

6 CLEAN WATER
AND SANITATION



Progress Report
(2022-23)

SDG 6 Clean Water and Sanitation

The United Nations General Assembly's 17 Goals for Sustainable Development (SDG's) provide priorities to work towards the well-being of the Earth and its people. Integral University understands the importance and urgent nature of SDG's and is committed to contribute in achievement of SDGs. The commitment towards SDGs is reflected through the work done within departments, and other units of the university. Progress reports of SDG 6 is as follows.

Metric	Description
6.1 Research on water	A valuable resource that is essential to our everyday existence, water supports everything from education to agriculture. At Integral University, we recognize that using water responsibly is not only essential, but also a shared obligation. We must acknowledge the limited nature of this resource and implement strategies that encourage its effective usage as we work to establish a sustainable campus environment. Our dedication to water conservation is demonstrated by a number of programs designed to increase knowledge and promote ethical behavior among staff, professors, and students. We can greatly lessen our water footprint by teaching the university community the value of water conservation and putting sensible measures in place. More than 72 research articles have been published in the field of Clean Water and Sanitation.
6.2.1 Water consumption tracking	As part of its commitment to water sustainability, Integral University (IU) tracks water usage daily throughout the campus. To evaluate the water footprint on campus, IU measures the amount of water that is used, treated, recycled, and reused. Consumption, which includes drinking, cleaning, washing, cooking, and other activities, is the easiest way to start measuring water footprint. Every building has a water meter installed to monitor water usage. A committed team records daily water usage, and the maintenance officer receives the report. The maintenance officer then examines weekly water consumption statistics and suggests corrective actions to be taken.
6.3.1 Wastewater treatment	Water conservation advocates preserving, controlling, and ensuring the development of clean water resources of all types (surface as well as groundwater). It also includes the prevention of pollution that abuses and contaminates water resources. It stresses all the measures, strategies, and policies that promise to fairly manage the natural resources of consumable water. Integral University is extremely conscious of the importance of water conservation and adopts all such measures and strategies that take good care of water usage and prevent the wastage of water in the entire university campus. To meet ever increasing demand for water, at present and future, University stays proactive in placing efforts to conserve water resources as far as possible. Below are the provisions, practices, and facilities endorsed and established by the university for water conservation. • Rainwater Harvesting (RWH) System • Sewage Treatment Plant (STP) • Sensor-based Water Tanks • Water Recharge Wells • Construction of Bunds • Grounded Bore-Wells

	To ensure the prevention of water wastage University hires full-time plumbers for performing maintenance work of the water distribution system which ran throughout the campus. For the re-utilization of wastewater, Integral university has established its own Sewage Treatment Plant (STP) within its premises. The STP plant has a capacity of 1.5 MLD (Million Litter Discharge).
6.3.2 Preventing water system pollution	An extensive solid waste management system that is essential to environmental preservation has been built by Integral University. By putting strict procedures in place that stop pollution and protect the surrounding ecosystem, the institution is dedicated to upholding ecological integrity. IU strategy shows a strong dedication to sustainable campus operations and environmental management. Following actions are done by the IU to prevent water system pollution: 1. Every building has its own pipeline for roof/rainwater, blackwater, and greywater. 2. The university maintains and practices eco-friendly campus operations. To collect both dry and wet waste, trash cans are positioned throughout the university. 3. All of the female hostels have sanitary napkin incinerators. 4. On campus, we discourage the use of single-use plastics and promote the use of free, safe drinking water from the Reverse Osmosis (RO) plant by visitors, employees, and students.
6.3.3 Free drinking water provided	Reverse osmosis (RO) plants and water coolers are strategically positioned across buildings and common areas on our campus to support SDG-6 and provide clean drinking water going forward. All visitors, employees, and students use these locations, which offer clean, safe water. This program demonstrates our dedication to community well-being and environmental sustainability. 1. Every day, the university supplies 11000+ people on campus with clean, safe drinking water. 2. To offer safe drinking water, water purifiers are installed in each university building and dorm. We think that by doing this, problems like insufficient water and supplies won't ever arise on campus. 3. Every month, a microbiological examination of the water's potability is conducted.
6.3.4 Water-conscious building standards	By installing extensive water-efficient systems around the campus, Integral University places a high priority on sustainable resource management. Waterless urinals, sensor-based flush systems, dual flush toilets, and low-flow aerators on faucets are all features of our facilities. All tanks are monitored by smart water level controllers, and IoT-enabled dishwashers and washing machines run in shared spaces. To drastically cut down on water use, the campus uses a steam boiler in the kitchen to cook rice and lentils and a solar water pump. Our dedication to environmental stewardship is demonstrated by the fact that more than 90% of campus appliances use less water.
6.3.5 Water-conscious planting	Plant species that require the least amount of water and post-plantation care are selected during landscaping. Succulents, drought-tolerant plants, and hardy plants that can withstand harsh weather conditions and need little water are the best choices for landscaping. For these species to develop, rainwater alone is enough.
6.4.1 Water reuse policy	Integral University has formulated a Policy for water reuse. https://www.iul.ac.in/IQAC/Policy.aspx
6.4.2 Water reuse measurement	For the re-utilization of wastewater, Integral university has established its own Sewage Treatment Plant (STP) within its premises. The STP plant has a capacity of 1.5 MLD (Million Litter Discharge). The University has implemented Rain Water Harvesting (RWH) system which has laid 0.5 km long channels with appropriate gradients for water flow without

