



# SDG - 6

**CLEAN WATER  
AND SANITATION**

Ensure availability and sustainable management of water and sanitation for all.

## 6 CLEAN WATER AND SANITATION



Clean drinking water  
Affordable equipment  
and Education in  
hygiene practices

### “ Introduction ”

SDG 6 focusses on ensuring access to drinking water, sanitation, and hygiene, as well as the quality and sustainability of water resources worldwide. Through Pedagogical boundaries, Galgotias University adopts effective water conservation strategies, focusing on minimizing usage and recycling wastewater efficiently. On August 4, 2024, Galgotias University hosted the esteemed Dr. Rajendra Singh, the renowned "Waterman of India." during the "Vikram Sarabhai Space Exhibition.", emphasizing responsibility of Conserving Water and Using Resources Judiciously, our duty to conserve water, avert wastage, and safeguard resources for future generations' survival. Galgotias University's water conservation efforts are a cornerstone of multiple SDGs—ensuring safe water for health, sustainably supporting food and energy, fostering economic growth, preserving ecosystems, and driving climate action. Through these initiatives, Galgotias university is not only conserving resources but also creating a ripple effect towards a more sustainable future. Galgotias University empowers future leaders to champion accessible clean water and sanitation.

### “ Study on Sustainability at Galgotias University ”

#### Programs -

Doctor of Philosophy (Ph.D.) in Environmental Sciences,  
M.Sc. in Sustainability

#### Courses -

Soil and Water Conservation Engineering (A1UA203B),  
Soil, Water and Air Pollution (Soil 508),  
Water Supply Treatment (G1UA302T),  
Environment Impact Analysis (G1UB120T),  
Environment Monitoring Analysis (G1U301T)

### “ Galgotias University Community Initiatives ”

#### Water-Conscious Campus Culture

The university monitors water use through advanced metering systems and leverages data to optimize irrigation and sanitation processes. Educational workshops and campaigns foster awareness among students, faculty, and staff about the importance of conserving water. Native landscaping with drought-tolerant plants minimizes water needs while supporting biodiversity. By integrating these measures, Galgotias University not only minimizes its ecological footprint but also sets a benchmark for responsible water stewardship in educational institutions.

#### Public Engagement in Water and Waste Solutions

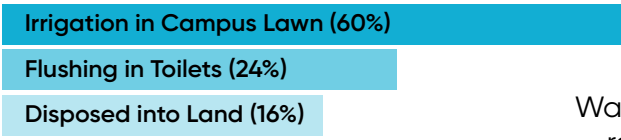
Public engagement is essential for addressing water scarcity and waste management challenges. Galgotias University fosters awareness through community workshops, seminars, and practical demonstrations, emphasizing the importance of conservation and sustainable practices. Participants learn techniques such as rainwater harvesting, proper waste disposal, and reusing treated water for irrigation and sanitation. The university's advanced water treatment systems and virtually leak-proof drainage models serve as educational tools, inspiring actionable change. By promoting collaborative efforts, the program empowers individuals to adopt eco-friendly habits, ensuring the preservation of water resources for future generations and setting a benchmark for sustainable community-driven solutions.

#### Aquatic Ecosystem Damage Prevention

Students & Faculty members of B.Tech Civil Engineering Galgotias University have designed and fabricated a "Pond Cleaning Machine". This project emphasis on design and fabrication of the pond, canal water waste cleaning machine. The work has done looking at the current situation of water wastage or save the water which are dump with multi-millions liters of sewage and loaded with pollutants, toxic materials: like plastics, dead animals, woods, vegetables waste which is decomposed in water and debris etc. The main aim of the project is to reduce the man power, time consumption for cleaning the river.

