SRHU is actively engaged in diverse initiatives across biological, environmental sciences and Life Below Water. Under the Jal Jeevan Mission (JJM), extensive efforts were undertaken during the planning, implementation, and post-implementation phases across 60 villages in Dehradun district, Uttarakhand. The core objective of the mission was to ensure access to safe, reliable, and adequate drinking water for every rural household through the creation of sustainable and community-managed water supply systems. The initiative emphasized strengthening local water governance, community ownership, and the long-term sustainability of rural water resources.

Swami Rama Himalayan University (SRHU) played a pivotal role in facilitating various components of the mission. The university led the process of forming and strengthening Village Water and Sanitation Committees (VWSCs) - key institutions at the village level responsible for the management, operation, and maintenance of local water supply systems. These committees were established with active participation from community members, ensuring inclusivity and local accountability. To support the effective functioning of VWSCs, SRHU organized a series of capacity-building and training programs for Panchayati Raj Institution (PRI) representatives, ASHA workers, and Anganwadi workers. The training sessions focused on scheme management, water safety protocols, record-keeping, hygiene promotion, and community engagement strategies.

The interventions also promoted community ownership, encouraging beneficiaries to take an active role in maintaining the water supply infrastructure. Regular awareness campaigns were organized under Social and Behavioural Change Communication (SBCC) to educate rural households on the importance of water conservation, sanitation, and hygiene. These campaigns fostered behavioural transformation, particularly regarding water use efficiency, greywater management, and environmental protection.

The village data has been provided by the Govt. of India on Jal Jeevan Mission portal which can be accessed through **https://ejalshakti.gov.in/jjmreport/JJMIndia.aspx.**

Major activities conducted under the Jal Jeevan Mission include:

- Conducting Household Baseline Surveys to assess existing water supply conditions and household requirements.
- Formation and strengthening of Village Water and Sanitation Committees (VWSCs).
- Opening of VWSC bank accounts to enable transparent fund management.
- Organizing training and capacity-building programs for VWSC members, ASHA workers, Anganwadi staff, and PRI representatives.

- Conducting Sanitary Surveys, promoting Greywater Management, and facilitating Functional Household Tap Connections (FHTCs).
- Implementing Social and Behavioural Change Communication (SBCC) activities to promote awareness on hygiene, sanitation, and water conservation.
- Regular water quality testing using Field Testing Kits (FTKs).
- Conducting hygiene and sanitation awareness campaigns in villages.
- Facilitating community contributions in the form of cash and labour for local ownership.

Table 1: List of villages covered by SRHU under Jal Jeevan Mission (JJM)

S.N.	Block	Gram Panchayat	Revenue Village
1	Chakrata	Masak	Masak
2		Kunain	Kunain
3			Sainj
4		Begi	Bagni
5		Kulha	Kulha
6		Koti Kanaser	Koti Kanaser
7		Hartad Santad	Hartad Santad
8		Maletha	Maletha
9			Dunwa
10		Mothi	Mothi
11		Dhouhra Pudiya	Dhouhra Pudiya
12		Mindal	Mindal
13		Jadi	Jadi
14			Sijla
15		Kandher	Kandher
16			Indroli
17		Samog	Samog
18		Dabla	Dabla
19		Kunain	Kunain
20		Kunna	Kunna
21		Khabau	Khabau
22		Burayala	Jagthan
23		Mailot Kwanu	Mailot Kwanu
24		Chatra	Chatra
25			Hanol
26		Bulhad	Bulhad
27		Mehrawna	Mehrawna
28			sirwa

S.N.	Block	Gram Panchayat	Revenue Village
29		Lakhamandal	Lakhamandal
30		Raigee	Sedia
31		Tyuna	Tyuna
32			Mangtad
33		Radu	Radu
34		Purtad	Purtad
35		Mungad	Mungad
36		Sujau	Sujau
37		Bagna	Bagna
38			Bhandrauta
39			Sarsona
40		Kaha Nehra Punah	Kaha Nehra Punah
41			Balnu
42			Bhauda
43		Khani	Khani
44			Kuitha
45		Khataar	Bhugtaar
46			Samaya
47	Kalsi	Lakhwad	Lakhwad
48		Masrad	Masrad
49			Lalau
50		Sakrol	Chunau
51			Gadur Sakrol
52			Khadeen
53		Rikholi	Rikholi
54		Bhitarli	Bhitarli
55	Sahaspur	Kotda Kanlyanpur	Kotda Kanlyanpur
56			Birsani
57			Nahad
58	Vikas	Tauli	Tauli
59	Nagar	Pashta	Pashta
60	Raipur	Chhamroli	Chhamroli

Glimpses of activities undertaken by the University under Jal Jeevan Mission

14.2.2 Sustainable Fisheries (Community Outreach)

SRHU is actively involved in multidisciplinary research addressing various aspects of fisheries and Life Below Water. Future initiatives will explore to promote sustainable fishery practices and community-based resource management.

14.2.3 Overfishing (Community Outreach)

SRHU is engaged in research related to fish biology, ecology, Life Below Water and aquatic resource management. Community outreach programs specifically addressing the issue of overfishing will be developed in the future to raise awareness and promote sustainable fishing practices.

14.3 Supporting Aquatic Ecosystem Through Action

14.3.1 Conservation and Sustainable Utilization of the Ocean (Events)

SRHU is deeply committed to promoting sustainable and conscious water use beyond its campus, working directly with communities across India to raise awareness and build practical skills in water conservation and Life Below Water. Through its Knowledge Resource Centre (KRC-HIHT), the University has carried out a series of field-based training and exposure visits across various states, including Uttarakhand, Himachal Pradesh, Gujarat, Kerala, Goa, Sikkim, West Bengal, Lakshadweep, Daman & Diu, and the Andaman & Nicobar Islands during 2023–2024. These visits were designed to give participants—from engineers and development professionals to local community leaders and members of Village Water and Sanitation Committees (VWSCs)—firsthand experience of how sustainable water management practices work on the ground. The programs covered a wide range of topics such as riverbank filtration, spring rejuvenation, greywater management, aquifer recharge, and the use of nature-based solutions for water sustainability.

In every location, participants interacted closely with local communities and VWSCs to learn about their challenges, solutions, and roles in maintaining water systems. These interactions helped bridge scientific knowledge with traditional wisdom and demonstrated how community participation is essential for long-term water security. Throughout these programs, the University emphasized the principles of Reduce, Reuse, Recycle, and Recharge (4R) and the broader ideas of circular economy and net-zero water management.