	stagnation. Each of the university buildings is equipped with a separate drainage pipe that carries rooftop rainwater which is filtered and stored in sumps for re-utilization. University also has constructed bunds of varying depths at different locations in the campus for water harvesting purposes.
6.5.1 Water management educational opportunities	The university is educating the rural residents of the area about water management, solid waste management, sanitation, and hygiene. These awareness-raising and educational events are being held entirely free of charge by the University's clubs, NSS. The teaching team hosts a number of webinars, seminars, and Faculty Development Programs (FDPs) both domestically and abroad. A large number of these seminars and FDPs are free. These programs frequently have something to do with preventing or controlling pollution. Our Faculty of Agriculture and Sciences offers an academic program that includes traditional rainwater gathering techniques, dryland agricultural methods, water management techniques, and natural resource management.
6.5.3 Off-campus water conservation support	Through creative projects that uplift local people and encourage sustainable habits, Integral University exemplifies its unwavering commitment to off-campus water conservation support, guaranteeing a safe and clean water future for everybody. In addition to meeting immediate water demands, University fosters a culture of environmental stewardship among the younger generation by actively participating in initiatives like the installation of tube wells, tree planting campaigns, and educational workshops. This proactive strategy highlights IU position as a pioneer in sustainable water management and encourages group efforts to protect essential water resources and strengthen local ecosystems' resilience for coming generations.
6.5.4 Sustainable water extraction on campus	To guarantee the best possible use of water, the campus has put in place extensive water extraction and monitoring systems that combine conventional techniques with state-of-the-art technology. To guarantee the highest standards of water purity for the campus community, the extracted water is thoroughly purified using cutting-edge Reverse Osmosis (RO) systems before being made available for consumption. The university has implemented sensor-based water level controllers throughout its water storage infrastructure in an effort to achieve technological excellence in water conservation. These advanced devices successfully stop tank overflow, demonstrating the university's dedication to the "zero waste of water" philosophy. Furthermore, integrating renewable energy into water management activities is made possible by the installation of solar water pumps for extraction. The institution uses an integrated system of treatment and recycling to handle wastewater as part of its commitment to water sustainability. The campus runs a water treatment plant (WTP) and a biological sewage treatment plant (Bio-STP), guaranteeing that treated wastewater is efficiently recycled for the right uses. The school buildings' infrastructure, which features contemporary water-conserving features including flush tanks, dual flush systems, and sensor-based urinals, further demonstrates this dedication to water conservation.
6.5.5 Cooperation on water security	Access to clean drinking water, sanitation, and hygiene are key indicators of water security. Governments at all levels local, regional, national, and international play a crucial role in preserving water security, especially in developing nations. Integral University is committed to educating stakeholders on topics pertaining to water security, such as water conservation, pollution prevention, and the ecological significance of water resources. Water conservation advocates preserving, controlling, and ensuring the development of clean water resources of all types (surface as well as groundwater). It also includes the prevention of pollution that abuses and contaminates water resources. It stresses all the measures, strategies, and policies that promise to fairly manage the natural resources of consumable water. Integral University is extremely conscious of the importance of water conservation and adopts all such measures and strategies that take good care of water usage and prevent the wastage of water in the entire university campus. To meet ever increasing

	demand for water, at present and future, University stays proactive in placing efforts to conserve water resources as far as possible. 1. Rainwater Harvesting (RWH) System 2. Sewage Treatment Plant (STP) 3. Sensor-based Water Tanks 4. Water Recharge Wells 5. Construction of Bunds
6.5.6 Promoting conscious water usage on campus	1. Integral University has in fact put in place a number of thorough and active water-conscious projects. • IoT-enabled washing machines that track and modify water consumption • Dual-flush toilets that let customers choose a flush volume. • Sensor-controlled water systems that stop needless water flow. 2. Methods for Conserving Water • Rainwater harvesting • Wastewater recycling 3. Technological Implementations • Biological Sewage Treatment Plants (Bio-STPs) • Water Treatment Plants (WTPs) • Solar-powered pumps for water systems • Water meters to track consumption 4. Sustainable Landscaping • Plantation of drought-tolerant species
6.5.7 Promoting conscious water usage in the wider community	By interacting with and teaching the general public about the value of water conservation, Integral University is actively encouraging responsible water use outside of its campus. IU seeks to promote responsible water use among locals by increasing understanding of sustainable water management techniques through a range of outreach programs, workshops, and collaborations with neighborhood organizations. Putting together community seminars that offer helpful advice on water-saving methods, like repairing leaks, utilizing water-efficient appliances, and installing rainwater collecting systems, is one of the main tactics. In order to promote a shared commitment to water conservation and highlight the necessity of teamwork in tackling water scarcity challenges, IU works with schools, local governments, and non-governmental organizations. In order to show the community that Integral University is a leader in environmental stewardship, the university also shares its water management research and projects. Through several programs designed to increase knowledge and encourage sustainable behaviors, Integral University encourages the general public to use water responsibly.