



KARSHI STATE UNIVERSITY
Sustainable Future Starts Today

Karshi State University
Sustainability Report 2025–2026



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Introduction

Karshi State University (KSU), established in 1945, is one of Uzbekistan's leading higher education institutions, located in the southern city of Karshi. The university plays a pivotal role in advancing education, science, and innovation in the region while actively supporting the national and global sustainability agenda. As part of its strategic development plan, KSU is committed to integrating sustainability into its campus operations, academic programs, and community partnerships — ensuring long-term environmental, social, and economic well-being.

The report covers activities, data, and progress achieved during the 2025–2026 academic year, focusing on the six major categories of the UI GreenMetric framework:

1. Setting and Infrastructure (SI)
2. Energy and Climate Change (EC)
3. Waste (WS)
4. Water (WR)
5. Transportation (TR)
6. Education and Research (ED)
7. Governance and Digitalization (GD)

KSU's sustainability activities are coordinated by the Department of International Rankings and Sustainable Development, which operates under the Office of the Vice-Rector for Scientific Affairs and Innovations. A cross-functional Sustainability Council engages representatives from all faculties, student organizations, and administrative units to implement, monitor, and evaluate progress toward the university's sustainability goals.

University Policy

Karshi State University (KSU) is committed to fostering a sustainable and environmentally responsible academic environment. As an institution dedicated to education, research, and community engagement, KSU recognizes its role in promoting environmental sustainability and reducing its ecological footprint. This policy outlines our commitment to sustainable practices, responsible resource management, and continuous improvement in environmental stewardship.

Objectives KSU's Environmental Sustainability Policy aims to:

- Integrate sustainability principles into university operations, teaching, and research.
- Reduce greenhouse gas emissions and energy consumption.
- Promote responsible water and waste management practices.
- Encourage sustainable transportation options.
- Foster a culture of sustainability among students, staff, and faculty.

- Comply with national and international environmental regulations and standards.
- Collaborate with local, national, and international partners on sustainability initiatives.

Energy and Climate Action

- Increase energy efficiency across all university buildings and facilities.
- Transition towards renewable energy sources where feasible.
- Implement energy-saving technologies and smart resource management systems.
- Reduce carbon emissions by promoting energy conservation measures.

Water Conservation and Management

- Minimize water waste through efficient usage and conservation programs.
- Implement drip irrigation and wastewater recycling systems where feasible.
- Encourage responsible water usage through awareness campaigns and training.

Waste Reduction and Recycling

- Establish a robust waste reduction, segregation, and recycling program.
- Reduce single-use plastics and promote sustainable alternatives.
- Encourage responsible waste disposal practices among students and staff.
- Collaborate with local waste management authorities to improve recycling efforts.

Sustainable Transportation

- Encourage the use of public transportation, cycling, and carpooling among staff and students.
- Provide infrastructure for eco-friendly transportation, such as bicycle racks and electric vehicle charging stations.
- Reduce emissions from university-owned vehicles by adopting low-carbon alternatives.

Sustainable Procurement and Consumption

- Prioritize the procurement of environmentally friendly and ethically sourced products.
- Reduce paper consumption through digitalization and responsible printing practices.
- Promote sustainable food and catering services on campus.

Education and Research for Sustainability

- Integrate environmental sustainability into curricula and research initiatives.
- Support faculty and student-led sustainability projects.
- Organize workshops, seminars, and events to raise awareness of environmental issues.

Community Engagement and Partnerships

- Work with local communities and government agencies to advance environmental sustainability goals.
- Participate in global sustainability initiatives and networks.
- Engage students in sustainability-driven community service and outreach programs.

Monitoring and Continuous Improvement

- Establish key performance indicators (KPIs) to track progress on sustainability initiatives.
- Conduct regular environmental impact assessments.
- Review and update this policy periodically to reflect emerging sustainability challenges and opportunities.

Implementation and Responsibility

- The university's Sustainability Committee will oversee the implementation of this policy.
- Faculty, staff, and students are expected to actively participate in sustainability initiatives.
- Collaboration with external partners and experts will be encouraged to enhance sustainability efforts.

Karshi State University is dedicated to making sustainability an integral part of its institutional identity. Through this policy, we reaffirm our commitment to protecting the environment and fostering a more sustainable future for our university community and beyond.

Section 1. Setting and Infrastructure

Number of Campus Sites

Karshi State University's Campuses

- Main Campus – the University's largest site. Area: 285356.83 m² (89.4% of the University's total area);
- Philology Faculty Campus – Area: 24278.17 m² (7.6%);

- University kindergarten “UniKids” – Area: 9472.00 m² (3.0%).
- Total University area: 319107.00 m² (sum of the three campuses, percentages sum to 100%).

Main Campus

Established in 1945, the Main Campus is recognized nationwide for its extensive grounds, convenient infrastructure, and green spaces. It accommodates 9 academic buildings and 8 dormitories (with 2 additional dormitories and study blocks located at the other campuses), as well as indoor and outdoor sports facilities, two libraries, landscaped areas and many other facilities. It is located approximately 1.5 km from the city center.

Philology Faculty Campus

This campus accommodates Philology Faculty students and includes a study block, a dormitory, a football field, and a gym. It is located about 2.5 km from the Main Campus.

University kindergarten “UniKids”

Located in the third micro-district, this campus previously hosted classes for the Roman-German Faculty. After that faculty was dissolved, some groups of the Foreign Languages Faculty continue studying here. The site contains one study block and a small park.

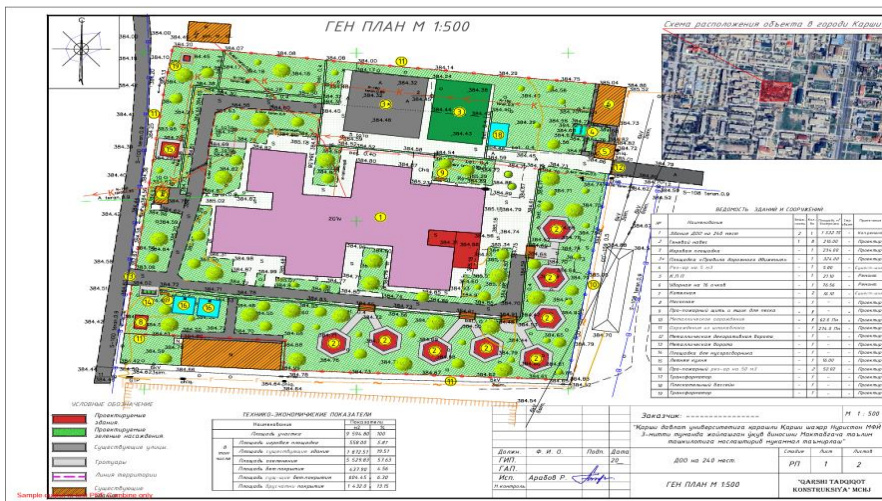


Main Campus Scheme

Qarshi davlat universiteti "Filologiya" fakulteti hududi



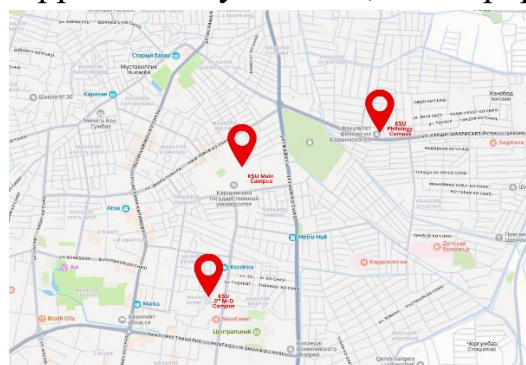
Philology Faculty Campus



University kindergarten “UniKids”

Campus Setting

All three Karshi State University campuses are located in an urban area within the city of Karshi, a mid-sized city in southern Uzbekistan. The campuses are situated inside the city limits: The Main Campus is about 1.5 km from the city center, the Philology Faculty Campus is about 5 km, and the University kindergarten “UniKids” is about 1 km from the city center. The city’s area is approximately 100 km², with a population of 295579 residents.



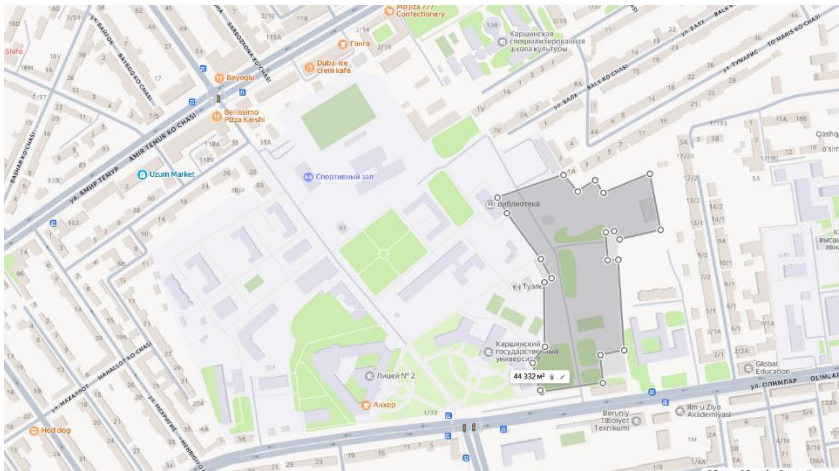
Total campus buildings area

Campus name	Total Building Area
Main Campus	105673.1 m2
Phylology Campus	8096.66 m2
University kindergarten “UniKids”	3128 m2
Total	116897.76 m2

Total area on campus covered in forest vegetation used for research, teaching, and/or community engagement

This is an estimated forest vegetation area within the Karshi State University campus. The total area of 44332 m² is designated for forest vegetation that contributes to research, teaching, and community engagement activities. This area supports the university's

sustainability initiatives, biodiversity conservation, and educational programs related to environmental studies and ecosystem management.



Total area on campus covered in planted vegetation

Total planted vegetation area: 177 328 м2

Total Area: 319 107 м2

Percentage area: 56%



Example of Total Planted Vegetation Area (Karshi State University)

University budget for sustainability effort (in US Dollars)



Karshi State University allocates a significant portion of its financial resources to promote sustainability and environmental responsibility across its campus operations and academic initiatives. Over the period 2023–2026, the university’s total institutional budget amounted to \$61597422 USD, from which \$18479226 USD—equivalent to 30%—was dedicated to sustainability-related activities and infrastructure development.