Activity:

Date: 04-06/12/2023

Location: Dadra & Nagar Haveli and Daman & Diu

SRHU organized one on-field exposure visit at the Treatment Plant, Dunetha, Gram Panchayat Dunetha, Nani Daman, and along the Daman Ganga Riverbank at Patlara–Magarwada, Moti Daman, to explain Riverbank Filtration techniques. During the visit, participants also interacted with the community and Village Water & Sanitation Committee (VWSC). The field visit was facilitated by Er. H.P. Uniyal, Advisor, SRHU, along with other resource persons. After the field visit, all participants presented their learnings in front of the panel.

At the end of the training the training was concluded with participants' findings, learnings, and feedback of the training session along with certificate distribution ceremony. The training had been very interactive and full of exposure to participants which came forward during informal interactions and discussions with them. Participants appreciated the initiatives of KRC-HIHT for organizing training on the topic of grey water management: Reduce, Reuse, Recycle and Recharge for enhancing water use efficiency, Nature based Solutions and Technologies for Grey Water Management.

Picture of training program

Training on Grey Water Management: Circular Economy and Net-zero Concept, Nature based Solution and Technologies

Participants
Level- 2 (Mid Management)
Sponsored by
National Jal Jeevan Mission
Ministry of Jal Shakti, Govt. of India
Organized by
Key Resource Center- Himalayan Institute Hospital Trust
Swami Ram Nagar, Dehradun (Uttarakhand)
Supported by
Public Works Department, UT Administration of DNH and Daman & Diu
Venue: Daman, DNH and Daman & Diu Date: 04 Dec. - 06 Dec. 2023

Attendance Sheet (04 Dec- 06 Dec 2023)- Residential Training Program (Level- 2)

S. N.	Name of participant	Designation	Department	District and/or State	Contact (Ph. No & Email)	Attendance			Is accommodation availed?	
						Day-1 (04.12.23)	Day- 2 (05.06.23)	Day- 3 (06.06.23)	Yes/ No	Signature
1	Sandip Tamboli	Assistant Engineer	PWD	Daman, DNH and Daman & Diu	9825597700				No	
2	Hitesh Dhuka	Executive Engineer	PWD	Daman, DNH and Daman & Diu	9909994772				NO	
3	Keyur A Patel	Junior Engineer	UDD	Daman, DNH and Daman & Diu	9904479000				NO	
4	Ritesh H Patel	Junior Engineer	PRD	Daman, DNH and Daman & Diu	9913040813				NO	

Executive Engineer
P.W.D., W.D.-I, Daman.

KRC-HIHT

Attendance

14.3.2 Food from Aquatic Ecosystem (Policies)

Policy for the Management of Aquatic Food Resources

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 the Management of Aquatic Food Resources

1. **Short Title & Commencement**
   - 1.1 This Policy shall be called the "**Policy for the Management of Aquatic Food Resources**" 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 promotes the sustainable use and sourcing of food from aquatic ecosystems, including fish, shellfish, and other marine and freshwater resources. Its goal is to ensure that aquatic food sourcing supports biodiversity, maintains ecosystem health, and contributes to long-term food security.

3. **Scope**

This policy applies to:

- 3.1 All seafood and aquatic food products purchased, served and processed.
- 3.2 All suppliers, contractors, and partners involved in the harvesting, processing, or distribution of aquatic foods.
- 3.3 Activities related to aquaculture and wild-capture fisheries.

4. **Goals**

The policy goals are to:

- 4.1 Source aquatic food only from sustainable and legal fisheries or aquaculture operations.
- 4.2 Avoid species that are endangered, overexploited, or caught/produced through destructive practices.
- 4.3 Promote traceability and transparency throughout the supply chain.
- 4.4. Support local and small-scale fisheries that follow responsible practices.
- 4.5 Educate staff and suppliers about sustainable aquatic food sourcing.

5. **Implementation Measures**

The University will implement following measures:

5.1 Responsible Sourcing

- 5.1.1 Prioritize products certified by credible sustainability standards (e.g., MSC – Marine Stewardship Council, ASC – Aquaculture Stewardship Council, Friend of the Sea, or equivalent).

Report Title	Website link
Policy for the management of Aquatic food resources	https://srhu.edu.in/policy-for-the-management-of-aquatic-food-resources/

14.3.3. Maintain Ecosystem and Their Biodiversity (Direct Work)

The School of Biosciences (SBS) at SRHU houses two dedicated laboratories that contribute directly to research and capacity-building under SDG 14 Life Below Water:

(i) **Algal Culture Laboratory** focused on Life Below Water, ecological restoration through microalgae-based bioremediation, microbial ecosystem engineering, and innovative water purification technologies; and

(ii) **Aquatic Toxicology Laboratory** driving advancements in Life Below Water, sustainable fisheries and aquatic microbiology; both facilities support hands-on training and interdisciplinary research that strengthen aquatic ecosystem resilience while advancing scientific solutions for the conservation and sustainable use of aquatic resources.

1) Algal Culture Laboratory

Algal Culture Laboratory enables the isolation, cultivation, and characterization of microalgae with practical applications in wastewater remediation, Life Below Water and environmental surveillance. It also provides a platform for academic training and interdisciplinary research in algal biotechnology and the preservation of aquatic health.

Algal Culture Technology lab at School of Biosciences (SRHU)

2) Aquatic Toxicology Laboratory

Performs eco-toxicological analyses to evaluate the effects of pollutants and emerging contaminants on Life Below Water, ecosystems. It serves to study environmental risk assessment and the monitoring of water quality in inland aquatic environments. The laboratory supports the development of mitigation strategies to reduce ecological harm and contributes scientific evidence. It also provides experiential learning opportunities for students and promotes collaborative research addressing the preservation and sustainable management of freshwater resources.

