SDG 6



Indicator 6.4.1

Water Reuse Policy

Policy	The university is committed to preserving water resources by promoting consumption efficiency and maximizing the use of all available water sources on campus. The policy includes upgrading water infrastructure, replacing traditional fixtures with water-saving technologies, and using low-water-demand plants. Additionally, desalination units are installed in key facilities. Wastewater is treated and reused for irrigation, along with water collected from air conditioning systems and rain. The university also prioritizes awareness through signage and educational seminars held both on and off campus. **Policy created:** 2012 **Policy reviewed:** 2024 https://www.miuegypt.edu.eg/policies/policies-summary/#policy24
	The university has implemented specific infrastructure to capture, treat, and reuse water that would otherwise be discarded.

Water Reuse Infrastructure & Initiatives	**1. On-Site Wastewater Treatment and Reuse** The backbone of the reuse strategy is the university's ability to treat its own sewage effectively. • **Treatment Capacity:** The university operates a dedicated Sewage Treatment Plant (STP) with a daily capacity of **225 m^3**. • **Application:** 100% of the wastewater generated is directed to this network. After treatment, this recycled water is repurposed to irrigate approximately **12,000 m^2** of green spaces on campus, replacing the need for fresh water in landscaping. **2. Air Conditioning Condensate Recovery** To maximize reuse from non-traditional sources, the university captures water generated by HVAC systems. • **Volume Recovered:** An estimated **12 m^3 of water per day** is recovered from the drainage of air conditioning units (based on an 8-hour operating cycle). • **Reuse Path:** Instead of being lost to evaporation or external drainage, this condensate is routed into the university's sewage network so that it can be treated and subsequently used for irrigation. **3. Firefighting Water Recycling:** The university has adopted an innovative protocol for maintaining its firefighting reservoirs. • **Process:** The firefighting network (fed by a 150 m^3 tank) requires water renewal twice annually. Rather than discharging this large volume into the sewer system as waste, the policy mandates that this water be discharged directly into the **irrigation tanks** for immediate reuse in landscaping. **4. Rainwater Harvesting** Infrastructure is in place to capture precipitation. • **Storage:** Rainwater is collected in ground pits with a capacity of **100 m^3**.

	• **Utilization:** Pumps transfer this harvested water into the irrigation network, further reducing the draw on freshwater aquifers.
Conservation Measures Supporting Reuse	While maximizing reuse, the university also reduces overall demand to ensure the reused water is sufficient for campus needs. • **Artificial Turf:** The substitution of natural grass with artificial turf in specific areas has reduced daily irrigation requirements from **269.5 m^3 to 227 m^3**. • **Xeriscaping:** The landscaping strategy prioritizes drought-resistant plants (cacti and succulents) to align water demand with the available supply of treated wastewater.