

# **SUSTAINABLE DEVELOPMENT GOALS**

## **6. CLEAN WATER AND SANITATION**



### **6.4 Water reuse**

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## 6.4 Water reuse

### 6.4.1 Water reuse policy

#### Introduction

Chennai Institute of Technology (CIT) is committed to a robust water harvesting and reuse policy, implementing innovative strategies to maximize the benefits of water saving and recycling.

The policy is designed to ensure that campus water resources are managed efficiently and sustainably. By promoting judicious use and maximizing water reuse, the policy aims to minimize the strain on local water sources. Through the implementation of innovative water-saving, rain water harvesting, waste water recycling systems, and comprehensive community engagement initiatives, the policy fosters a culture of conservation. By reducing the water footprint and promoting responsible water management practices inside the campus, CIT aim to set an example of environmental stewardship and sustainability.

#### Objectives:

1. To promote water conservation on campus by organizing workshops, seminars, and awareness campaigns that educate students, faculty, and staff about the importance of reusing and saving water.
2. To evaluate and enhance water management strategies.
3. To implement water-saving technologies and practices across campus facilities, ensuring efficient water usage and reducing overall consumption.
4. To collaborate with local organizations in sharing effective water reuse practices and resources to promote sustainable water management.

#### Purpose

The policy aims to ensure that water is used efficiently and reused to the maximum extent possible, reducing the strain on campus water sources. It promotes the adoption of water-saving technologies and practices across all campus facilities, encouraging responsible

water usage among students, faculties, and staffs. By implementing systems for the collection, treatment, and reuse of grey and rainwater, the policy seeks to make significant strides in water conservation.

### **Policy content**

The establishment of a state-of-the-art sewage wastewater treatment facility at CIT marks a significant advancement in environmental sustainability. Every day, the campus generates wastewater from various sources, including hostels and dining facilities. This wastewater is systematically collected through a robust underground sewer network and transported to the sewage treatment and recycling plant, ensuring efficient management and recycling of water resource. The plant processes sewage to produce reusable water which is then utilized for irrigation and other non-potable purposes, significantly reducing the campus's reliance on freshwater resources.

Dedicated research centers are focused on developing advanced technologies to minimize the ecological footprint of waste management, particularly through improved wastewater treatment and efficient composting of solid biological waste, thus reducing water wastage.

Ensuring an uninterrupted supply of water for drinking and other purposes prevents residents from storing water improperly in anticipation of shortages. This consistent supply helps minimize wastage by eliminating the need for excessive storage and reducing the likelihood of spills or overuse. Additionally, the provision of water-efficient fixtures and regular maintenance ensures that drinking water is used responsibly and wastage is kept to a minimum. Utilizing multiple water sources such as bore wells, rainwater, and recycled water reduces dependence on any single source, promoting sustainability and resilience. This diversified approach minimizes water wastage by balancing the usage among various sources and preventing the over-extraction of any one source.

Promoting rainwater harvesting across the college campus, including academic and hostel blocks, aids in groundwater recharging and minimizes water wastage by capturing and utilizing rainwater efficiently. The policy ensures that water is used efficiently and replenished naturally, further reducing water wastage. Additionally, continuous monitoring

and management of these sources allow for timely detection and repair of leaks, preventing unnecessary water loss.

Cleaning dishwashers in the canteen and mess in batches conserves water, ensuring it is used judiciously and minimizing wastage by reducing the frequency and total volume of water required for cleaning. By carefully managing laundry services for students and staff, and recycling and reusing wastewater from laundry facilities, water consumption is reduced and wastage is effectively minimized.

Through educational sessions and visual reminders, students are guided to practice mindful water usage and to turn off taps during non-use periods, which helps significantly reduce water wastage.

Implementing sensor-based automation for water tanks with continuous monitoring of water levels and automatic pump control prevents overflow and minimizes water wastage.

Conducting regular tests of water from the effluent treatment plant (ETP) ensures its quality and safety, allowing for the efficient reuse of treated water and minimizing wastage by preventing improper discharge.

### **Policy History**

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|--------------------|------------|
| Policy created on  | 25-02-2021 |
| Policy reviewed on | 23-03-2022 |

## 6.4.2 Water reuse measurement

Academic year : 2022-23

Waste water collected from hostels and mess : 271,748 lt / day

Sewage treatment tank capacity : 2,75,000 lt/day

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