Aquatic toxicology lab at School of Biosciences (SRHU)

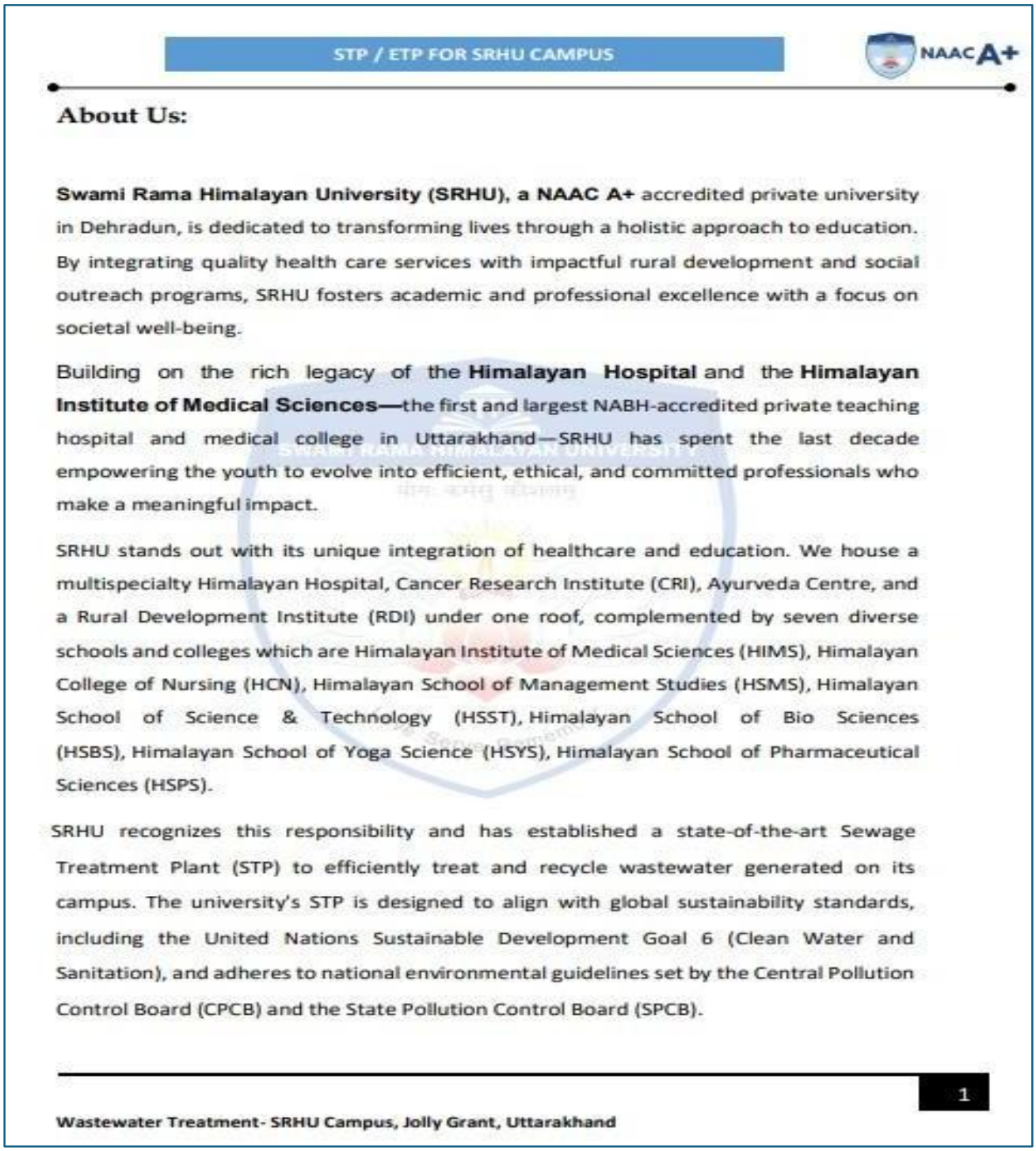
14.3.4 Technologies Towards Aquatic Ecosystem Damage Prevention (Direct Work)

SRHU team has been associated with Life Below Water through the publication of peer-reviewed research aimed at deepening scientific understanding and driving innovation in the field of aquatic health, water purification technologies and Life Below Water.

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

14.4 Water Sensitive Waste Disposal

14.4.1 Water Discharge Guideline and Standards



STP / ETP FOR SRHU CAMPUS

NAAC A+

About Us:

Swami Rama Himalayan University (SRHU), a NAAC A+ accredited private university in Dehradun, is dedicated to transforming lives through a holistic approach to education. By integrating quality health care services with impactful rural development and social outreach programs, SRHU fosters academic and professional excellence with a focus on societal well-being.

Building on the rich legacy of the **Himalayan Hospital** and the **Himalayan Institute of Medical Sciences**—the first and largest NABH-accredited private teaching hospital and medical college in Uttarakhand—SRHU has spent the last decade empowering the youth to evolve into efficient, ethical, and committed professionals who make a meaningful impact.

SRHU stands out with its unique integration of healthcare and education. We house a multispecialty Himalayan Hospital, Cancer Research Institute (CRI), Ayurveda Centre, and a Rural Development Institute (RDI) under one roof, complemented by seven diverse schools and colleges which are Himalayan Institute of Medical Sciences (HIMS), Himalayan College of Nursing (HCN), Himalayan School of Management Studies (HSMS), Himalayan School of Science & Technology (HSST), Himalayan School of Bio Sciences (HSBS), Himalayan School of Yoga Science (HSYS), Himalayan School of Pharmaceutical Sciences (HSPS).

SRHU recognizes this responsibility and has established a state-of-the-art Sewage Treatment Plant (STP) to efficiently treat and recycle wastewater generated on its campus. The university's STP is designed to align with global sustainability standards, including the United Nations Sustainable Development Goal 6 (Clean Water and Sanitation), and adheres to national environmental guidelines set by the Central Pollution Control Board (CPCB) and the State Pollution Control Board (SPCB).

