SDG 6



Indicator 6.3.4

Water-Conscious Building Standards

The university demonstrates a holistic approach to water conservation. By combining high-efficiency construction materials (pre-fabricated elements), water recycling infrastructure (sewage and AC condensate reuse), and smart retrofitting (infrared sensors), the institution successfully minimizes water waste while maintaining its operational needs.

Construction and Material Standards	To address the "excessive use of water in construction works," the university has adopted specific building standards to minimize water waste during the development phase: • **Ready-Mix Concrete:** The university prioritizes the use of ready-mix concrete instead of mixing concrete on-site, which reduces uncontrolled water usage. • **Prefabricated Materials:** There is a strategic shift away from water-intensive traditional masonry and internal/external plastering. These are being replaced by pre-fabricated partitions and cladding (both internal and external) at a rate exceeding **75%**.

Water Recycling and Reuse Standards	The university has established comprehensive infrastructure to recycle water for irrigation, significantly reducing the demand for freshwater supplies for landscaping. • **Sewage Water Treatment:** The university diverts all sewage water through its own network to a specialized treatment plant. This plant operates with a capacity of **225 m³ per day**, converting sewage into treated water suitable for irrigation. This recycled water maintains approximately **12,000 m²** of green spaces within the campus. • **Air Conditioning Condensate Recovery:** The university capitalizes on water generated by air conditioning systems. Approximately **12 m³ of water is recovered daily** (based on 8 operational hours, excluding central AC output) and directed into the sewage network to be repurposed for irrigation. • **Rainwater Harvesting:** A complete rainwater drainage network has been installed to collect water from building roofs and grounds. This water is gathered in wells and a new collection station with a **100 m³ capacity**, after which it is pumped into the irrigation network.
Renovation and Technology Integration	The university is actively retrofitting existing facilities to ensure water efficiency at the point of use: • **Infrared Sensor Technology:** As part of a comprehensive bathroom development plan, traditional water outlets are being replaced with infrared sensor-operated faucets to strictly control and minimize the quantity of water used in sinks.
Potable Water Management	The university maintains strict standards for drinking water quality and efficiency: • **Desalination Units:** Two desalination stations utilizing ion-separation technology have been installed at the Clinics Complex, with a total capacity of **3 m³/hour per station**. • **Reverse Osmosis (RO) Systems:** All office water outlets across university buildings are equipped with separate Reverse Osmosis (RO) units to provide

safe drinking water. These units are maintained periodically by specialized companies.