SUSTAINABLE DEVELOPMENT GOALS

6 CLEAN WATER AND SANITATION

28,788
Campus Populations

207,274 m3
Volume of Water Used

Stewardship

Comprehensive Water and Sanitation Management Policy

ITS demonstrates a strong commitment to sustainable water and sanitation management, guided by Rector's Circular Letter on Green and Sustainable Campus Development. The policy regulates water efficiency, wastewater treatment, and pollution prevention across all university facilities. ITS systematically measures total water consumption through the PDAM Surya Sembada supply system, enabling continuous monitoring and improvement of water use efficiency.

To ensure responsible water usage and care, ITS ensures responsible water use through an on campus wastewater treatment plant that processes domestic and laboratory wastewater, reusing up to 30% for irrigation and toilet flushing. Comprehensive SOPs for liquid and hazardous waste management cover maintenance, emergency response, and monitoring to prevent water pollution. Free drinking water points and water efficient building standards, such as rainwater harvesting, greywater reuse, and sustainable landscaping further promote campus wide water stewardship.

Teaching

Strengthening Water and Sanitation Education through Laboratory Based Learning

ITS integrates the principles of clean water and sanitation into its academic curriculum across various departments. The Environmental Quality Management Laboratory under the Department of Environmental Engineering focuses on the management and engineering of clean water, wastewater, rainwater, air, and emissions. Through practical experiments, students learn to analyze water quality, design water treatment systems, and develop sustainable environmental solutions.

Meanwhile, the Water Resources and Coastal Engineering Laboratory under the Department of Civil Engineering enhances

teaching and research in river engineering, irrigation, drainage, groundwater, water resource management, hydraulic engineering, and hydrology. These laboratory activities equip students with technical and analytical skills to manage and conserve water resources effectively, aligning with ITS' commitment to sustainable water management.

Guest Lecture on Water Treatment Technology Enhances Students' Technical Insight

The Department of Chemical Engineering conducted a guest lecture presented by Mr. Hery Wibowo from PT Ecolab International Indonesia, entitled "Basic Concepts of Water Treatment Technology Based on Its Application." Attended by 60 students, the lecture explored the importance of water, types of water impurities, and appropriate water treatment processes. This session strengthened students' understanding of clean water management and the technological innovations essential for ensuring access to safe and sustainable water resources.

Research

Advancing Sustainable Water Management through Research and Technological Innovation

The Directorate of Research and Community Service at ITS encourages lecturers and students to conduct research on clean water and sanitation.

One example is the. dissemination of the Kurita Overseas Research Grant 2024, which supports young researchers and doctoral students in advancing Water-Related Environmental Science and Technology, including wastewater treatment, sustainable sanitation, and aquatic ecosystem management.

In 2024, ITS researchers also contributed through various studies, including those conducted by the Laboratory of Water and Coastal Resources Engineering on rainwater harvesting, 3D city flood modeling, water allocation optimization, and watershed management, driving innovation in sustainable water and disaster management.

Outreach

Empowering Local Communities through Water Management Training

ITS provides free educational opportunities for local communities to learn about effective water management. The Community Service team from the Environmental Remediation Laboratory conducted education and training on wastewater management for coastal residents of Kutorejo Village, Tuban Regency, on September 4, 2024. The program aimed to prevent wastewater from being discharged directly into the sea and degrading environmental quality. The community was introduced to proper wastewater management practices through the use of wastewater treatment plants.