1

Wastewater Treatment- SRHU Campus, Jolly Grant, Uttarakhand

Report Title	Website link
STP/ETP for SRHU campus	Link

14.4.2 Action Plan to Reducing Plastic Waste

Phasing Out Single Use Plastics

Swami Rama Himalayan University (SRHU) in Jolly Grant, Dehradun, has implemented a comprehensive set of initiatives to reduce or eliminate single-use plastics on its campus. These efforts align with the university's broader commitment to environmental sustainability and have garnered recognition, including the CII-Gold Award in the "Green Practices Award" category

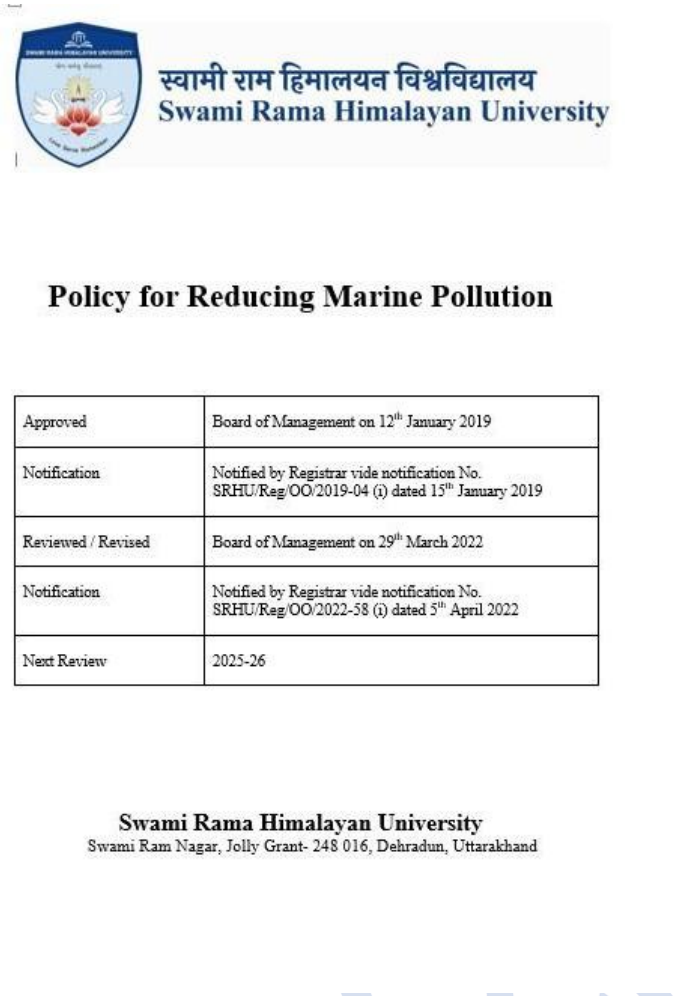
Transition to biodegradable or compostable alternative

To reinforce its commitment to sustainability, Swami Rama Himalayan University has installed "Plastic-Free Campus" signage across the campus. These signs serve as constant reminders for students, staff, and visitors to avoid single-use plastics and support the university's initiatives like the Plastic Waste Bank and plastic-to-diesel recycling project. The signage not only promotes awareness but also fosters a culture of environmental responsibility within the university community.

SWAMI RAMA HIMALAYAN UNIVERSITY 1

Report Title	Website link
Phasing out single use plastic	Link

14.4.3 Reduction Marine Pollution (Policy)

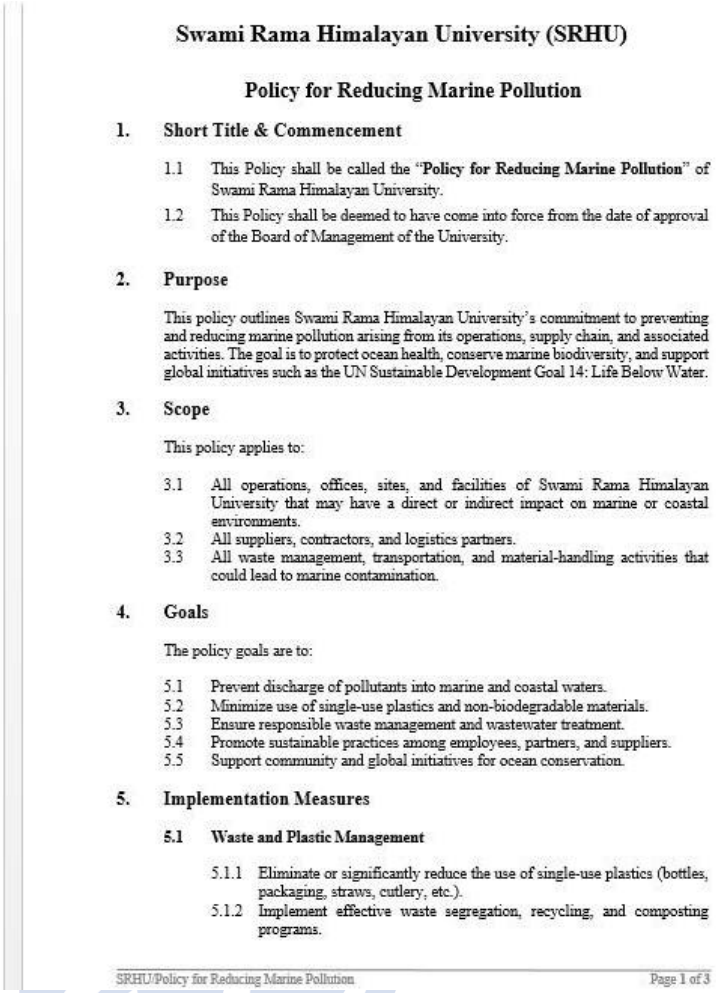


स्वामी राम हिमालयन विश्वविद्यालय
Swami Rama Himalayan University

Policy for Reducing Marine Pollution

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 (SRHU)

Policy for Reducing Marine Pollution

1. Short Title & Commencement

1.1 This Policy shall be called the "**Policy for Reducing Marine Pollution**" 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 outlines Swami Rama Himalayan University's commitment to preventing and reducing marine pollution arising from its operations, supply chain, and associated activities. The goal is to protect ocean health, conserve marine biodiversity, and support global initiatives such as the UN Sustainable Development Goal 14: Life Below Water.

3. Scope

This policy applies to:

3.1 All operations, offices, sites, and facilities of Swami Rama Himalayan University that may have a direct or indirect impact on marine or coastal environments.
3.2 All suppliers, contractors, and logistics partners.
3.3 All waste management, transportation, and material-handling activities that could lead to marine contamination.

4. Goals

The policy goals are to:

5.1 Prevent discharge of pollutants into marine and coastal waters.
5.2 Minimize use of single-use plastics and non-biodegradable materials.
5.3 Ensure responsible waste management and wastewater treatment.
5.4 Promote sustainable practices among employees, partners, and suppliers.
5.5 Support community and global initiatives for ocean conservation.

5. Implementation Measures

5.1 Waste and Plastic Management

5.1.1 Eliminate or significantly reduce the use of single-use plastics (bottles, packaging, straws, cutlery, etc.).
5.1.2 Implement effective waste segregation, recycling, and composting programs.