The sustainability budget is distributed across several key areas aligned with the university’s green campus priorities:

Energy efficiency and renewable energy (2.4%) – \$145161.29 USD:

Investments are made in energy-saving systems, lighting upgrades, and renewable energy initiatives to reduce carbon emissions and operational costs.

Waste reduction and recycling (0.1%) – \$4364.19 USD:

Programs promote recycling, waste segregation, and the reduction of single-use materials throughout the university.

Water conservation (1.4%) – \$85139.83 USD:

Funds are allocated to efficient irrigation systems, water-saving fixtures, and awareness campaigns to reduce water consumption.

Sustainable transport (0.6%) – \$34056.37 USD:

This includes the development of pedestrian-friendly paths, bicycle parking, and encouragement of low-emission transportation.

Sustainable procurement (16.2%) – \$996338.46 USD:

The university prioritizes environmentally friendly and locally sourced materials for campus operations and maintenance.

Facility maintenance for sustainability (79.3%) – \$4894681.86 USD:

A major share of the budget supports the maintenance and upgrading of university buildings, ensuring energy efficiency, accessibility, and compliance with green infrastructure standards.

Through these targeted allocations, Karshi State University demonstrates its strong commitment to the United Nations Sustainable Development Goals (SDGs) and the UI GreenMetric sustainability framework. The university continuously evaluates its expenditures to enhance energy performance, environmental protection, and the long-term sustainability of its educational environment.

Campus facilities for disable, special needs and or maternity care

Karshi State University provides inclusive and accessible facilities to support individuals with disabilities, special needs, and maternity care on campus. The university is committed to ensuring equal access to education, mobility, and comfort for all students, staff, and visitors.

1. Disabled parking for disabled people to park their car which located at parking which is 44 on the campus map.
2. Accessible toilets for disabled people are placed in every main building including faculties, dormitories, rectorate, library and etc.
3. Wheelchair ramps are installed at main entrances and along pathways to ensure barrier-free movement between buildings.
4. Corridors and key walking routes are equipped with tactile paving to guide visually impaired individuals safely.
5. Buildings feature Braille signboards on doors and directional signs to assist people with visual impairments in navigating independently.
6. In multi-story buildings like 1, 18 on the campus map, accessibility lifts (wheelchair lifts and platform lifts) are available to ensure mobility between floors.

	
1. <i>Disabled parking</i> (Karshi State University)	2. Accessible toilet (Karshi State University)

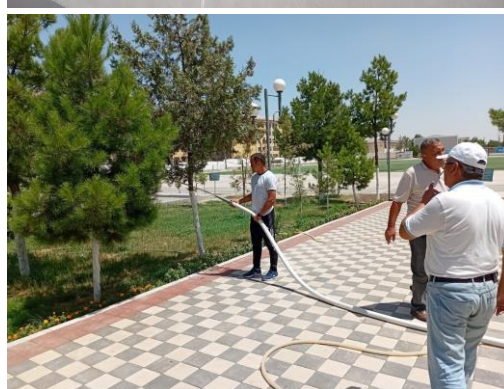
	
3. Accessible ramp (Karshi State University)	4. Tactile paving (Karshi State University)
	
5. Braille signboards (Karshi State University)	6. Accessibility lift (Karshi State University)

Security and safety facilities

Karshi State University ensures the safety and security of all students, staff, and visitors through a comprehensive and fully functional security and safety infrastructure. The campus is equipped with CCTV surveillance systems covering academic buildings, dormitories, and outdoor areas to monitor and prevent potential incidents.

An emergency hotline and alarm system are available to provide immediate assistance in case of emergencies, while trained and certified security personnel are stationed throughout the campus to ensure rapid response and support. The university's response time for accidents, crimes, fire incidents, or natural disasters is less than five minutes, ensuring efficient management of any emergency situation.

In addition, the campus maintains fire safety equipment, including fire extinguishers, hydrants, and alarm systems, regularly inspected and maintained for optimal performance. Regular safety drills and awareness programs are conducted to prepare the university community for emergency situations and to promote a culture of safety and responsibility across the campus.



	
1. CCTV and Security Staff (Karsshi State University)	2. Fire safety facilities (Karshi State University)

Health infrastructure facilities for students, academics and administrative staffs' wellbeing

Karshi State University is committed to safeguarding the health and well-being of its students, academics, and administrative staff by maintaining accessible medical care and first-aid facilities (medical treatment rooms) across the university. Each medical room is designed to provide immediate healthcare assistance. In addition, Medical Faculty staff and students play an active role in supporting the university community by offering first-aid services and professional consultations when required. Mental-health and psychological support are also available to help students and staff manage stress and maintain overall well-being.

Beyond on-campus medical rooms, the university collaborates with local healthcare providers to ensure that students and staff can access comprehensive medical services, including preventive care and specialized treatment. Health-awareness programs, vaccination campaigns, and regular medical check-ups are organized to promote a healthy lifestyle within the academic community.

1. Medical room at the Medical faculty study block
2. Medical room at the Physics and Mathematics faculties study block
3. Medical treatment room at the Foreign Language faculty study block
4. University psychologist's office (free consultations, seminars, and workshops available)
5. Karshi State University medical center



1. Medical room in the Medical Faculty study block



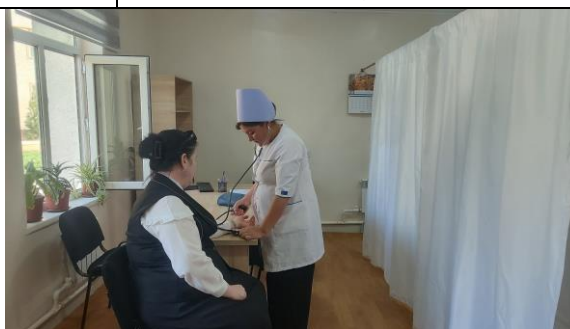
2. Medical room in the Physics and Mathematics Faculties study block



3. Medical treatment room in the Foreign Language Faculty study block



4. University psychologist's office (free consultations, seminars, and workshops available)



5. Karshi State University medical center

Conservation: plant, animal, and wildlife, genetic resources for food and agriculture secured in either medium or long-term conservation facilities

Karshi State University has implemented several conservation-oriented initiatives that integrate Information and Communication Technology (ICT) to ensure the sustainable management of plant, animal, and agricultural genetic resources. These programs contribute to biodiversity preservation, sustainable food production, and the enhancement of academic and research activities.

Key conservation initiatives include:

- **Main Campus Greenhouse:** Located on the university's main campus, this facility focuses on the conservation and cultivation of **tomatoes and cucumbers** under controlled environmental conditions. ICT-based systems monitor temperature, humidity, and irrigation to ensure optimal plant growth. The greenhouse also serves as a **practicum site for students**, enabling hands-on learning in sustainable horticultural practices.
- **Mushroom Greenhouse:** Managed by university staff, this specialized greenhouse conserves and cultivates **over 10 varieties of edible mushrooms** and an equivalent number of **medicinal mushrooms**. Smart monitoring systems regulate light, humidity, and temperature to maintain ideal growth conditions. The project supports both scientific research and food sustainability goals, while fostering innovation in biotechnology and sustainable agriculture.
- **Innovative Potato Field Conservation:** A research-based field project where ICT-enabled soil and crop monitoring systems are used to enhance the sustainability and genetic diversity of potato cultivation.
- **Rabbits and Rats Conservation:** Located within the university's Biological Research Center, this facility is dedicated to the controlled conservation and breeding of small mammals for educational and scientific research. The unit currently maintains 26 rabbits and 32 rats, ensuring genetic diversity and ethical care in compliance with laboratory animal welfare standards. ICT-based monitoring systems regulate temperature, humidity, and light exposure, while automated feeding and health-tracking software support efficient animal care management. The facility serves as a practicum and research site for students in biology, veterinary medicine, and biotechnology, enabling hands-on training in animal behavior studies, nutrition experiments, and biomedical research.

These initiatives reflect Karshi State University's commitment to integrating ICT in conservation-related infrastructure, combining environmental stewardship, technological innovation, and practical education.



Green House (Karshi State University)



Mushroom green house (Karshi State University)



Innovative potato field conservation (Karshi State University)



Setting and Infrastructure through the utilization of Information and Communication Technology

Karshi State University actively integrates Information and Communication Technology (ICT) in the planning, implementation, monitoring, and evaluation of all campus setting and infrastructure programs to enhance educational quality, operational efficiency, and sustainability.

All lecture and classroom facilities are equipped with modern ICT-based tools such as telesets, smart TVs, projectors, and computers, allowing for multimedia presentations, online resources, and hybrid teaching environments. The university makes extensive use of Zoom video conferencing and other digital platforms for academic meetings, lectures, and international collaborations, ensuring global connectivity and accessibility.

To strengthen campus security and operational monitoring, Face ID cameras are installed in strategic locations across the university, providing automated attendance tracking, secure access control, and real-time surveillance.

For language and translation training, specialized rooms are equipped with voice amplifiers and digital recorders, enabling clear communication, simultaneous interpretation, and accurate performance evaluation.

Currently, the university utilizes:

- 1305 computers,
- 128 video projectors,
- 2 LED screens (6×4 m) and 7 LED screens (3×2 m),
- 44 interactive panels,
- 10 info kiosks,
- 103 smart televisions,
- 152 Wi-Fi routers,
- 4 E-MINBAR systems,
- 157 classrooms equipped with IP surveillance cameras,
- 16 computer laboratories,
- 140 computers installed in the Information Resource Centre, and

- 96 computers provided in the Student Dormitory.

All ICT systems are interconnected through the university's internal digital management network, which supports administrative planning, infrastructure monitoring, and performance evaluation. Regular assessments and updates are conducted to ensure that ICT tools remain effective, energy-efficient, and aligned with the university's sustainability and smart campus goals.

Through the integration of advanced ICT solutions, Karshi State University demonstrates its commitment to innovation, transparency, and continuous improvement in managing campus infrastructure and academic environments.

Energy and Climate Change

Energy Efficient Appliances Usage

Systematic work is being carried out at Karshi State University to ensure the efficient use of electricity. Large-scale technical modernization has been implemented in university buildings to increase energy efficiency and reduce electricity consumption. In recent years, lighting, cooling, and office equipment in all major buildings have been fully replaced with energy-efficient models. These measures are aimed at reducing the university's electricity consumption, decreasing its carbon footprint, and practically implementing the "green campus" concept.

