



# SDG - 14

**LIFE BELOW WATER** Conserve and sustainably use the world's oceans, seas, and marine resources

# 14 LIFE BELOW WATER



**Life Below Water  
Conservation  
Marine Pollution  
Sustainability  
Clean Oceans**

## “ Introduction “

Galgotias University is deeply committed to Sustainable Development Goal 14: Life Below Water, working towards safeguarding our oceans, the planet's vital ecosystems. Through specialized courses in marine biology, aquaculture, and ecosystem dynamics, students gain essential knowledge to address the complexities of marine conservation. Field visits to fish farms and rivers offer practical insights, enhancing their learning experiences. The university's research initiatives focus on solar-powered water purification, bioremediation of wastewater, and studying heavy metal toxicity in aquatic ecosystems, contributing to sustainable water management solutions. Events such as National Pollution Control Day and International Day for Biological Diversity raise awareness and engage students in ocean conservation efforts. Collaborations with organizations like LSSSDC, Ureka Education, and EduSkills strengthen efforts to combat marine degradation. By integrating education, research, and advocacy, Galgotias University plays a vital role in preserving marine life and ensuring a sustainable blue future for generations to come.

## “ Study on Sustainability at Galgotias University “

### Programs -

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

### Courses offered -

BCE01T3503 - Water Supply & Treatment Systems,  
AGRI3018 - Principles of Organic Farming

## “ Galgotias University Community Initiatives “

### Building Sustainable Water Solutions

Galgotias University is dedicated to advancing SDG 14: Life Below Water through sustainable water management and public health initiatives. The university has implemented state-of-the-art drainage and sewage systems that are virtually leak-proof, contributing to cleaner water resources and better ecosystem health. These systems are complemented by training programs for students, staff, and the local community, which focus on water conservation, stormwater management, and waste minimization. The community sessions educate participants on preventing waterborne diseases, understanding sanitation risks, and promoting hygiene practices. Emphasizing responsible water use, the university advocates for treated water for non-potable purposes, reducing strain on natural water bodies. By fostering proactive participation, Galgotias University ensures sustainable practices are deeply rooted within the community, creating a positive impact on water quality and supporting marine conservation efforts as part of the broader goal to protect aquatic ecosystems.

### Rainwater Harvesting for Sustainable Water Management

Galgotias University has implemented a comprehensive rainwater harvesting (RWH) system to support sustainable water management, reduce dependency on freshwater sources, and contribute to environmental sustainability, in alignment with SDG 14. The initiative captures rainwater for non-potable purposes like irrigation, cooling, and toilet flushing, helping conserve freshwater and replenish the local groundwater table. This system includes rooftop and surface collection, filtration units, and storage tanks, ensuring efficient use of captured rainwater. Additionally, recharge pits and permeable surfaces facilitate groundwater recharge, mitigating the risk of depletion. The university's commitment to sustainability is further demonstrated through increased environmental awareness within the campus community, promoting proactive involvement in water conservation practices. This initiative enhances the university's efforts toward responsible resource management, creating long-term benefits for both the campus and surrounding community while supporting the broader goal of preserving water resources for future generations.

### Rainwater Harvesting for Sustainable Water Management

Galgotias University is dedicated to preserving aquatic ecosystems on campus, exemplified by its well-maintained



fish pond. This controlled environment serves as a retention basin stocked with fish, promoting sustainable aquaculture, recreational fishing, and ornamental purposes. The pond is carefully managed to minimize disruption to the natural ecosystem. Regular visits from students and research scholars enable ongoing analysis of the water quality, ensuring the health of the aquatic life and ecosystem. This initiative supports the university's broader commitment to maintaining ecological balance, fostering awareness, and promoting responsible environmental stewardship among its community members.

### Poster Making Competition

*Innovative Solutions for a Sustainable Future*

Galgotias University hosted a Poster Making Competition organized by the IEEE IAS Chapter in collaboration with the Department of Electronics and Communication Engineering (DEECE), focused on the theme "Innovative Solutions for a Sustainable Future." The competition was designed to address global sustainability challenges, with particular attention to preserving aquatic ecosystems and marine resources (SDG 14). The event encouraged participants to explore creative solutions for water conservation, sustainable fisheries, and reducing pollution in aquatic environments. Through their posters, students showcased how technology and innovation can support the protection and restoration of marine life and ecosystems. By engaging students in the challenges of safeguarding oceans, seas, and marine resources, the competition highlighted the importance of sustainable practices in aquatic management. The event fostered awareness of SDG 14 and motivated participants to think critically about the role of technology in protecting our valuable marine ecosystems for future generations.

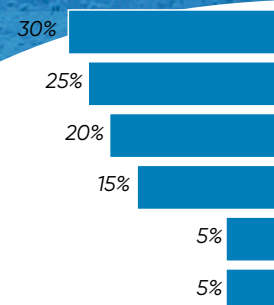
### Wastewater Treatment Plant

*Student visit to WTP*

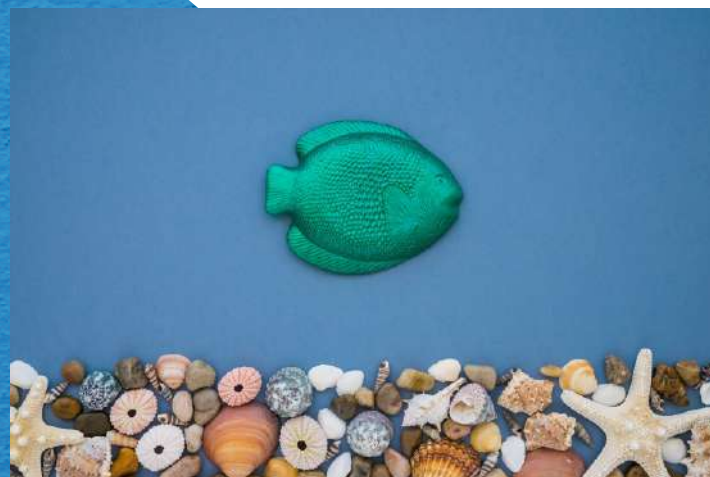
Galgotias University organized an educational visit to a state-of-the-art wastewater treatment plant, aligning with SDG 14: Life Below Water. Students explored advanced treatment technologies like Moving Bed Bioreactor (MBBR), activated carbon filters, and multi-grade filters. The plant's focus on sustainable water management includes recycling treated water for irrigation and non-potable uses, reducing freshwater dependence. The visit highlighted the significance of wastewater treatment in preventing pollution and safeguarding aquatic ecosystems by ensuring minimal environmental impact. Students gained valuable insights into how technology supports the conservation of marine life and water resources.

### Policy Distribution for Aquatic Ecosystem Conservation

(% of Total Efforts)



1. Research Policies (River/Lake/Pond Studies): 30%
2. Course Curriculum Integration: 25%
3. Wastewater and Runoff Management Policies: 20%
4. Plastic and Waste Reduction Policies: 15%
5. Freshwater Habitat Restoration Policies: 5%
6. Community Engagement and Awareness Policies: 5%



Galgotias University remains committed to promoting sustainable practices, ensuring the protection of aquatic ecosystems, and fostering awareness to create a cleaner, healthier environment, contributing actively to the achievement of SDG 14.