SRHU/Policy for Reducing Marine Pollution Page 1 of 3

Report Title	Website link
Policy for Reducing Marine Pollution	https://srhu.edu.in/policy-for-reducing-marine-pollution/

14.5 Maintaining Local Ecosystem Universities Need to Demonstrate

14.5.1 Minimizing Alteration of Aquatic Ecosystem (Plan)

SRHU promotes responsible water usage to support Life Below Water through conservation practices, and recycling initiatives. Rainwater harvesting and treated wastewater reuse help reduce freshwater dependency across the campus and hospital facilities. Water-efficient fixtures and regular maintenance minimize wastage and ensure sustainability to support Life Below Water. SRHU is committed to preserving water resources through awareness, monitoring, and eco-friendly practices.

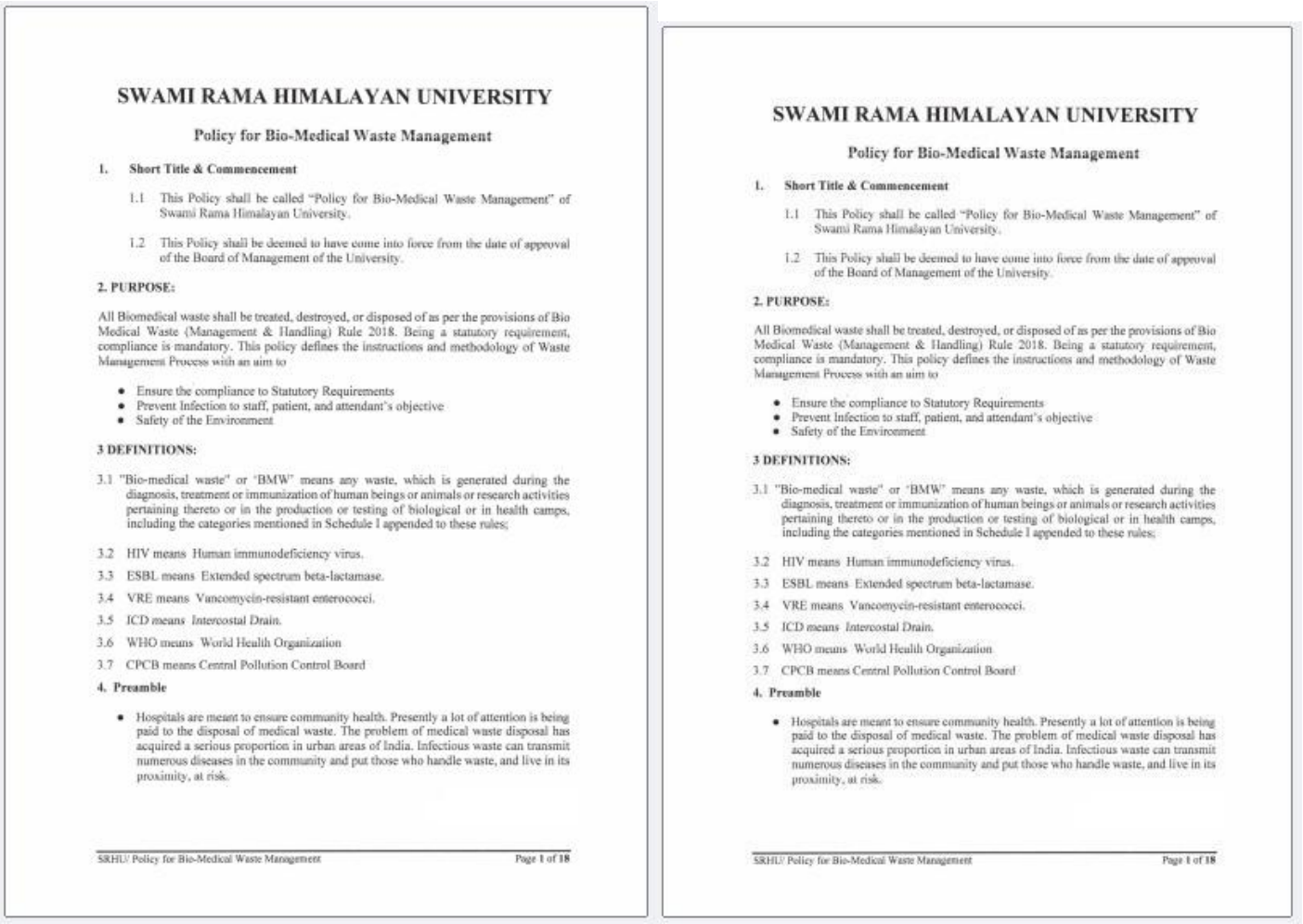
SRHU treats wastewater through a modern Sewage Treatment Plant (STP) to ensure safe and eco-friendly disposal. The treated water meets environmental standards and is reused for landscaping, gardening and flushing. This reduces the demand for fresh water and supports sustainable campus operations. SRHU emphasizes responsible wastewater management to protect the Life Below Water and conserve resources.

Sewage Treatment Plant/ ETP

1) Capacity of STP is 1 MLD and ETP of 90 KLD
2) 6,10,000 litre water is used for irrigation of green belt of 1,60,800 sqm area.
3) The manure produced through STP is utilized in green belt
4) The STP inlet and outlet water is tested every six months from NABL accredited laboratory and found within norms.

Regular monitoring and maintenance ensure compliance with environmental standards to conserve Life Below Water and protect surrounding water resources.

Sewage Treatment Plant and Effluent Treatment Plant (ETP) at SRHU



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.

2. 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 DEFINITIONS:

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 Organization

3.7 CPCB means Central Pollution Control Board

4. Preamble

- 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 Page 1 of 18

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.

2. 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 DEFINITIONS:

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.