LED lighting system: 100% of the university buildings are fully equipped with LED lamps. Old fluorescent and halogen lights have been gradually replaced. As a result, up to 100,000 kWh of electricity is saved annually.

Thermal insulation: All new educational and administrative buildings constructed in the past 4–5 years are equipped with thermal insulation. This has reduced energy consumption by 20–25% during winter and summer seasons.

Energy-efficient equipment: All electrical appliances and laboratory instruments purchased by the university belong to the A+ or A++ energy efficiency class. Energy efficiency is the main criterion in the selection of computers, printers, servers, refrigerators, and air conditioning systems.

The number of renewable energy sources (solar panels) has reached **2790 units**. The campus hosts a "**Laboratory for the Use of Alternative Energy Sources**", where the **daily amount of energy produced, energy consumed, and energy saved** are continuously monitored using **modern tracking technologies**.

Between May 2025 and April 2026, the university recorded the following energy consumption data:

Months	Electricity generated by solar panels (kWh)	Electricity used for internal needs (kWh)	Electricity purchased from the grid (kWh)	Electricity sold to the grid (kWh)	Total electricity consumed (kWh)
2025	1 370 248	744 713	881 680	625 445	1 626 393
1. May	188 149	118 342	113 581	69 807	
2. June	150 797	69 815	72 562	80 892	
3. July	203 139	96 035	53 025	107 104	
4. August	268 499	115 406	38 532	153 093	
5. September	210 109	116 810	86 956	93 299	
6. October	149 248	75 869	114 637	73 379	
7. November	133 037	96 437	172 633	36 600	
8. December	67 270	55 999	229 754	11 271	
2026	539 188	332 114	671 835	207 074	1 003 949
9. January	88 738	65 005	193 116	23 733	
10. February	108 198	74 238	182 750	33 960	
11. March	162 934	99 412	171 790	63 522	
12. April	179 318	93 459	124 179	85 859	

Total electricity consumption during the last 12 months: **2 630 342 kWh**. Total electricity generated by solar panels: **1 909 436 kWh**.

$$\text{Percentage (share)} = \frac{(\text{Electricity generated})}{(\text{Total electricity consumption})} \cdot 100 = \frac{1909436 \text{ kWh}}{2630342 \text{ kWh}} \cdot 100 = 72.5\%$$

The reduction is explained by several key factors:

- Implementation of **LED lighting systems** and **thermal insulation** in new academic buildings;
- Use of **A+ energy efficiency class** equipment in some laboratories and offices;
- Launch of a **real-time online energy monitoring system** for continuous supervision.

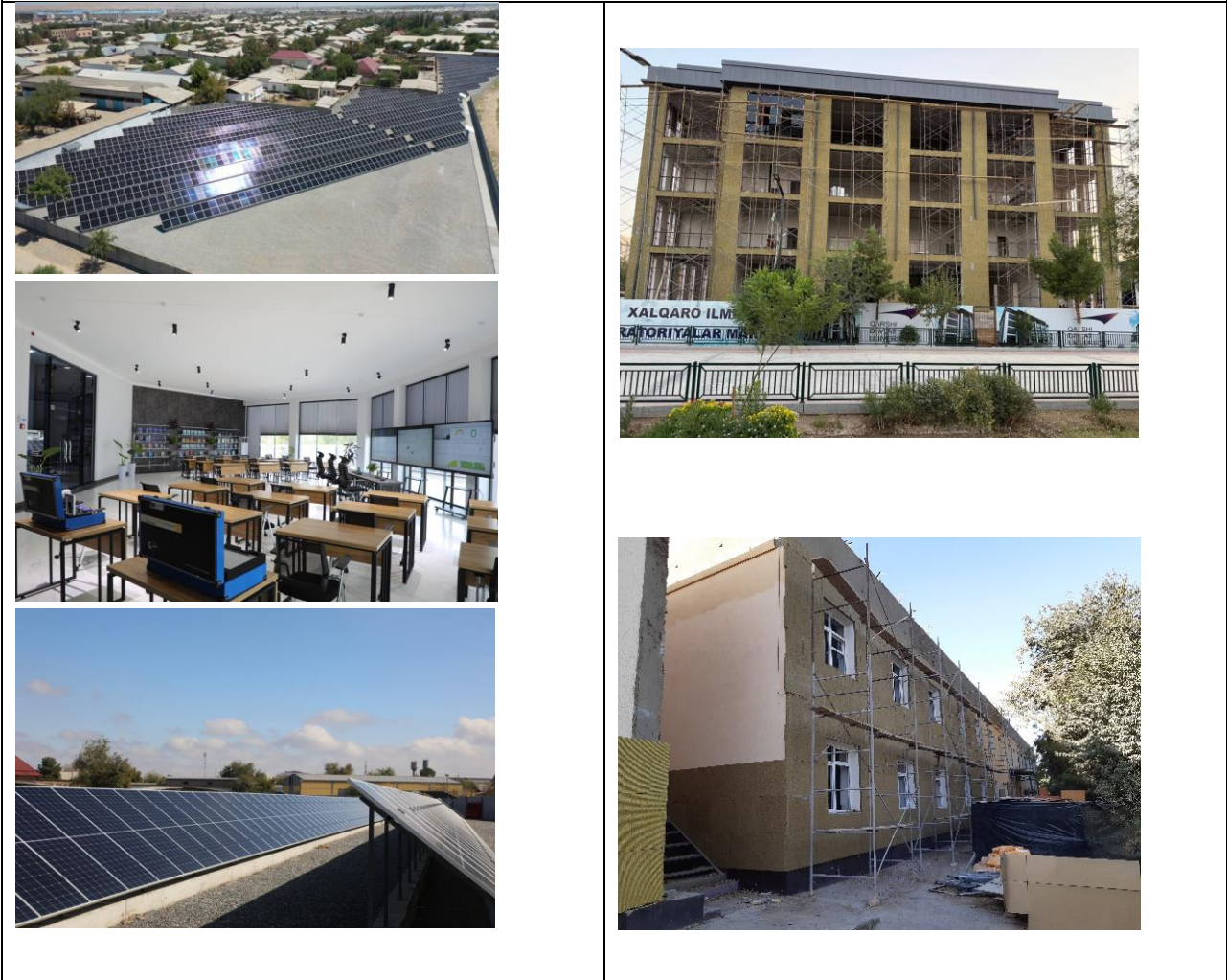
Electricity at the university is primarily used for the following purposes:

- Lighting of academic buildings and laboratories;
- Powering air conditioning and heating systems;
- Operation of computers, servers, and IT infrastructure;
- Household equipment in dormitories, cafeterias, and administrative offices.

As of 2025, Karshi State University covers a significant portion of its total electricity consumption through **solar energy generated by its own panels**. This, on the one hand, has reduced dependence on the regional electricity grid, and on the other hand, has **enhanced the university's overall energy efficiency**.



Example of Energy Efficient Appliances Usage: Use of LED lighting and lamps with light detection (Karshi State University)



Example of Energy Efficient Appliances Usage: Solar absorption system and thermal insulated buildings (Karshi State University)

No.	Name	Place	automation		safety				energy		water		Indoor environment				lighting				Buildi ng Area (m²)
			B1	B2	S1	S2	S3	S4	E1	E2	A1	A2	I1	I2	I3	I4	L1	L2	L3	L4	
	Karshi State University; Rectorate	Karshi, Kashkadarya	x			x	x	x		x				x		x		x	x	11251	
	Karshi State University; Foreign languages faculty	Karshi, Kashkadarya	x			x	x	x		x				x		x		x	x	59508	
	Karshi State University; Faculty of Medicine	Karshi, Kashkadarya	x			x	x	x	x		x		x	x	x	x	x	x	x	15648	
	Karshi State University; University Kindergarten “UniKids”	Karshi, Kashkadarya	x			x	x	x	x		x		x	x	x	x	x	x	x	3230	
	Total																			89637	

Total Building Area: 116898 m²

$$\frac{89637m^2}{116898m^2} \times 100\% = 76,67\%$$

Renewable energy production

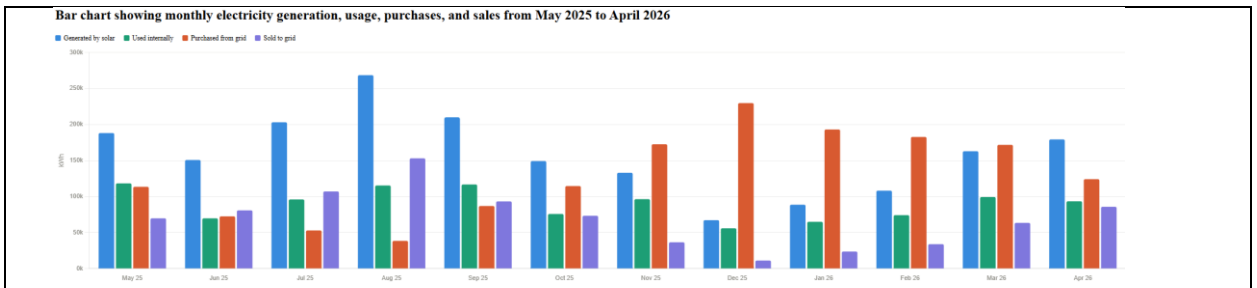
Karshi State University implements an active policy to develop renewable energy sources. Clean electricity is generated through solar panels installed on the rooftops of nearly all campus buildings. In addition, a small-capacity solar power plant also operates within the university campus.

