SDG 6



Indicator 6.3.1

Wastewater Treatment

Misr International University (MIU) acts as a responsible body regarding waste management. By maintaining a treatment plant with a 225 m^3 daily capacity and successfully recycling over 75,000 m^3 of water annually for irrigation, the university has a proven, effective process in place for treating and reusing wastewater.

Treatment Infrastructure and Capacity	The university has established a robust infrastructure to handle campus-wide sanitation needs. • **Collection Network:** The university operates a centralized sewage network that collects all wastewater generated across the campus. • **Treatment Facility:** All collected wastewater is transferred to an on-site sewage treatment plant. • **Operational Capacity:** The plant is designed to operate with a treatment capacity of **225 m^3 per day**.

<table>
<tr>
<td>Treatment Process and Utilization</td>
<td>The core objective of the university's treatment process is the conversion of waste into a reusable resource, minimizing the environmental footprint.
• The Process: Wastewater undergoes treatment within the plant to meet safety standards for non-potable use.
• End-Use Application: The treated water is strictly utilized for the irrigation of the university’s green spaces, reducing the demand for freshwater reserves.</td>
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<tr>
<td>Quantitative Analysis & Water Usage Statistics</td>
<td>Data collected regarding the plant's output and campus irrigation needs demonstrates a high level of dependency on recycled water.
• Daily Output Analysis
On normal working days, the treated sewage output is calculated based on a 90% recovery rate from the input.
<table>
<tr><th>Metric</th><th>Value</th><th>Note</th></tr>
<tr><td>Daily Treated Output</td><td>207 m³</td><td>Calculated as 90% of 230 m³ input</td></tr>
</table>
• Contribution to Irrigation
The treated wastewater forms most of the water volume used for maintaining campus vegetation.
• Total Annual Irrigation Usage: 98,098 m³
• Annual Treated Wastewater Contribution: 75,348 m³
• Daily Total Irrigation Usage: 269.5 m³
This data confirms that most of the university's annual irrigation needs are met through its internal wastewater treatment process.</td>
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<tr>
<td>Integration of Air Conditioning Drainage</td>
<td>The university has implemented a secondary water capture process involving the air conditioning (AC) systems.
• Methodology: Water generated from AC drainage is not discarded; it is diverted into the university’s sewage network to be processed and reused.</td>
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- **Volume Recovered:** Approximately **12 m³ per day**.
- **Operational Basis:** This figure is based on the operation of total AC units for an average of 8 hours per day (excluding central air conditioning), considering permitted operating periods.