



6 CLEAN WATER AND SANITATION

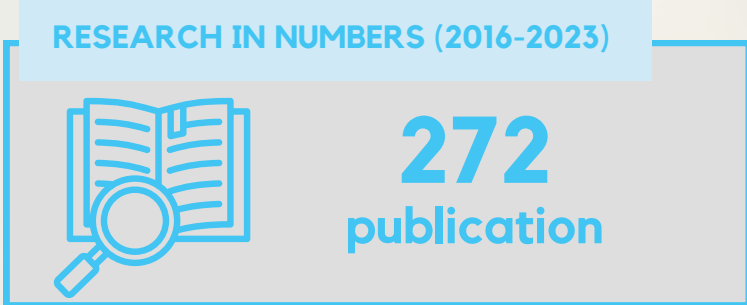
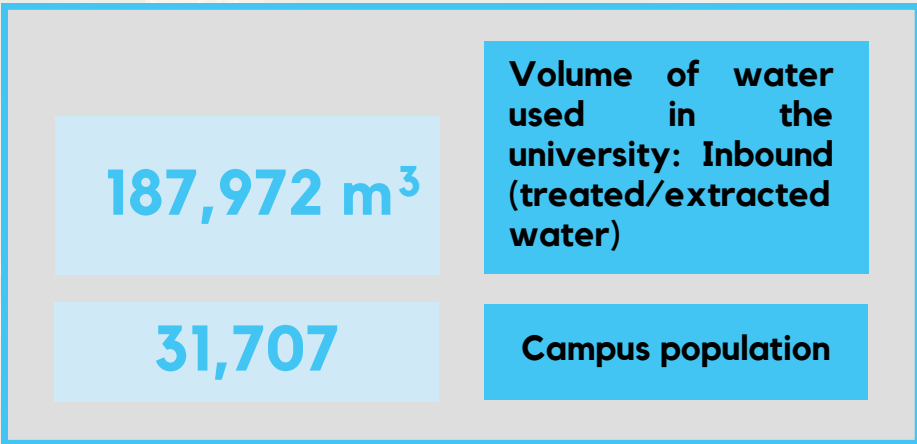


6 CLEAN WATER AND SANITATION



“Without water we can’t live. Water supports out agriculture and aquaculture. Clean water is vital. However, due to bad economics or poor infrastructure, millions of people including children die every year from diseases associated with inadequate water supply, sanitation and hygiene.”

-THE Impact Rankings



6 CLEAN WATER AND SANITATION



ENSURE AVAILABILITY AND SUSTAINABLE MANAGEMENT OF WATER AND SANITATION FOR ALL

1 | Clean Wells in Karanganyar and Wonogiri Regencies

The Zakat Collection Unit of Universitas Sebelas Maret (UPZ UNS) launched the "Sumur Bersih" translated as "Clean Well" development program. This program began in 2020 in **areas struggling to access clean water** and continues to this day.

One of the projects took place at the Ulil Albab Islamic Boarding School in Gondangrejo, Karanganyar, starting on March 1, 2023, and completing with a handover ceremony on May 26, 2023. The 83-meter-deep well now **serves 125 beneficiaries**, including students and staff of the boarding school.



In July 2023, UPZ UNS built another Sumur Bersih in Dusun Sumber, Sendang Village, Purwantoro Subdistrict, Wonogiri Regency. The well was officially inaugurated on Wednesday, October 25, 2023, and named "Tirto Mulyo." As the name suggests, "Tirto Mulyo" conveys the hope that the community can utilize the "tirto" or water from the well for collective benefit, leading to "mulyo," meaning prosperity and well-being. This 80-meter-deep well **meets the needs of nearly 50 households** in the village.



6 CLEAN WATER AND SANITATION



ENSURE AVAILABILITY AND SUSTAINABLE MANAGEMENT OF WATER AND SANITATION FOR ALL

2 | Water Purification of UNS Lake with Eco-Enzyme

Universitas Sebelas Maret commemorated World Environment Day by pouring 1,000 liters of **eco-enzyme** into UNS Lake to help purify its water. The solution was produced by faculty members and students from the Faculty of Mathematics and Natural Sciences (FMIPA) UNS using **fermented vegetable and fruit waste**. This initiative aims to **make the lake's water usable** for watering plants, **reducing reliance on groundwater** and **supporting long-term sustainability**.



3 | Gravity-Based Water Supply for Drought Solutions

A gravity-based water supply system was implemented in the Forest Farmer Group Wonosewu farming area of Mojogedang **to address drought issues**. Organized by a community service team from the Soil Science Study Program at Universitas Sebelas Maret, the initiative aims **to create a water reserve for tenant farmers** in the Special Purpose Educational Forest Area of Mount Bromo Karanganyar. Excavation, pipe installation, and water tank setup were completed on August 7, 2023. The program focuses on supporting avocado plant development and **providing emergency water reserves**, particularly during the dry season.

6 CLEAN WATER AND SANITATION



ENSURE AVAILABILITY AND SUSTAINABLE MANAGEMENT OF WATER AND SANITATION FOR ALL

4 | Water Purification of UNS Lake with Eco-Enzyme

In 2023 Universitas Sebelas Maret have conserved >50% water. Conservation programs at UNS include: **The construction of UNS Lake**, spanning 1,206 ha with a volume of 7,959 m³ and connected to the Bengawan Solo River, features several water conservation initiatives. These include **117 shallow infiltration wells**, a **rainwater collection pool**, over **630 biopori holes**, and **paving blocks** for rainwater retention. A 90.90 ha **campus forest** has been established, planting 8,664 trees of 429 species, along with a 0.45 ha arboretum of rare and fruit-bearing plants.

These efforts **have improved infiltration** by 48.88%, **reduced surface water flow**, and **enhanced the microclimate**.



Lake UNS	1.206 ha	Campus forest	90,90 Ha
Shallow infiltration wells	117 units	Trees planted	8.664 trees
Biopori hole	630 holes	Arboretum area	0,45 Ha

5 | Encouraging the Community to Create Biopores

Universitaas Sebelas Maret continues to **promote environmental sustainability** by engaging the community in creating biopores at various locations in the Jebres Subdistrict on June 5, 2023, in celebration of World Environment Day. These locations included schools, public spaces, and the UNS Faculty of Teacher Training and Education (FKIP). This activity **involved active participation from the local community**, who supported and assisted in creating and maintaining the biopores. The initiative helps to **improve water absorption**, environmental aesthetics, and public health, while also **raising awareness about the importance of environmental care**.