As of 2025–2026, the university has achieved the following results:

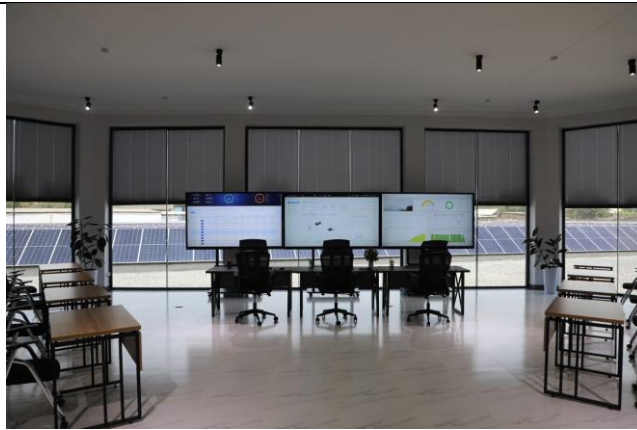
- Total installed capacity of solar panels: **1545 kWh**
- Number of buildings equipped with solar panels: **17**
- Total number of installed solar panels: **2970** units
- A **510 kW** small solar power plant was built within the campus area in August 2023.
- During the first 12 months (*May 2025 and April 2026*), the total amount of electricity generated was **1 909 436 kWh**.
- Electricity purchased from the grid during the last 12 months (*May 2025 and April 2026*): **720 906 kWh**
- Total electricity consumption during the last 12 months: **2 630 342 kWh**

Calculation:

The share of clean energy generated by solar panels in total electricity consumption is as follows: 72,5%



Electricity generation and consumption in 2025-2026 (Karshi State University)



Online system for monitoring energy consumption (Karshi State University)

In recent years, the electricity consumption of Karshi State University has been steadily optimized. The university meets its energy needs through both electricity purchased from the regional grid and solar energy generated on its own premises. Electricity usage at Karshi State University is monitored monthly through a dedicated energy control system.

Months	Electricity generated by solar panels (kWh)	Electricity used for internal needs (kWh)	Electricity purchased from the grid (kWh)	Electricity sold to the grid (kWh)	Total electricity consumed (kWh)
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Between May 2025 and April 2026, the university recorded the following energy consumption data:

Total electricity consumption during the last 12 months: **2 630 342 kWh**. Total electricity generated by solar panels: **1 909 436 kWh**.

$$\text{Percentage (share)} = \frac{(\text{Electricity generated})}{(\text{Total electricity consumption})} \cdot 100$$

$$= \frac{1909436 \text{ kWh}}{2630342 \text{ kWh}} \cdot 100 = 72.5\%$$

The reduction is explained by several key factors:

- Implementation of **LED lighting systems** and **thermal insulation** in new academic buildings;
- Use of **A+ energy efficiency class** equipment in some laboratories and offices;
- Launch of a **real-time online energy monitoring system** for continuous supervision.

Electricity at the university is primarily used for the following purposes:

- Lighting of academic buildings and laboratories;
- Powering air conditioning and heating systems;
- Operation of computers, servers, and IT infrastructure;
- Household equipment in dormitories, cafeterias, and administrative offices.

As of 2025, Karshi State University covers a significant portion of its total electricity consumption through **solar energy generated by its own panels**. This, on the one hand, has reduced dependence on the regional electricity grid, and on the other hand, has **enhanced the university's overall energy efficiency**.



Solar panel energy production (Karshi State University)

Greenhouse gas emission reduction program

Located in the Kashkadarya region, Karshi State University is implementing a comprehensive greenhouse gas (GHG) reduction program based on a sustainable transport system, energy efficiency, and renewable energy sources across its campus.

Within the framework of this program, the following initiatives have been carried out:

- On April 3, 2025, the University Council officially established the “Sustainability Committee”, which coordinates the “Green Campus” activities and promotes environmental awareness.
- A 544-meter-long pedestrian and bicycle path connecting the university’s two main gates has been created and renovated. In addition, safe and comfortable conditions for walking and cycling have been fully established throughout the campus.
- Motor vehicle entry to the campus area has been completely prohibited (except for emergency situations). The university’s parking area of approximately 1200 m² has been entirely closed. Previously, vehicle movements and idling in this area generated about 1.2 tons of CO₂ emissions per year, equivalent to the annual CO₂ absorption capacity of about 50 mature trees. Closing the parking area has therefore contributed to the reduction of that amount of CO₂ emissions.

- All university buildings have been equipped with energy-efficient LED lighting systems. Moreover, 90% of the buildings are insulated, which helps reduce the energy required for heating and cooling.
- All newly purchased electrical appliances and laboratory equipment are now energy-efficient models, in accordance with the university's "Green Procurement Policy."
- Solar panels have been installed on 17 university buildings, and a small solar power plant with a capacity of 510 kW has been built on campus. The total capacity of all solar systems amounts to 1545 kW, generating clean electricity and reducing dependence on the power grid.
- 177328 m² (55.6%) of the campus area is covered with greenery, while 38472 m² (12%) consists of permeable surfaces that absorb water and improve natural drainage. These areas help regulate air temperature, reduce heat accumulation, and naturally support CO₂ absorption.

These measures make a significant contribution to reducing the university's overall carbon footprint and fostering an ecological and sustainable culture. These initiatives form part of the university's long-term strategy to achieve carbon neutrality by 2030.

	
1. Pedestrian and bicycle path (Karshi State University)	2. Renewable energy (Karshi State University)



3. Greenery and permeable surfaces (Karshi State University)

Total Carbon Footprint

Over the past 12 months (from October 2025 to June 2026), Karshi State University calculated its total energy consumption and the amount of clean energy produced to determine its greenhouse gas (CO₂) emissions. The calculations were based on electricity consumption, renewable energy (solar panels), and the use of natural gas (for all university needs).

1. Electricity Consumption Data:

Emission factor for electricity: 0.4 kg CO₂/kWh.

(This coefficient of 0.4 kg CO₂/kWh is based on Uzbekistan's national energy system, as the country's electricity is mainly produced from natural gas.)

Calculations:

Electricity purchased from the grid (12 months): 1543287 kWh

$$\text{CO}_2 (\text{electricity}) = \frac{1,543,287 \text{ kWh}}{1000} \times 0.4 = 617.31 \text{ tons of CO}_2$$

The electricity generated by the university's solar panels has zero emissions, and any surplus energy is exported to the grid. The CO₂ offset includes both the solar energy fed into the grid and that used directly on campus, as both replace electricity that would otherwise be drawn from the grid.

Solar electricity generated (12 months): 1832706 kWh

$$\text{CO}_2 (\text{offset}) = \frac{1,832,706 \text{ kWh}}{1000} \times 0.4 = 733.1 \text{ tons of CO}_2$$

2. Natural Gas Consumption Data:

Natural gas consumption covers all campus use, including heating systems, kitchens, and student dormitories.

Emission factor for natural gas: 1.9 kg CO₂/m³

Calculations:

Natural gas consumption (12 months): 581173 m³

$$\text{CO}_2 (\text{gas}) = \frac{601,000 \text{ m}^3}{1000} \times 1.9 = 1141.9 \text{ tons of CO}_2$$

3. Summary Table (Gross, Offset, Net Results):

Indicator	Amount (tons of CO ₂)	Explanation
Gross (electricity from the grid)	617.31	Emissions from electricity consumed from the grid
Offset (solar panels)	−733.08	Emission reductions due to clean energy generation from solar panels
Emissions from natural gas	1141.9	CO ₂ emissions resulting from natural gas use
Net (final)	1759.21	University's net (final) carbon footprint

The net carbon footprint of Karshi State University for the past 12 months is approximately 1759.21 tons of CO₂ equivalent.

Number of innovative program(s) in energy and climate change

A self-operating automatic cleaning mechanism is being developed to continuously remove dust, debris, and other contaminants accumulated on the surface of solar panels. This project aims to increase the efficiency of solar panels and protect them from fire hazards by creating an

automated cleaning and rapid-response system that uses drones to detect and extinguish fires around solar installations.





Impactful university program(s) on climate change

Karshi State University actively uses Information and Communication Technology (ICT) to plan, implement, monitor, and evaluate all programs related to energy efficiency and climate change.

The university operates an online energy monitoring system that continuously tracks electricity generation from 2790 solar panels, overall campus energy consumption, and the amount of energy exported to the national grid.

This digital system provides real-time data on energy use and supports informed decision-making for improving energy efficiency and reducing carbon emissions.

ICT tools are also applied during the planning and implementation stages of projects, such as:

- Designing energy-efficient lighting systems (LED installations);
- Tracking energy-saving measures through internal electronic reports;

- Managing building retrofits with energy-saving materials and A+ class devices.

All collected digital data (daily, monthly, and annual) are stored and analysed through spreadsheets and online dashboards.

Waste

3R (Reduce, Reuse and Recycle) Program for University Waste

In recent years, Karshi State University has gradually implemented the “3R: Reduce, Reuse, Recycle” program within the framework of the “Green Campus” concept. Through this program, a system of waste reduction, reuse and recycling has been established on the campus. Separate waste containers have been installed in front of each faculty building (included in this file), which are separately allocated for plastic, paper, and organic waste. During the “Eco Week,” in cooperation with Kashkadarya Regional Ecology Department, events and fests, trainings and agitation campaigns are held among students and university staff on the correct separation of waste. In addition, the university has established permanent cooperation with Eco Trans to transfer waste to recycling enterprises.



Advocacy Posters at Karshi State University



Bins for separate waste collection recycling



Environmental events, including sustainability study seminars and trash collection and sorting events inside and outside the university campus held by the “Yosh Ekopatrul” volunteers

Total volume of paper and plastic produced

Type of waste	amount (ton)		
	Produced		reduced
	Last year	This Year	
Plastic	29.2	24.8	4.4
Paper	47.4	40.3	7.1

In 2025, Karshi State University (KSU) produced a total of 65.1 tons of paper and plastic waste, including 40.3 tons of paper and 24.8 tons of plastic. This marks a reduction compared to the previous year, demonstrating the university’s ongoing improvements in waste management.

KSU ensures waste segregation at the source by providing separate bins for paper, plastic, and other waste across all academic and administrative buildings. The collected materials are then transferred to the central waste collection area, where they are weighed, documented, and sent for recycling.

