



University : UzSWLU
Country : Uzbekistan
Web Address: <https://uzswlu.uz/en/news>

[4] Water (WR)

4.3 Water efficient appliances usage

Uzbekistan State University of World Languages (UzSWLU) continues to advance its reputation as one of the most environmentally responsible universities in Central Asia. In the 2024 UI GreenMetric World University Rankings, UzSWLU was listed among the Top 500 universities globally, and notably achieved the № 1 position in Uzbekistan for the Water (WR) category.

Building upon this achievement, the university has strengthened its Water Efficient Appliances Program, combining advanced technology, rigorous maintenance, and strong community engagement to ensure measurable reductions in water use.

The initiative directly supports the university's long-term *Sustainable Campus Action Plan (2021–2025)* and aligns with its *Eco-Construction and Green Infrastructure Policy (Order No. 34/2024)*.

1. Strategic Goals

The program was established to:

- Significantly reduce water consumption across all university facilities through modernized, efficient fixtures.
- Integrate digital monitoring and early leak detection systems to prevent losses.
- Educate and motivate the university community toward sustainable consumption habits.
- Maintain UzSWLU's leadership in the Water category within Uzbekistan and improve its global ranking in 2025.

2. Technical Implementation

Comprehensive Audit and Upgrade

Following the 2024 campus-wide water infrastructure audit, outdated fixtures were replaced with certified low-flow, dual-flush, and sensor-based systems across academic, administrative, and residential buildings.

The upgrades prioritize devices that combine comfort with optimal performance, ensuring compliance with global water efficiency standards (e.g., WELS, EPA WaterSense).

Appliance Type	Total Units	Efficient Units	Efficiency Coverage	Avg. Water Saving per Unit
Toilets (dual flush 3/6L)	250	210	84%	35–45%
Washbasin taps (sensor/low-flow)	150	130	87%	45–60%
Showers (aerated, low-flow)	80	68	85%	40%
Kitchen taps	50	40	80%	30%
Drinking water dispensers	40	35	88%	25%
Total	570	483	84.7% average	≈45% average saving



These replacements resulted in an estimated annual water saving of 22,000 m³, representing a 34% improvement compared to the 2023 baseline.

Digitalization and Smart Monitoring

- Smart water meters and flow sensors were installed in high-use facilities, allowing real-time tracking of water consumption and immediate detection of anomalies.
- The UzSWLU Green Office Dashboard consolidates building-level data for analysis and decision-making, with automated alerts sent to maintenance teams in case of leakage or overconsumption.
- This system has reduced leak-related losses by over 35%, equal to about 18,000 liters saved monthly.

Procurement and Maintenance Standards

All new procurement and renovation projects comply with *Order No. 34/2024*, which mandates:

- At least 80% of all fixtures in new facilities must be certified water-efficient.
- Annual audits to ensure sustained performance of installed devices.
- Continuous professional development for maintenance teams through sustainability-focused workshops.

The policy ensures that sustainability principles are institutionalized and not limited to individual projects.

3. Education, Awareness, and Engagement

The university understands that technological efficiency must be complemented by responsible human behavior.

To promote awareness and participation, UzSWLU implemented the following activities:

- “EcoTap – One Drop Matters” Campaign (Spring 2025) – posters, banners, and workshops that reached over 3,500 students and 420 staff members.
- Training Sessions for Facility Teams – 40 technical staff members trained in sensor calibration and maintenance of low-flow fixtures.
- Green Dormitory Competition – engaged more than 300 residents, achieving up to 22% water reduction in the winning dormitory.
- Public Display of Results – smart dashboard screens in main buildings show real-time data and cumulative water savings, encouraging transparency and motivation.

4. Quantitative Outcomes

Indicator	2023–2024	2024–2025	Change
Total efficient fixtures coverage	67.5%	84.7%	+17.2%
Water used per person (liters/day)	142	94	33.8%
Annual water saved (m ³ /year)	–	≈22,000	–
Leak-related losses (liters/month)	15,000	<10,000	35%
Cost savings (USD/year)	–	≈8,100	–



The data confirm that UzSWLU has achieved and maintained Level 5 (>80%) compliance for water-efficient appliances, while also demonstrating year-to-year improvement in measurable sustainability indicators.

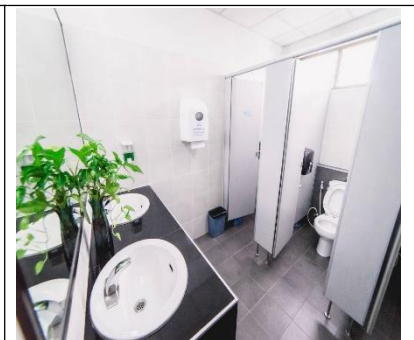
5. Monitoring and Future Directions

All performance indicators are reviewed monthly by the Green Office in cooperation with the Technical and Finance Departments.

Findings are reported in the Annual Sustainability Report 2025, shared with both national and international partners.

Looking forward, UzSWLU aims to:

- Expand water-efficient fixture coverage to 100% by 2026.
- Integrate the smart water monitoring platform with the university's broader Energy Management System.
- Extend rainwater reuse and greywater recycling systems to dormitories and new faculty buildings.
- Maintain its position as Uzbekistan's leading university in the Water category and strive for a higher global ranking in 2026.



Water Efficient Appliances Usage

Additional evidence link (i.e., for videos, more images, or other files that are not included in this file):