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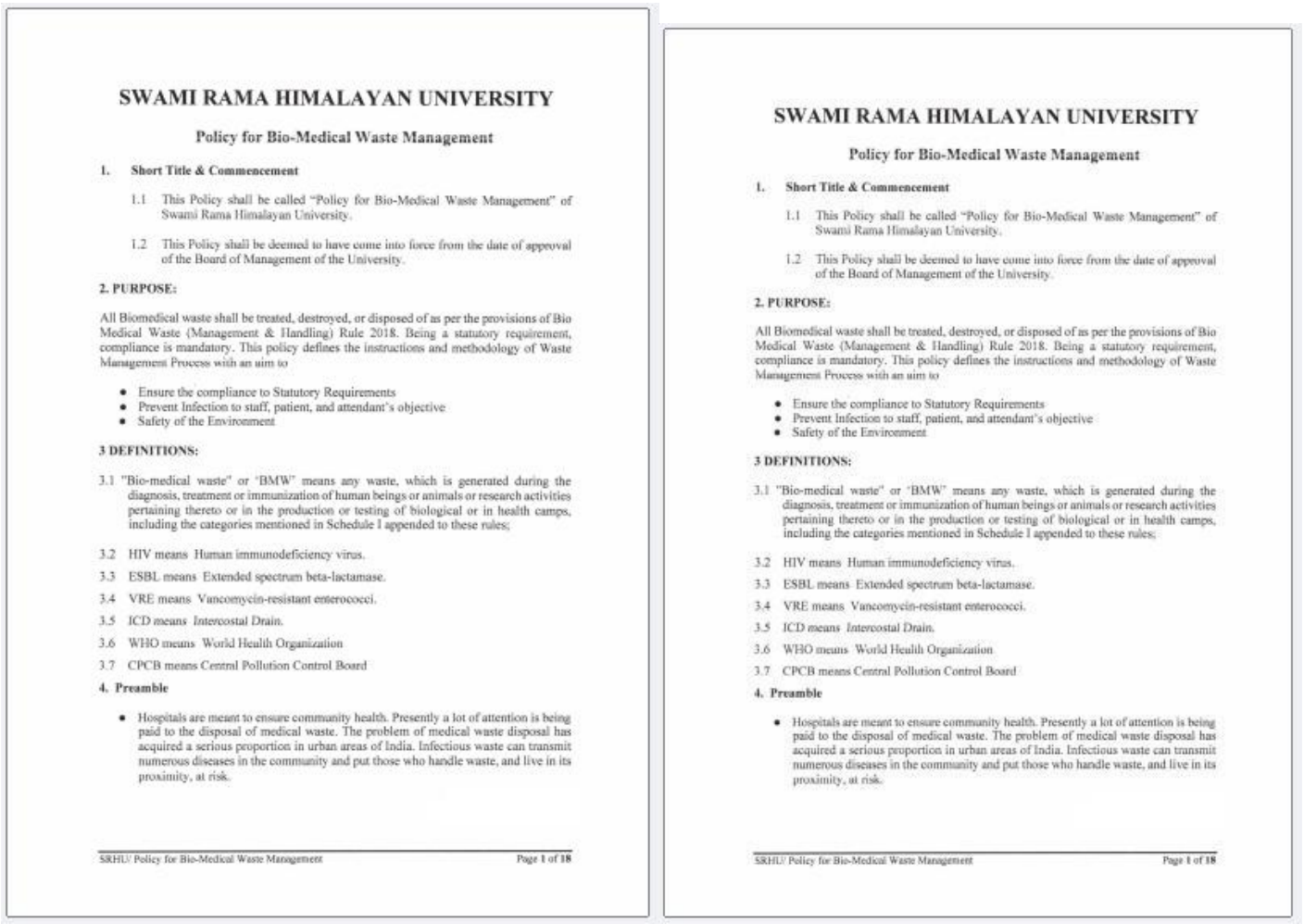
SRHU/ Policy for Bio-Medical Waste Management Page 1 of 18

Screenshot of policy front pages

Report Title	Website Link
Policy for Biomedical waste management	Link

14.5.2 Monitoring Health of Aquatic Ecosystem

SRHU prevents water system pollution through regular monitoring of water quality and strict control of wastewater discharge. Oil traps, sedimentation chambers and proper biomedical waste segregation prevent contaminants from entering the water system. Hazardous chemicals from laboratories and hospitals are treated separately before disposal. Awareness programs and maintenance audits ensure pollution-free and sustainable water management on campus to conserve Life Below Water. SRHU has a well-established process to prevent water system pollution on campus. Wastewater is treated through an operational STP before reuse or discharge, and oil traps, sedimentation units, and chemical neutralization systems prevent harmful contaminants from mixing with water sources. Biomedical and laboratory waste is handled separately as per regulatory norms. Regular monitoring and maintenance ensure compliance with environmental standards and protect surrounding water bodies.



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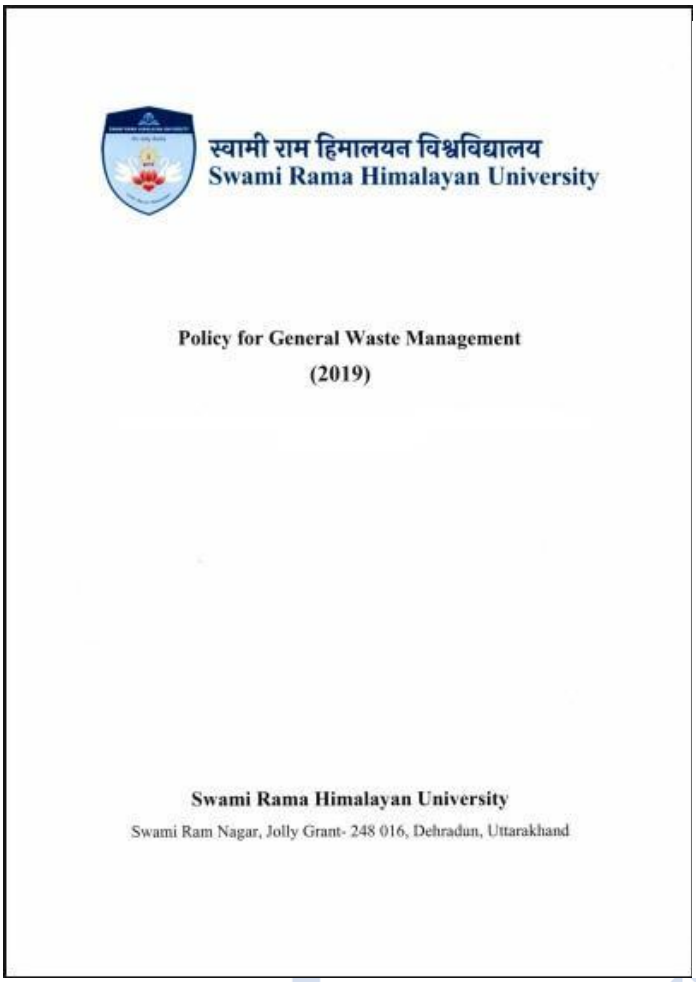
SRHU/ Policy for Bio-Medical Waste Management Page 1 of 18