The university collaborates with Eco Trans, a licensed centralized waste collection organization in Uzbekistan, to ensure the proper recycling and disposal of paper and plastic waste. Karshi State

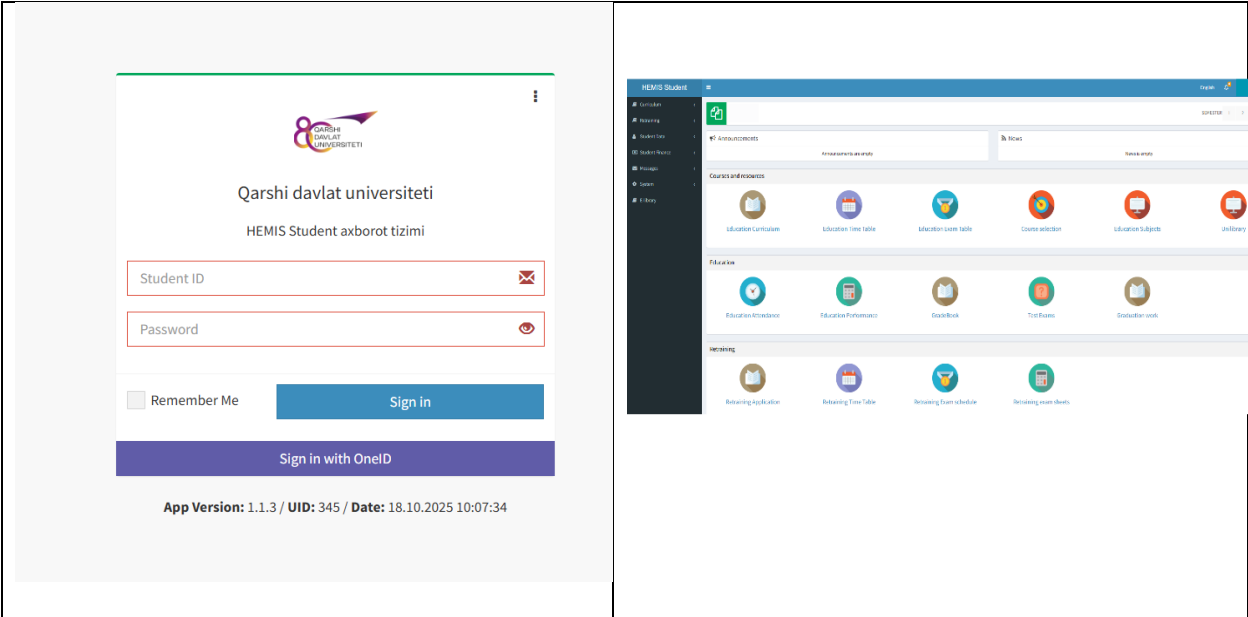
University’s efforts to reduce paper consumption include digitalization of administrative processes, electronic communication, and encouraging double-sided printing.

Additionally, the university’s volunteer group “Yosh Ekopatrul”, consisting of environmentally active students, regularly participates in clean-up campaigns both on campus and throughout Karshi city. This initiative fosters environmental awareness and strengthens youth responsibility for protecting the environment.

Program to Reduce the Use of Paper and Plastic on Campus

In recent years, the university has significantly reduced its use of paper by digitizing its administrative and educational processes. Class schedules, orders, reports, and student gradebooks are now maintained electronically in the HEMIS system. Teachers and students also use the Google Classroom and Moodle platforms. In an effort to reduce plastic use, the university’s cafeterias have replaced single-use plastic containers with reusable ceramic or metal tableware. In student dormitories, instead of plastic water bottles, clean drinking water is provided through a filtration system.

The Program also includes events promoting environmental sustainability. Under the Plastic and Paper Reduce Program, seminars such as “Save Nature”, “Ecological Culture - Sustainable Future”, “Green Uzbekistan”, as well as the “Eco Week” festival, have been held on the university’s campus. The university hosted an international scientific and practical conference on “Environmental Education and Sustainable Development”, which was attended by more than 100 scientists and students.



HEMIS system





Total volume organic waste produced

Type of waste	amount (ton)					
	Produced			Treated		
	Last year	This Year		reused	down-cycled	up-cycled
organic	227.6	216	11.6	59.6	99.2	57.2
- food waste	209.3	198.5	10.8	59.6	99.2	39.7
- leaf	18.3	17.5	0.8	0.0	0.0	17.5

Karshi State University continues to improve its sustainable waste management practices by reducing the generation of organic waste and increasing resource recovery activities. During the reporting period, total organic waste generation decreased from **227.6 tons** in the previous year to **216.0 tons**, representing a reduction of **11.6 tons**.

Food waste constituted the largest share of organic waste, decreasing from **209.3 tons** to **198.5 tons**. Through composting, animal feed programs, and other recovery initiatives, **59.6 tons** of food waste were reused, while **99.2 tons** were down-cycled and **39.7 tons** were up-cycled into valuable products.

Leaf waste generation also decreased from **18.3 tons** to **17.5 tons**. All collected leaf waste was transformed into compost and landscaping materials through up-cycling initiatives, contributing to a circular campus ecosystem.

These efforts support the university's commitment to sustainable resource management and align with the principles of the circular economy and the United Nations Sustainable Development Goals (SDGs).

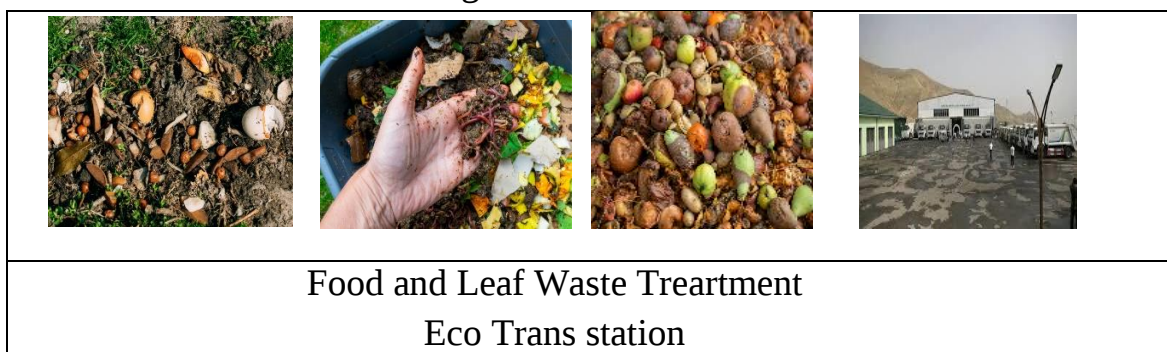
Organic Waste Treatment

The main sources of organic waste at KSU are cafeterias and dormitories (209.3 tons of food waste) and green zones (18.3 tons of leaf waste). The university ensures a proper reuse cycle for organic waste, including its separated collection, appropriate storage, processing, and reuse.

18.7 tons of food waste underwent a down-cycle and were reused as animal feed. The recycling process included granulation, reducing landfill disposal, and promoting circular resource use.

18 tons of leaf waste were up-cycled into nutrient-rich biomass fertilizer by adding California red worms, which is then used to improve soil quality in the university's green areas.

The remaining waste is handled in cooperation with Eco Trans, a licensed centralized waste collection organization in Uzbekistan.



Total volume inorganic waste produced

Type of waste	amount (ton)					
	Produced		reduced	Treated		
	Last year	This Year		reused	down-cycled	up-cycled
inorganic non-toxic	245.7	216.1	29.6	30.2	149.8	36.1
Construction materials like metals	169.1	151.0	18.1	30.2	90.6	30.2
Paper	47.4	40.3	7.1	0.0	40.3	0.0
Plastic	29.2	24.8	4.4	0.0	18.9	5.9

Karshi State University is committed to minimizing the environmental impact of its operations through effective management of inorganic non-toxic waste. During the reporting period, the total amount of inorganic non-toxic waste generated decreased from **245.7 tons** in the previous year to **216.1 tons**, achieving a reduction of **29.6 tons**.

Construction materials, including metals, represented the largest category of inorganic waste. The amount generated decreased from **169.1 tons** to **151.0 tons**, reflecting improved resource efficiency and waste prevention measures. Of this amount, **30.2 tons** were reused, **90.6 tons** were down-cycled, and **30.2 tons** were up-cycled into valuable materials.

Paper waste generation declined from **47.4 tons** to **40.3 tons**. All collected paper waste was diverted from landfill and processed through recycling programs, resulting in **40.3 tons** being down-cycled into new paper products.

Plastic waste also decreased from **29.2 tons** to **24.8 tons**. Through the university's waste segregation and recycling initiatives, **18.9 tons** of plastic waste were down-cycled and **5.9 tons** were up-cycled into reusable products and construction materials. These achievements demonstrate the university's commitment to sustainable waste management, resource conservation, and circular economy practices, contributing to the realization of the United Nations Sustainable Development Goals, particularly SDG 11 (Sustainable Cities and Communities), SDG 12 (Responsible Consumption and Production), and SDG 13 (Climate Action)

Inorganic Waste Treatment

Type of waste	amount (ton)					
	Produced		reduced	Treated		
	Last year	This Year		reused	down-cycled	up-cycled
inorganic non-toxic	245.7	216.1	29.6	30.2	149.8	36.1
Construction materials like metals	169.1	151.0	18.1	30.2	90.6	30.2
Paper	47.4	40.3	7.1	0.0	40.3	0.0
Plastic	29.2	24.8	4.4	0.0	18.9	5.9

Karshi State University implements comprehensive waste management practices to reduce the environmental impact of inorganic non-toxic waste generated across campus. During the reporting year, the total amount of

inorganic non-toxic waste decreased from **245.7 tons** to **216.1 tons**, resulting in a reduction of **29.6 tons** compared to the previous year.

Construction materials, including metals, constituted the largest portion of inorganic waste. Waste generation in this category declined from **169.1 tons** to **151.0 tons**. Through effective recovery and recycling measures, **30.2 tons** were reused, **90.6 tons** were down-cycled, and **30.2 tons** were up-cycled for further productive use.

Paper waste generation was reduced from **47.4 tons** to **40.3 tons**, reflecting the university’s efforts to promote digital documentation and responsible paper consumption. All collected paper waste was diverted from disposal and processed through recycling programs.

Plastic waste also showed a significant decrease, from **29.2 tons** to **24.8 tons**. Of the collected plastic waste, **18.9 tons** were down-cycled and **5.9 tons** were up-cycled into reusable products, supporting circular economy principles and reducing landfill dependence.

These initiatives demonstrate the university’s commitment to sustainable resource management, waste reduction, and environmental protection, contributing to the achievement of the Sustainable Development Goals (SDGs), particularly SDG 12 (Responsible Consumption and Production) and SDG 13 (Climate Action).



