UNIVERSITY OF OUM EL BOUAGHI

Report on the United Nations Sustainable Development Goal 6: Clean Water and Sanitation

ABSTRACT

This report highlights the University of Oum El Bouaghi's dedication to achieving Sustainable Development Goal 6 and its ongoing efforts to enhance the quality of clean water and sanitation.

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1. Introduction

This report highlights the University of Oum El Bouaghi's ongoing commitment to achieving **Sustainable Development Goal 6 (SDG 6): Clean Water and Sanitation**. It presents comprehensive information on the university's policies, measures, and partnerships aimed at promoting water conservation, efficient management, wastewater treatment, and community awareness. The university aligns its efforts with Algeria's **Law No. 05-12 of August 4, 2005**, and other relevant national decrees regulating sustainable water management.

2. Water Consumption

6.2.1 Measurement of Total Water Usage

The source workbook, **SDG6 Water Data Final.xlsx** (**https://www.univ-oeb.dz/SDG/sdg6-water-data-final/**), lists readings for selected months in 2024. The sum of listed January–December 2024 values is 55,068.75 m³. The source total of 55,415.25 m³ includes 346.50 m³ dated December 2023; months without a recorded water value are not treated as zero.

- **Total Volume Used:** 55,068.75 cubic meters (sum of listed 2024 entries)
- **Campus Population:** 20,150 (reported normal-day campus population, including visitors)

6.2.2 Reports on Water Usage

The university regularly issues:

- A general report on total campus water consumption.
- Specific reports detailing usage by pedagogical complexes.

Available 2024 complex-level entries sum to 50,797.89 m³, which is 4,270.86 m³ below the university-wide 2024-only total of 55,068.75 m³. The complex 3 monthly entries sum to 44,151.03 m³, while its source total shows 44,150.03 m³. These differences remain unreconciled; confirm meter coverage and reporting periods before treating the complex totals as complete.

3. Water Usage and Conservation

6.3.1 Contribution to Water and Sewage Treatment

The **University of Oum El Bouaghi** actively contributes to the management and treatment of water and sewage systems, in line with **Algeria's national water policy** and **Law No. 05-12 (2005)**, which obliges institutions to safeguard public health and protect aquatic environments.

All university facilities are connected to the public sanitation network managed by the **National Sanitation Office (ONA)** and the **Directorate of Water Resources**. Through these partnerships, the university participates in regular maintenance,

inspection, and monitoring programs to ensure that wastewater from laboratories, administrative units, cafeterias, and residences is safely collected and treated.

The university's **environmental unit** also organizes awareness campaigns, technical audits, and research projects in collaboration with the **Faculty of Natural and Life Sciences** and the **Faculty of Technology**. These efforts encourage innovation in **greywater reuse** and **wastewater treatment**. Moreover, all new construction projects on campus integrate eco-design principles, green technologies, and leakage-prevention systems.

Through these initiatives, the university demonstrates strong alignment with **SDG 6** and national objectives for environmental sustainability.

6.3.2 Prevention of Water Contamination

Oum El Bouaghi University enforces strict measures to prevent any contamination of its water supply. The university's internal water network is **completely independent** from other networks, ensuring that clean water does not interact with sewage systems or external sources of pollution.

The earlier SDG 6 report records eight water tanks; the current GreenMetric Water Conservation form lists four reservoirs with approximately 1,200 m^3 capacity. Following the instruction to use the highest reported number, this report uses eight tanks as the working count and retains the capacity exactly as reported in the GreenMetric form.

6.3.3 Provision of Free Drinking Water

Free access to safe drinking water is guaranteed for all students, staff, and visitors. The **Water Analysis Laboratory of Oum El Bouaghi Province** confirms the quality and safety of tap water provided on campus.

Additionally, the university distributes **bottled mineral water** for students during meals and for faculty members during administrative and academic meetings, ensuring health and comfort for the entire campus community.

6.3.4 Implementation of Water-Efficient Construction Standards

The university applies strict **construction standards** to minimize water consumption. These include:

- **Pipe insulation** to reduce heat and water loss.
- **Shut-off valves** in every building to prevent waste during incidents.
- **Compliance with international flow standards** to ensure efficiency without excessive consumption.

These measures reflect the institution's proactive approach to integrating sustainability into its physical infrastructure.