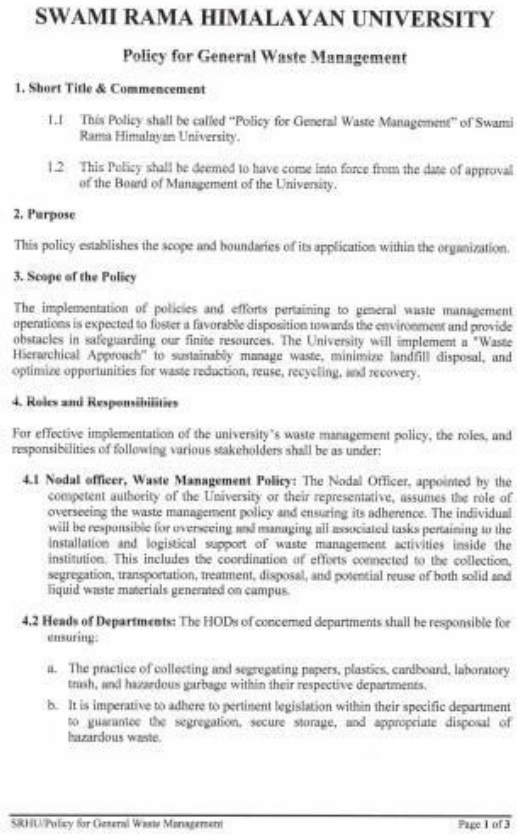
Screenshot of policy front pages (Biomedical waste management)



स्वामी राम हिमालयन विश्वविद्यालय
Swami Rama Himalayan University

Policy for General Waste Management
(2019)

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



SWAMI RAMA HIMALAYAN UNIVERSITY

Policy for General Waste Management

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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.

2. Purpose

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

3. Scope of the Policy

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:

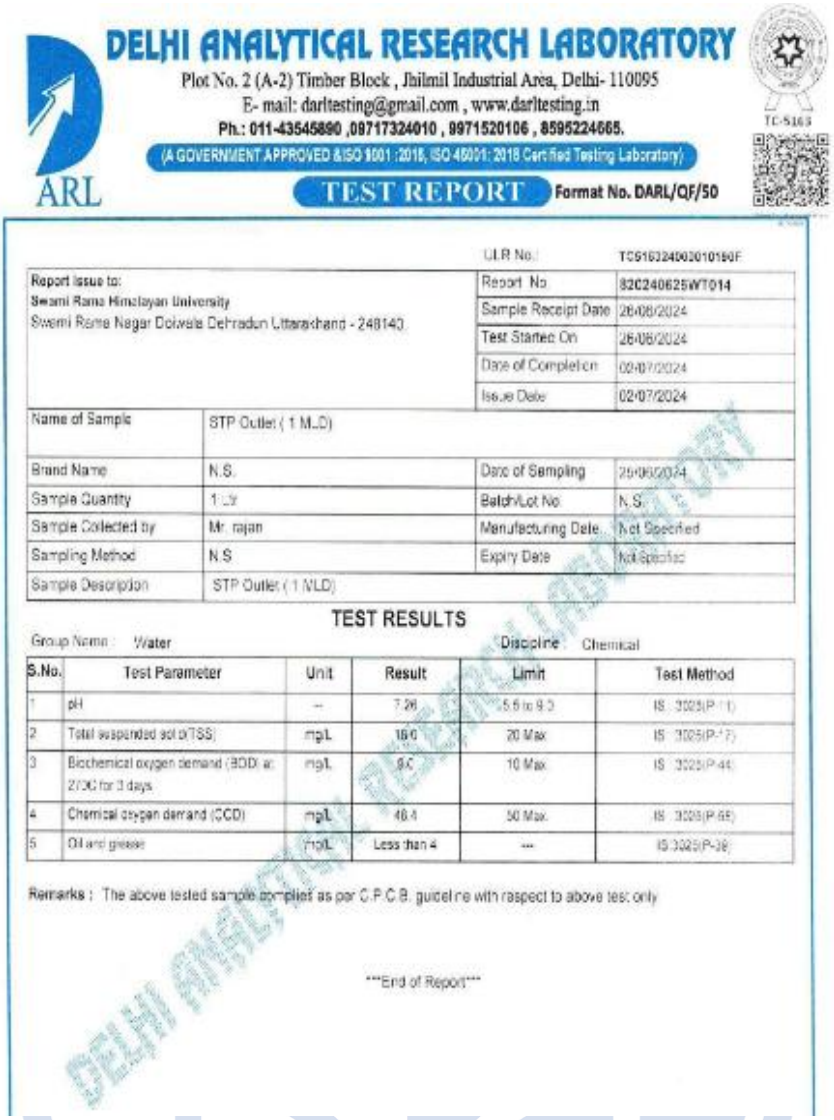
a. The practice of collecting and segregating papers, plastics, cardboard, laboratory trash, and hazardous garbage within their respective departments.

b. It is imperative to adhere to pertinent legislation within their specific department to guarantee the segregation, secure storage, and appropriate disposal of hazardous waste.

SRHU/Policy for General Waste Management Page 1 of 3

Screenshot of policy front pages (General Waste Management)

Policy Title	Website Link
Policy for Biomedical waste management	Link
Policy for General Waste Management	Link



DELHI ANALYTICAL RESEARCH LABORATORY

Plot No. 2 (A-2) Timber Block , Jhilmil Industrial Area, Delhi- 110095

E- mail: darltesting@gmail.com , www.darltesting.in

Ph.: 011-43545890 ,09717324010 , 9971520106 , 8595224665.