Total volume toxic waste produced

Type of waste	amount (ton)					
	Produced			Treated		
	Last year	This Year		reused	down-cycled	up-cycled
toxic	1.1	1.0	0.1	0.0	1.0	0.0

Karshi State University maintains strict procedures for the collection, handling, storage, and disposal of toxic waste generated through laboratory, maintenance, and research activities. The university prioritizes waste minimization and

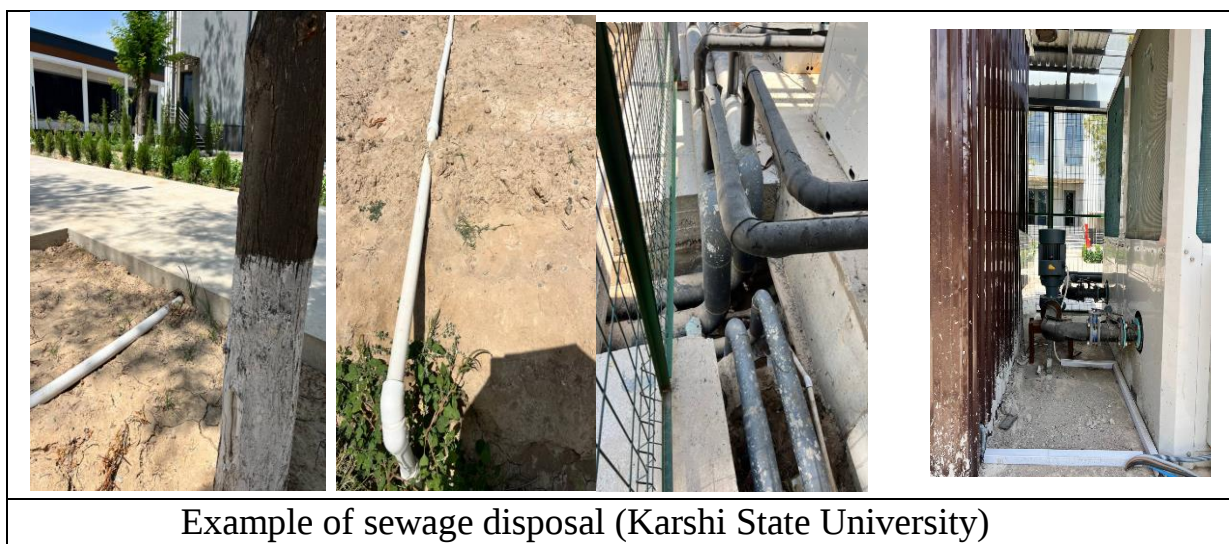
compliance with environmental and safety regulations to prevent adverse impacts on human health and the environment.

During the reporting period, the amount of toxic waste generated decreased from **1.1 tons** in the previous year to **1.0 ton**, representing a reduction of **0.1 ton**. All toxic waste generated on campus was carefully segregated and transferred to authorized waste management facilities for appropriate treatment.

A total of **1.0 ton** of toxic waste was treated through approved down-cycling and disposal processes, ensuring safe handling and environmental protection. No toxic waste was reused or up-cycled due to safety and regulatory requirements associated with hazardous materials.

Through continuous monitoring, staff training, and responsible waste management practices, the university remains committed to reducing hazardous waste generation and ensuring a safe and sustainable campus environment in line with national environmental regulations and the Sustainable Development Goals, particularly SDG 3 (Good Health and Well-being), SDG 12 (Responsible Consumption and Production), and SDG 13 (Climate Action).

Sewage Disposal





Sewage disposal and wastewater recycling system

Karshi State University has established an integrated sewage collection, treatment, and water recycling system to support sustainable water management across the campus. Wastewater generated from academic buildings, administrative offices, cafeterias, dormitories, and other campus facilities is collected through a centralized sewerage network and transferred to the university's Water purification and recycling station. At this facility, wastewater undergoes advanced treatment and purification processes, including reverse osmosis (RO) technology, to improve water quality and enable safe reuse.

In addition, laboratory wastewater is conveyed through a separate dedicated pipeline system and collected in specially designed treatment ponds before

entering the purification process. This separate collection system ensures the safe management of laboratory wastewater and minimizes environmental risks. Following treatment through the water purification system and reverse OSMOS technology, the reclaimed water is reused for landscape irrigation, maintenance of green areas. This practice significantly reduces freshwater consumption, promotes efficient water resource management, and supports the university's sustainability goals. The wastewater treatment and recycling infrastructure is regularly monitored and maintained to ensure operational efficiency, environmental protection, and compliance with environmental regulations.

Impacts

- 1)Collection and treatment of wastewater from academic buildings, dormitories, cafeterias, and laboratories.
- 2)Application of reverse osmosis (RO) technology for advanced water purification.
- 3)Reuse of treated water for irrigation and campus landscape management
- 4)Reduction in freshwater consumption and water-related environmental impacts.
- 5)Improved water efficiency through circular water management practices.
- 6)Enhanced environmental sustainability and protection of local water resources.

Waste Management through the utilization of Information and Communication Technology

At Karshi State University (KSU), waste management activities are planned, monitored, and evaluated using Information and Communication Technology (ICT) tools. The university uses digital records and data analysis systems to assess waste generation and plan reduction strategies based on the 3R (Reduce, Reuse, Recycle) concept. Waste collection and recycling data from various categories are tracked and reported through internal digital platforms. Cooperation with Eco Trans, a licensed waste collection organization, includes digital monitoring of disposal processes. The ICT Department and the Department of Maintenance and Environmental Management jointly analyse data and prepare annual reports to evaluate progress and improve sustainability performance.



Water

Water Conservation Program Implementation

Karshi State University (KSU) has implemented an extensive Water Conservation Program to ensure the efficient and sustainable use of water resources across its campus. The university operates a total of 23 water reservoirs, including 7 with a capacity of 1000 m³ and 16 with capacities ranging from 300 to 600 m³.

KSU utilizes water from 15 artesian wells, where the groundwater is purified using the modern “ASMOS” water treatment technology. This process converts artesian water into safe drinking water, which is then stored in reservoirs and distributed throughout university facilities.

For the irrigation of green areas, the university uses non-drinking technical water to reduce the consumption of potable water. Additionally, rainwater collected through roof drainage systems is reused for watering green spaces, further supporting the university’s sustainable water management strategy.

KSU also conducts regular maintenance and monitoring to prevent leakage and ensure efficient water use. Awareness campaigns are organized among students and staff to promote a culture of water conservation.



Water tank (Karshi State University)



In Ground Water Tank (Karshi State University)

Water Recycling Program Implementation

Karshi State University has implemented a comprehensive water recycling and purification system across its campuses to ensure sustainable water consumption. The university operates 15 artesian wells that provide water to all the campuses, including academic buildings, dormitories, laboratories, and administrative facilities.

In 2023, a new “Asmos” Water Recycling and Purification Station was installed within the university campus territory. This advanced system purifies artesian water, making it suitable for both drinking and domestic use (toilets, cleaning, and general campus supply). The Asmos technology includes multi-stage filtration, ensuring compliance with sanitary and environmental safety standards.

The station recycles and processes 300 m³ of water per hour, supplying purified water for drinking purposes while simultaneously reusing treated water for non-potable needs such as sanitation and irrigation. This has significantly reduced the university’s dependence on external water sources and it promotes circular water use within the campus.

The Asmos program reflects the university's strong commitment to SDG 6 (Clean Water and Sanitation) and its integration into sustainable campus infrastructure.



Water Efficient Appliances Usage

Karshi State University (KSU) actively implements various water efficiency measures across its campus to minimize water consumption and promote sustainable resource management.

For irrigation, the university uses modern sprinkler systems and drip irrigation technologies in green areas. These systems ensure that water is applied directly to plant roots or evenly distributed across lawns, which significantly reduces water wastage and enhances efficiency, especially during the dry season.

Within university buildings, water-saving devices are installed in restrooms and washrooms. These include low-flow taps, dual-flush toilets that help reduce unnecessary water flow. Regular monitoring and maintenance of these appliances further ensure optimal performance and minimal leakage.

	
Example of Water Efficient Appliances Usage (Karshi State University)	
	
Example of Water Efficient Appliances Usage (Karshi State University)	

Consumption of treated water

Karshi State University ensures the extensive consumption of treated and purified water across all its campuses as part of its Water Conservation and Recycling Programs. The university's OSMOS Water Recycling and Purification System, installed in 2023, serves as the main source of treated potable and non-potable water.

Water from the 15 artesian wells is purified through multi-stage filtration using OSMOS technology. The purified water is supplied to academic buildings, laboratories, administrative offices, dormitories, and campus cafeterias, ensuring that students and staff consume safe, high-quality drinking water every day.

In addition to drinking purposes, the treated water is also distributed for domestic use, including restrooms, cleaning systems, and campus facilities. The total processing capacity of the ASMOS station is 300 m³ per hour, covering the university's internal water needs. Furthermore, KSU uses non-drinking treated water for irrigation of green areas and technical maintenance, reducing dependence on fresh water and external suppliers. Twenty-three water reservoirs with capacities ranging from 300 to 1000 m³ ensure stable storage and distribution throughout the year.

This integrated approach demonstrates KSU's strong commitment to sustainable water management, aligning with SDG 6 (Clean Water and Sanitation).

	
Water purification and recycling station	Water tank
	
Automatic watering of green zones	

Water pollution control in campus area

Karshi State University (KSU) ensures strict control over water quality and pollution prevention across its campus. Although the university does not have any natural water bodies such as lakes or rivers, it operates a comprehensive closed water management system consisting of 23 reservoirs. All reservoirs are top-closed, which prevents contamination from external sources such as dust, debris, or rainwater runoff.

The university's main water supply comes from 15 artesian wells, where water is purified using the advanced "OSMOS" technology. This system converts groundwater into clean, drinkable water while meeting sanitary and ecological standards. The entire ASMOS purification process and water storage system are monitored and maintained by four qualified specialists, who regularly test and control water quality to prevent any form of pollution or bacterial contamination.

In addition, wastewater from campus facilities is safely channeled through the municipal sewage system, ensuring no direct discharge into the environment. Regular inspections, maintenance, and technical monitoring guarantee the continuous quality and safety of water distributed across campus.

Water Management through the utilization of Information and Communication Technology

Karshi State University applies Information and Communication Technology (ICT) to manage, monitor, and evaluate all stages of its water management system. The processes of extracting water from artesian wells, purification, quality control, and tracking water supply and consumption are automated and digitally supervised by the ASMOS Water Purification and Recycling Station Laboratory, located on the university campus.

All 15 artesian wells and 23 water reservoirs are equipped with digital sensors that transmit real-time data on water levels, pressure, and pump performance to the ASMOS control system. The water quality parameters are automatically tested, recorded, and stored in a centralized digital database.