#### “ Policies aligned with SDG - 6 ”

Policy on Water re-use, Building standards to minimize water use in university



2024	450 KLD
2023	435 KLD
2022	415 KLD

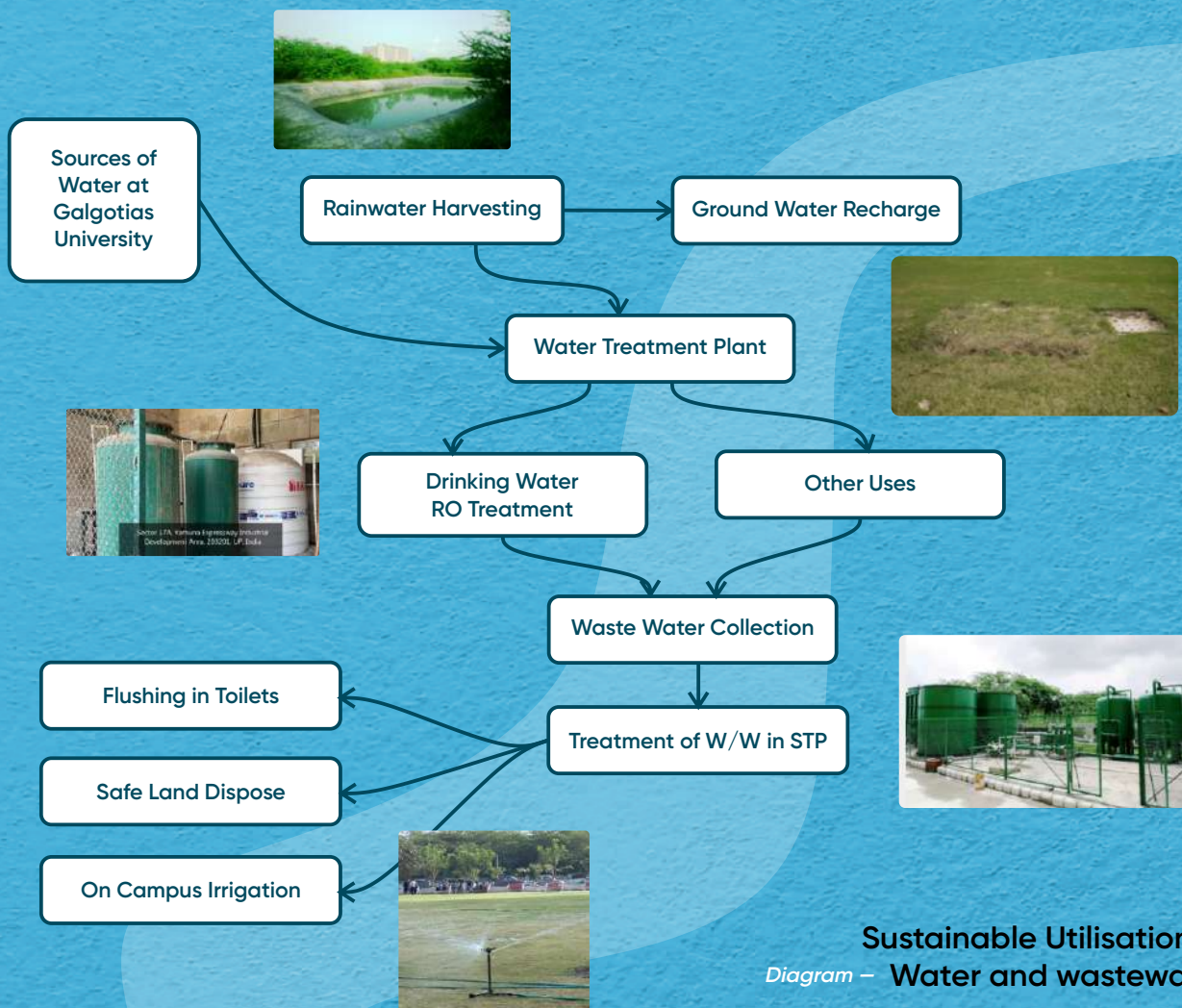
Wastewater treated & reused in campus

### Sustainable Utilisation of Water and wastewater

Our university is committed to sustainable water management practices and has established a comprehensive system to optimize water usage and conservation. A key feature of this system is the state-of-the-art Sewage Treatment Plant (STP) with a capacity of 450 KLD (kiloliters per day). This STP employs advanced biological treatment methods to break down organic matter efficiently and incorporates tertiary treatment technology to ensure the water meets high-quality standards. The treated water is reused extensively for gardening and landscaping purposes, promoting resource efficiency and reducing dependency on freshwater supplies.

To support the provision of safe and clean water, the university offers purified and quality-approved drinking water free of cost to students, staff, and visitors. Our facilities are equipped with modern filtration and quality control systems, ensuring the highest standards of potable water safety.

Rainwater harvesting systems are integrated into the campus infrastructure, capturing and storing rainwater effectively. These systems are designed to channel harvested rainwater to buildings for specific uses, such as flushing and other non-potable purposes, further reducing freshwater consumption. Additionally, the university emphasizes the plantation of drought-tolerant plant species across the campus, including native grasses and succulents, which thrive with minimal water requirements. This approach not only conserves water but also enhances the campus's aesthetic and ecological value.



Sustainable Utilisation of  
Diagram – Water and wastewater



“ Ensure availability and sustainable management of water and sanitation for all.

## Utilisation of Treated water

At Galgotias University, drip and sprinkler irrigation systems effectively utilize treated water, showcasing sustainable water management practices. Treated water from advanced filtration processes is redirected to these systems, ensuring efficient water use in campus landscaping and agricultural activities. Drip irrigation delivers water directly to plant roots, minimizing evaporation and wastage, while sprinkler systems evenly distribute water across large areas. This dual approach conserves freshwater resources, reduces dependency on groundwater, and maintains greenery on campus. By integrating these methods, the university demonstrates its commitment to eco-friendly practices, fostering an environment of sustainability and serving as a model for responsible water reuse.



## AQUAQUEST

Department of Civil Engineering at Galgotias University is proud to host a Model Competition focused on water bodies and their structures. This event is a fantastic opportunity for students to: Showcase their creativity and engineering skills by designing and building models of various water body structures like dams, bridges, canals, or levees. Deepen their understanding of the importance of rivers and the role civil engineers play in their management and preservation.

## EKOIL Ranked 3rd at Youth Talent Recognition

UP International Trade Show : Youth Talent Exhibition 2024, Greater Noida, India

This project introduces an innovative and sustainable way to extract essential oils at home from everyday waste an idea that has the potential to revolutionize the industry. The Distillation kit tackles four key problems: waste, cost, adulterants, and sustainability. The proposed model do not waste water for cooling purpose and the waste materials after distillation can be turned into manure. It simplifies turning waste fruit peels, spices and flowers into high-quality essential oils and hydrosol at home. EKOIL ranked 3rd at youth talent exhibition at up international trade show 2024.

## “ Research with SDG - 6”

- Recent advances on 2D Metal Organic Framework (MOF) membrane for waste water treatment and desalination.
- Biosurfactants: Green Frontiers in Water Remediation.
- Evaluating the Effects of Amorphophallus paeoniifolius Enzyme Extract on Seed Growth Parameters in Selected Crops Exposed to Treated Textile Dyes and Wastewater.
- A top-down spatial scenario approach for identifying the locations of rainwater harvesting sites in an urban region.
- Recent advances on nano-adsorbents and nanomembranes for the remediation of water.



**With a splash for sustainability, Let's protect our water resources**

Galgotias University is dedicated to advancing the UN Sustainable Development Goals (SDGs). Our commitment is reflected in a comprehensive four-pronged approach encompassing teaching, research, core institutional practices, and meaningful partnerships.

**Galgotias University, INDIA**