6.3.5 Water-Saving Landscaping and Tree Planting

The university prioritizes **water-efficient landscaping** through the cultivation of **drought-tolerant trees** such as pines and palms, which remain green throughout the year with minimal irrigation needs.

In addition, the **drip irrigation system** used across campus optimizes water distribution and supports sustainable greenery, thereby reducing total water consumption while maintaining the campus's natural beauty.

4. Water Reuse

6.4.1 Water Recycling Policy

The university policy text dates the Water Reuse Policy to 2010 and records a review in 2025. The current GreenMetric WR.3 form classifies the recycling program as "Program in Preparation." The reviewed evidence does not establish an operating on-campus wastewater treatment or water-reuse system.

Policy Objectives:

- Improve water efficiency across the university.
- Promote water reuse for multiple applications.
- Reduce pollution and enhance water quality.
- Foster a culture of water sustainability among staff and students.

Key Measures:

- Planning and design of water-recycling systems for future non-potable use.
- Assessment of suitable purification and reuse technologies for a future implementation phase.
- Conducting awareness campaigns and technical training.
- Monitoring monthly water consumption to evaluate progress.

The university complies with **Algerian national legislation**, including **Law No. 05-12 (2005)** and several **executive decrees (2007–2011)** that govern treated water reuse, groundwater extraction, and irrigation licensing.

For legal reference: Ministry of Hydraulics – Water Laws

6.4.2 Measurement of Water Recycling

The utility workbook estimates 5,646.5145 m^3 of reused water for 2024 by applying 9–11% multipliers to recorded water volumes; this is a formula-based estimate, not a direct meter reading. The GreenMetric WR.2 form separately reports 5,738.55 m^3 against a 61,226 m^3 baseline. These figures do not reconcile. WR.3 lists the program as "Program in Preparation," and WR.5 reports 0% treated-water consumption. Confirm the calculation method and operating status before presenting a measured reuse total.

5. Community Involvement

6.5.1 Educational Opportunities on Water Management

Oum El Bouaghi University offers specialized programs that empower local communities with water management expertise.

- **Bachelor's Degree in Hydraulics** provides technical knowledge on water systems and resource management.
- **Master's Degree in Urban Hydraulics** focuses on sustainable urban water infrastructure and drainage systems.

These programs prepare graduates to address regional and national water challenges while promoting responsible water use. Learn more

6.5.3 Support for Off-Campus Water Conservation

The university extends its environmental commitment beyond the campus through **field trips** (e.g., to the Ourkis Dam) and participation in **local councils** focused on water management and sustainable conservation practices.

6.5.4 Sustainable Water Extraction Techniques

The university employs **sustainable groundwater extraction** methods within and beyond its campus, in compliance with national regulations, including **Executive Decrees No. 10-25, 10-317, 10-318, and 11-219**.

It has also **drilled a groundwater well** on campus using environmentally safe techniques that ensure water sustainability and ecosystem protection.

Reference: Ministry of Water Resources – Legal Framework

6.5.5 Collaboration on Water Security

In 2022, Oum El Bouaghi University signed partnership agreements with:

- The **National Institute of Irrigation and Drainage (INSID)** – Regional Laboratory for Oum El Bouaghi Province.
- The **National Laboratory for Population and Construction**.

These partnerships aim to strengthen research, training, and innovation in water security, irrigation efficiency, and sustainable management at regional and national levels.

6.5.6 Promotion of Conscious Water Usage on Campus

The university regularly organizes **awareness days and training sessions** to promote responsible water use among students, staff, and visitors. These initiatives foster a culture of sustainability and encourage behavioral change toward water conservation.

6.5.7 Promotion of Conscious Water Usage in the Wider Community

Beyond the campus, the university engages in **national competitions and innovation programs** that promote responsible water management, such as:

- The **National Competition for the Best Scientific Research Project in the Field of Water** under the theme *"Scientific Research in the Service of Water."*
- The **Innovation Challenge in Algerian Universities**, emphasizing sustainable water practices.

6. Conclusion

Through its comprehensive initiatives—ranging from infrastructure development and water reuse policies to partnerships and community outreach—the **University of Oum El Bouaghi** demonstrates an enduring commitment to achieving **SDG 6: Clean Water and Sanitation**.

By aligning with **national water laws** and **international sustainability standards**, the university stands as a model institution in Algeria, contributing to water security, efficient resource management, and environmental protection for present and future generations.