Across the campus, smart water meters are installed in academic buildings, dormitories, laboratories, and administrative offices. These meters automatically collect and transmit data on water consumption to the ASMOS system, where the information is analyzed to detect irregularities, identify leaks, and improve efficiency.

The integration of ICT tools enables the university to optimize water usage, prevent waste, and ensure the efficient operation of the ASMOS system, which processes up to 300 m³ of water per hour.



Smart water meters



ASMOS Water Purification and Recycling Station

Transportation

The total number of vehicles

No.	Vehicle	Total Number
1	Car managed by the university	4
2	Cars entering the university	16
3	Motorcycles entering the university	7
	Total	25

$$5.4 = 25 / 24219 \text{ (population)} = 0.001$$

Karshi State University covers a total campus area of 319107 m², where private cars and motorcycles are not allowed to enter or operate within the territory. Only university-owned and managed vehicles are permitted for official and operational purposes. Currently, the university operates 4 cars and 7 electric motorcycles that are used by administrative and technical units for daily activities.

The campus promotes sustainable and eco-friendly mobility by limiting motorized transport and encouraging the use of bicycles, which can freely cross through the university territory. No private or commercial shuttle services operate on campus, maintaining a clean, safe, and low-emission environment consistent with the university's sustainability policy.

Shuttle Services

Karshi State University provides sustainable and efficient shuttle services to support both internal campus mobility and long-distance university activities. The university operates a 36-seat bus, primarily used for the university football team's travel to games, as well as for student academic and cultural trips to long-distance destinations. Within the campus territory, which covers 319107 m², the university operates two 10-seat electric golf shuttles for daily internal transportation. These shuttles are used by staff, visitors, and students to move between administrative buildings, faculties, and service areas.

Private vehicles are not allowed to circulate within the campus; therefore, these shuttle services provide an essential, eco-friendly mobility solution, contributing to reduced emissions, improved accessibility, and a sustainable transportation environment in line with the university's green policy.



Example of Shuttle Services (Karshi State University)



Example of Shuttle Services (Karshi State University)

Zero Emission Vehicles (ZEV) availability on campus

Karshi State University promotes sustainable, low-emission transportation within its 319107 m² campus by fully prohibiting the entry of private diesel and gasoline vehicles. Only university-owned and electric-powered vehicles are allowed for operational and administrative purposes.

The university currently operates 7 electric motorcycles used by technical units for daily maintenance and service tasks, and two 10-seat electric golf shuttles that provide internal mobility for staff, visitors, and students between main administrative and academic buildings.

Bicycles are also widely used by students and staff as the main zero-emission mode of individual transport. Dedicated bicycle paths connect the key campus facilities, supporting KSU's zero-emission and pedestrian-friendly mobility policy.

Additionally, the university plans to expand its electric transport infrastructure by introducing a smart e-scooter sharing system through a partnership with a local technology company.

These combined initiatives significantly reduce CO₂ emissions, promote sustainable mobility, and strengthen the university’s environmental commitment to a green and pollution-free campus.



Ratio of Parking Area to Total Campus Area

Total main campus area: 319107 m²

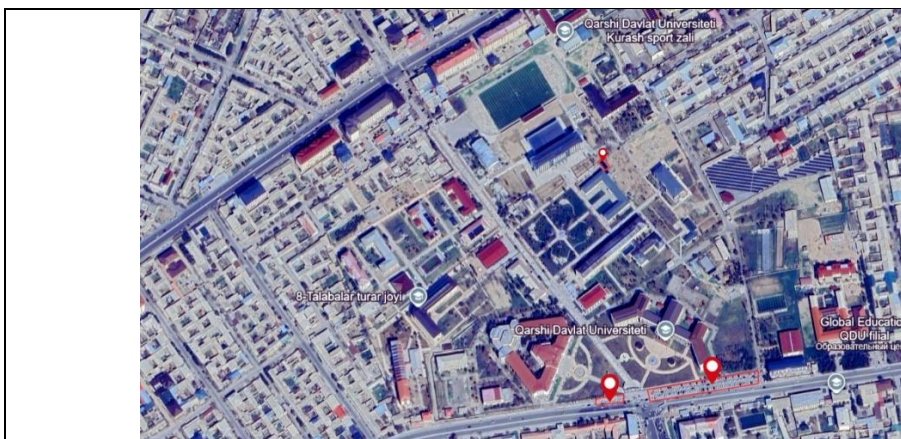
Total parking area = 5180m²

Ratio = 1.62

Karshi State University’s main campus occupies a total area of 319107 m², and the designated parking area covers 5000 m², resulting in a parking area ratio of approximately 1.62% of the total campus area. Also, there is a small 180 m² parking area within the campus for administrative staff, while maintaining the sustainable and pedestrian-friendly emphasis.

The campus territory is fully enclosed by walls, and no parking spaces are provided inside the campus grounds to maintain a pedestrian-friendly and environmentally sustainable environment. Instead, a parking area is located near the main entrance, where staff, students, and visitors can park their vehicles on a daily basis.

This parking policy supports the university’s commitment to reducing traffic congestion, minimizing carbon emissions, and promoting eco-friendly mobility practices within the campus.



Example of Ratio of Parking Area to Total Campus Area (Karshi State University)

Program to limit or decrease the parking area on campus

In line with Karshi State University's commitment to environmental sustainability and carbon reduction, the university has completely prohibited motor vehicle entry into the campus area, except for emergency situations. As part of this policy, the previously existing parking area of approximately 1200 m² within the campus territory has been entirely closed.

Prior to this change, vehicle movements and idling in the parking area generated an estimated 1.2 tons of CO₂ emissions per year, which is equivalent to the annual CO₂ absorption capacity of around 50 mature trees. The elimination of this parking space has therefore contributed significantly to reducing the university's carbon footprint and improving air quality within the campus.

This initiative also supports the university's broader strategy to promote pedestrian and bicycle-friendly mobility, enhance green campus spaces, and minimize noise and air pollution, creating a more sustainable and healthy learning environment.



Eliminating car parking zone within the campus (Karshi State University)

Number of Transportation Initiatives to Decrease Private Vehicles on Campus

Karshi State University has implemented several sustainable transportation initiatives aimed at reducing the use of private motor vehicles and promoting environmentally friendly mobility within its 319107 m² campus area.

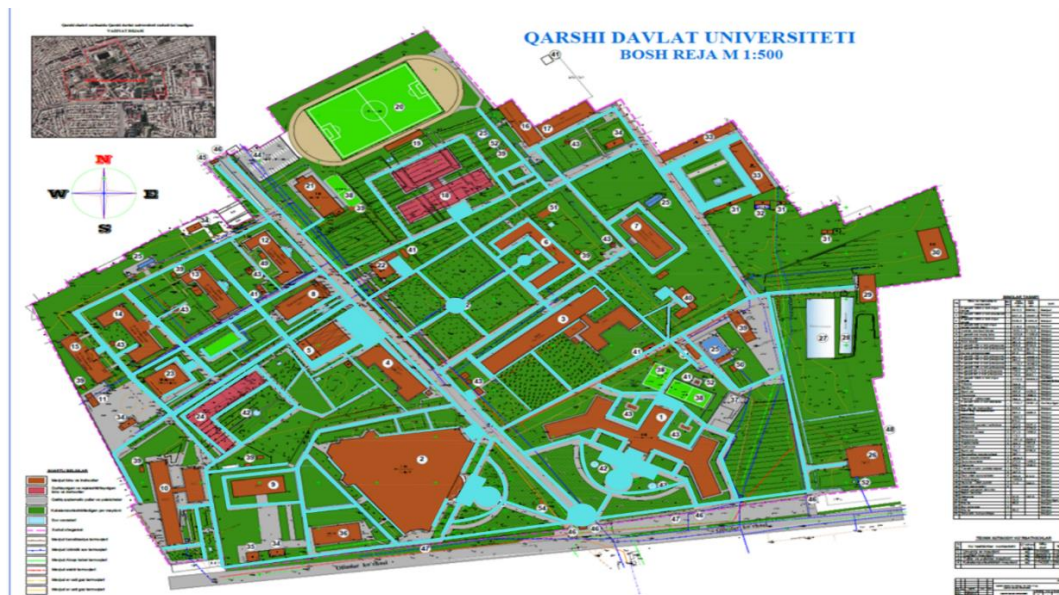
Motor vehicle entry into the campus is completely prohibited, except for emergency vehicles, and the internal parking areas have been closed. To provide sustainable alternatives, the university has developed a designated bicycle path that allows safe and convenient cycling across the campus. Bicycles are the primary mode of individual transportation within the campus, supporting the university's commitment to a zero-emission transport environment.

In addition, the university operates two 10-seat electric golf shuttles for daily staff and visitor transport and 7 electric motorcycles for technical operations. These measures have significantly reduced CO₂ emissions, minimized noise pollution, and enhanced the overall sustainability of campus mobility.

	
Designated part of a roadway marked for bicycles (Karshi State University)	Designated part of a roadway marked for bicycles (Karshi State University)

Pedestrian Path Policy on Campus

Karshi State University (KSU) has adopted a comprehensive Pedestrian Path Policy to ensure safety, accessibility, and sustainability across its 319107 m² campus area. The entire campus is designed as a walkable zone, where students, staff, and visitors move primarily on foot, by bicycle, or e-scooter. Dedicated pedestrian lanes and bicycle paths connect all key facilities, including academic buildings, dormitories, laboratories, libraries, etc. The university territory is closed to private diesel and gasoline vehicles, which makes the campus territory a safe and pollution-free area for pedestrians and cyclists. Only emergency and service vehicles are granted access when necessary. The total length of sidewalks on the main KSU campus is around **8000 meters**.



Transportation through the utilization of Information and Communication Technology

Karshi State University (KSU) is integrating Information and Communication Technology (ICT) into its sustainable transportation development strategy. The university's campus, which is closed to private diesel and gasoline vehicles, promotes walking, cycling, and the use of electric mobility solutions as the main modes of transportation.

As part of its ongoing efforts to expand low-emission transport options, KSU plans to sign a partnership agreement with a local technology company to introduce a smart e-scooter sharing system on campus. Under this project, 20 electric scooters will be made available to students and staff for short-distance travel within the campus through a mobile application-based rental platform.

The project is currently in the planning phase (2025) and will be implemented in cooperation with the KSU Information Technology Center, Sustainability Committee, and the partner company upon final agreement.