(A GOVERNMENT APPROVED &ISO 9001:2015, ISO 45001: 2018 Certified Testing Laboratory)

TEST REPORT Format No. DARL/QF/50

ARL

TC-5163

ULR No.: TC516324000010190F

Report Issue to: Swami Rama Himalayan University Swami Rama Nagar Doiwala Dehradun Uttarakhand - 248140		Report No	82C240625WT014
		Sample Receipt Date	26/06/2024
		Test Started On	26/06/2024
		Date of Completion	02/07/2024
		Issue Date	02/07/2024
Name of Sample	STP Outlet (1 MLD)		
Brand Name	N.S.	Date of Sampling	26/06/2024
Sample Quantity	1 Ltr	Batch/Lot No	N.S.
Sample Collected by	Mr. rajan	Manufacturing Date	Not Specified
Sampling Method	N.S	Expiry Date	Not Specified
Sample Description	STP Outlet (1 MLD)		

TEST RESULTS

Group Name : Water Discipline : Chemical

S.No.	Test Parameter	Unit	Result	Limit	Test Method
1	pH	--	7.26	5.5 to 9.0	IS: 3025(P: 11)
2	Total suspended solid (TSS)	mg/L	18.0	20 Max	IS: 3025(P: 17)
3	Biochemical oxygen demand (BOD) at 27°C for 3 days	mg/L	9.0	10 Max	IS: 3025(P:44)
4	Chemical oxygen demand (COD)	mg/L	46.4	50 Max	IS: 3025(P:58)
5	Oil and grease	mg/L	Less than 4	---	IS:3025(P-39)

Remarks : The above tested sample complies as per C.P.C.B. guideline with respect to above test only

End of Report

Water quality test report of STP outlet

14.5.3 Programmes Towards Good Aquatic Stewardship Practices

The university's current activities are primarily focused on research and academic training in aquatic, Life Below Water and environmental sciences. Future initiatives may aim to foster community engagement and awareness on sustainable aquatic resource management.

14.5.4 Collaboration for Shared Aquatic Ecosystem

As SRHU is actively involved in research related to aquatic biodiversity, Life Below Water and ecosystem studies. Further, in continuation to conserve Life Below Water, SRHU has signed a MOU with ICIMOD (International Centre for Integrated Mountain Development) with the objective of jointly developing, testing, and scaling innovative solutions for spring-shed management and other nature-based solutions (NbS). Furthermore, this partnership seeks to facilitate knowledge exchange and cooperation among

experts across the Hindu Kush Himalayan (HKH) region, promoting the adoption of advanced technologies and best practices for Life Below Water and ecosystem management.

ICIMOD

LETTER OF INTENT (LoI)

Between

Swami Rama Himalayan University (SRHU)
Uttarakhand, India

And

International Centre for Integrated Mountain Development (ICIMOD)
Kathmandu, Nepal

Concerning

Collaboration for the co-development and scaling of spring-shed water management

June 2023

Letter of Intent Between ICIMOD and SRHU

1 | Page

Registrar

SRHU signed Letter of Intent (LoI) with ICIMOD, Kathmandu, Nepal, for collaboration on co-development and scaling of spring-shed water management

Evidence: https://srhu.edu.in/wp-content/uploads/2025/09/53-LOI-A-ICIMOD.pdf

14.5.5 Watershed Management Strategy

Swami Rama Himalayan University (SRHU), through its Key Resource Centre (KRC) under the Jal Jeevan Mission (JJM), has played a transformative role in building the technical and managerial capacities of government officials, engineers, and community representatives working in the Life Below Water and sanitation sector. The University has successfully conducted various training programs across India. These training programs addressed critical themes such as the direct injection of treated rainwater into aquifers, revival of natural springs and springshed management, operation and maintenance of water supply systems, revival of traditional water bodies for source sustainability, greywater management.

Through its WATSAN Department, SRHU has implemented a wide range of Integrated Water Resource Management (IWRM) and environmental initiatives across various villages in Uttarakhand and other states. These initiatives include source recharge and rejuvenation, rainwater harvesting, water quality monitoring, revival of traditional water bodies, and community-based awareness programs on sustainable WASH practices.

The University has also emphasized environmental and natural resource management (NRM), linking traditional wisdom with scientific approaches to create practical models for sustainable water management.

In addition, SRHU regularly organizes community awareness and capacity-building programs to strengthen water conservation and sanitation practices. These include workshops, field demonstrations, and practical training sessions on spring-shed management, rainwater harvesting, source sustainability, wastewater reuse.

The programs aimed to build participants' capacities in these areas, equipping them with skills and knowledge to implement spring-based water supply systems. These systems are designed to be safe, reliable, and effective for communities living in mountainous regions, ensuring sustainable water resources and improved water management.

1. **Training on Operation and Maintenance of Water Supply Systems, Utility Approach & Tariff Collection Mechanism:** Three training programs were conducted on the Operation and Maintenance (O&M) of Water Supply Systems, focusing on utility approaches and tariff collection mechanisms. These programs took place in Sikkim, Andaman & Nicobar Islands, and Lakshadweep Islands, with a total of 152 mid-level engineers' participating. The primary objective was to address cross-cutting issues related to rural water supply schemes and water resource management.
   Participants were educated on O&M practices in accordance with the 73rd Amendment Act and reforms in rural drinking water supply. The training also covered disinfection systems for potable water supply, enhancing participants' understanding and skills in managing safe and effective water supply systems.

Training on Operation and Maintenance of Water Supply Systems

2. **Training on Revival of Traditional Water Bodies for Source Sustainability:** Three training programs were held on the Revival of Traditional Water Bodies for Source Sustainability, targeting mid-level engineers from Kerala, Maharashtra, Himachal Pradesh, Uttarakhand, and Gujarat. A total of 118 engineers participated in these sessions. The main objectives of the training were to highlight the cross-cutting issues related to rural water supply schemes and water resource management and focus on the revival of traditional water bodies for ensuring the sustainability of water sources. The training also covered the processes involved in the recharge of watersheds, traditional water bodies and structures used for recharging and reviving these water bodies. These programs aimed to enhance participants' knowledge and capabilities in managing and conserving traditional water bodies, contributing to long-term water source sustainability.

Participants during revival of traditional water bodies for sustainability

3. **Training on Grey Water management:** Training programs were conducted on Grey Water Management, focusing on the principles of reducing, reusing, recycling, and recharging grey water to enhance water use efficiency. The trainings were conducted in Dadar & Nagar Haveli and Daman & Diu, Kerala, and Goa, with a participation of total of 157 mid-level engineers. The training covered:

    - **Basics and Issues of Grey Water Management**: Understanding the fundamentals and the challenges associated with grey water management within the context of the Jal Jeevan Mission.
    - **Need for Grey Water Treatment**: Criteria for treatment, use of technologies, pollutant levels, and the impact of using undertreated water.

Participants actively participating during training on Grey Water management