SDG 14: Life Below Water

UN Sustainable Development Goal Target: Conserve and sustainably use the oceans, seas and marine resources for sustainable development.

EXECUTIVE SUMMARY - SDG 14: LIFE BELOW WATER
Heliopolis University (HU) actively advances SDG 14: Life Below Water through an integrated model of higher education, scientific research, community development, and operational practice.

1. Key Institutional Achievements & Initiatives (2025)

- **Microbiology & Marine Water Quality:** Research in water monitoring preventing agricultural runoff and pollutant discharge into waterways.
- **Hydroponic & Aquaponic Closed Systems:** Integrated recirculating aquaculture systems producing tilapia fish while purifying water for plant growth.
- **Pesticide & Chemical Elimination:** Organic certification across 3,738 farms eliminating toxic agro-chemical runoff into Egyptian Nile and Delta marine ecosystems.
- **WATDEV Watershed Protection:** Field-based soil and crop management practices protecting local water bodies from agricultural degradation.
- **Low-Cost Wastewater Treatment Research:** Developing nature-based biological filter solutions to preserve freshwater ecosystems.

2. Key Performance Metrics & Data Summary

Performance Metric / Indicator	2025 Reported Value
Campus Wastewater Discharge to Water Bodies	**0% (100% Recycled)**
Organic Farms Reducing Chemical Runoff	**3,738 Farms**
Closed Aquaponic Systems on Campus	**Active System**

3. Contributing University Faculties, Centers & Ecosystem Partners

- Water Research Laboratory
- Faculty of Engineering
- Center of Organic Agriculture in Egypt (COAE)