Examples of e-scooters



Example

Education and Research

Number of Courses/Subjects Related to Sustainability Offered

Total number of courses with sustainability embedded for courses running: **169**
 Karshi State University demonstrates a strong institutional commitment to integrating environmental awareness and sustainability principles across its academic programs. The university offers a total of 169 courses that incorporate topics related to sustainability, environmental protection, renewable energy, biotechnology, and social responsibility.

These courses span multiple faculties — including Engineering and Technology, Chemistry, Geography and Earth Sciences, Physics, Economics, Medicine and Health, and Pedagogy — ensuring that sustainability concepts are embedded in both scientific and socio-economic disciplines.

In the Engineering and Technology fields, subjects such as Alternative Energy and Nature Protection, Energy Efficient Technologies, Industrial Ecology and Safety of Life Activities, Bioengineering, Ecobiotechnology, and Heat

Engineering and Hydropower provide students with practical knowledge on renewable energy systems, environmental engineering, and sustainable industrial development.

Within Chemistry and Biology, key sustainability-oriented courses such as Chemical Ecology and Environmental Protection, Biochemistry of Agricultural Products, and Agrochemical Services in Agriculture emphasize eco-friendly production, waste reduction, and the application of green chemistry principles. The Geography and Earth Sciences department includes a wide range of environmentally focused courses like Applied Ecology, Geoecology and Landscape Ecology, Environmental Impact Assessment, Hydroecology and Geoecology, and Geoinformation Technologies in Ecology, enabling students to analyze and manage natural systems responsibly.

Courses in Economics and Management, such as Green Economy, Energy Management, and Organization and Management of Greenhouse Economy, link sustainable development with business innovation and economic planning. In Medicine and Health Sciences, subjects such as Ecological Physiology, Fundamentals of Health Preservation, and Health and Life Safety promote understanding of the interconnection between human health and environmental well-being.

Additionally, Pedagogy and Education programs include courses like Methods of Teaching Ecological Sciences and Developmental Psychology, contributing to the preparation of educators who can promote sustainability awareness among future generations.

Through these 169 sustainability-related courses, Karshi State University aligns its academic offerings with the UN Sustainable Development Goals (SDGs) — particularly SDG 4 (Quality Education), SDG 7 (Affordable and Clean Energy), SDG 13 (Climate Action), and SDG 15 (Life on Land) — ensuring that students gain the knowledge and skills needed to contribute effectively to sustainable development at local, national, and global levels.

Total Number of Courses/Subjects Offered

Karshi State University maintains a comprehensive and diversified academic portfolio designed to provide students with broad educational opportunities across a wide range of disciplines. The university continuously develops and updates its curriculum in accordance with national higher education standards, labor market requirements, and international academic quality benchmarks. This commitment ensures that students acquire relevant knowledge, practical competencies, and professional skills necessary for success in a rapidly changing global environment.

During the last three academic years, the university has consistently offered a substantial number of courses and subjects, reflecting its strong academic capacity and commitment to high-quality education:

2023: 873 courses offered

2024: 846 courses offered

2025: 841 courses offered

The data demonstrate the university's ability to sustain a stable and balanced curriculum structure while continuously improving the quality and relevance of educational programs. The relatively high number of courses offered each year indicates a broad spectrum of learning opportunities available to students at undergraduate, graduate, and doctoral levels. The increase observed in 2023 reflects the expansion of academic offerings and the introduction of new educational components aimed at strengthening interdisciplinary learning. The slight decrease in the number of courses in 2024 and 2025 does not indicate a reduction in academic activity; rather, it reflects a strategic curriculum optimization process undertaken to improve program efficiency, eliminate content duplication, and align courses with updated educational standards and competency-based learning outcomes. The university's course offerings cover diverse fields of study, including humanities, social sciences, natural sciences, education, engineering, information technologies, economics, agriculture, environmental studies, and other specialized disciplines. This multidisciplinary approach promotes intellectual development, innovation, and cross-sector collaboration while supporting the integration of sustainability principles and modern teaching methodologies throughout academic programs.

Furthermore, Karshi State University regularly reviews and modernizes its curricula through collaboration with industry representatives, employers, academic experts, and international partners. Such efforts contribute to enhancing educational quality, strengthening graduate employability, and ensuring compliance with national accreditation requirements as well as international best practices in higher education.

Overall, the consistently high number of courses offered during the 2023–2025 period demonstrates the university's strong commitment to academic excellence, continuous improvement, and the provision of accessible, diverse, and globally competitive educational opportunities for its students.

Total number of study program related to sustainability offered

Academic Programs by Faculty Karshi State University			
No	Faculty	Study Programs	Sustainability & Green Development Relevance
1	 Pedagogy	- Primary Education - Special Pedagogy: Speech Therapy (Logopedics) - Preschool Education - Psychology	 Promotes inclusive education, social sustainability, community well-being, and lifelong learning.
2	 Mathematics and Computer Sciences	- Mathematics - Software Engineering - Information Systems and Technologies - Artificial Intelligence - Mechanics and Mathematical Modeling	 Supports digital transformation, smart technologies, data-driven decision-making, and sustainable innovation.
3	 Economics	- Economics - Finance and Financial Technologies - Banking - Accounting - Marketing - Tourism and Hospitality	 Contributes to sustainable economic development, green finance, responsible business practices, and sustainable tourism.
4	 Physics	- Physics - Electronics and Instrumentation - Power Engineering - Light Industry Engineering - Renewable Energy Sources	 Advances clean energy technologies, energy efficiency, sustainable industrial processes, and climate action initiatives.
5	 Chemistry and Biology	- Chemistry - Biology - Microbiology - Biotechnology	 Supports environmental protection, biotechnology innovation, resource management, and ecological sustainability.
6	 Medicine	- General Medicine - Pediatrics	 Enhances public health, healthcare sustainability, and community resilience.
7	 Geography and Agronomy	- Plant Protection and Quarantine - Geography - Agrochemistry and Soil Science - Ecology and Environmental Protection - Soil Science	 Directly contributes to biodiversity conservation, sustainable agriculture, climate adaptation, environmental monitoring, and ecosystem management.
		 Total Faculties 7	 Total Study Programs 31

Total Research Funds Dedicated to Sustainability Research

Karshi State University (KSU) annually supports both fundamental and applied research projects across various scientific fields, including mathematics, physics, chemistry, and biological sciences. The total university research portfolio for the 2023–2025 period includes both sustainability-focused and fundamental innovation-oriented projects such as:

- *“Development of a cultivation technology for edible and medicinal mushrooms distributed in the Kashkadarya region under artificial nutrient conditions”* - 981 920 000 UZS
- *“Development of nanostructured thin-film technology based on silicide metal and semiconductor compounds for use in energy-saving technologies”* - 1 912 049 000 UZS
- *“Synthesis and study of nanoscale structures based on silicon and silicon oxide”* - 640 880 000 UZS
- *“Cubic stochastic operators: dynamics and applications”* — 1 287 275 800 UZS
- *“Study of branching processes with Markov chains”* — 1 410 730 000 UZS

Total sustainability-related research funding (last 3 years):
 2023 — 1 403 660 563 UZS (\$116 972)
 2024 — 2 439 188 737 UZS (\$202 275)
 2025 — 2 390 005 500 UZS (\$198 196)

Average annual sustainability research funding (2023–2025):
 ≈ 2 077 618 267 UZS (\$172 291)

Number of lecturers and researchers on campus

Faculty	Lecturers and researchers
Philology	56
Physics	33
Geography and agronomy	51
Economics	45
Chemistry and biology	78
Mathematics and computer science	69
Pedagogy	85
Arts	35
Sport	37
History	82
Medicine	109
Foreign Languages	132
TOTAL:	812

Karshi State University employs a strong and diverse team of 812 lecturers and researchers across its faculties, ensuring high-quality education, innovative research, and active engagement in sustainable development initiatives.

Academic staff at the university include professors, associate professors, senior lecturers, and researchers who are actively involved in both teaching and research activities aligned with national and international standards. Their combined expertise supports the university's mission to integrate sustainability into education, science, and innovation.

The distribution of lecturers and researchers across faculties reflects a balanced and multidisciplinary academic environment:

- Philology – 56 academic staff engaged in linguistics, communication, and cultural studies.
- Physics – 33 staff specializing in energy systems, renewable energy, and applied physics.
- Geography and Agronomy – 51 experts contributing to environmental studies, agriculture, and sustainable land management.
- Economics – 45 lecturers advancing research in green economy, sustainable finance, and business management.
- Chemistry and Biology – 78 researchers leading scientific work in biotechnology, ecology, and chemical sustainability.
- Mathematics and Computer Science – 69 academic staff focusing on data analysis, AI, and mathematical modeling for sustainable solutions.

- Pedagogy – 85 educators dedicated to sustainability education and teacher training.
- Arts – 35 faculty members promoting creative and cultural sustainability.
- Sport – 37 professionals advancing health, physical education, and sustainable well-being.
- History – 82 scholars preserving cultural heritage and studying historical aspects of sustainability.
- Medicine – 109 lecturers and researchers improving public health and sustainable medical practices.
- Foreign Languages – 132 lecturers supporting international collaboration, sustainability communication, and global competence.

In total, 812 lecturers and researchers contribute to Karshi State University's academic and scientific excellence. Many of them are involved in research projects, international collaborations, and publications focused on environmental protection, sustainable energy, and social innovation — supporting the university's strategic objectives and alignment with the UN Sustainable Development Goals (SDGs), particularly SDG 4 (Quality Education), SDG 9 (Industry, Innovation and Infrastructure), and SDG 13 (Climate Action).

Number of scholarly publications on sustainability

A total scholarly publication in Google Scholars in 2024 is 745 publications

A total scholarly publication in Scopus data base is 267 publications

Karshi State University actively promotes research and publication in sustainability-related fields, encouraging faculty members and researchers to contribute to global discussions on environmental, social, and economic sustainability. The university prioritizes interdisciplinary research that addresses current sustainability challenges in Uzbekistan and beyond.

In the academic year 2024, a total of 745 scholarly publications were indexed in Google Scholar, and 267 publications were listed in the Scopus database, reflecting the university's strong engagement in research activities.

These publications cover a wide range of sustainability-related topics, including:

- Renewable and clean energy technologies
- Environmental protection and pollution reduction
- Sustainable agriculture and water resource management
- Climate change adaptation and mitigation strategies
- Green economy and sustainable business development
- Education for sustainable development and social responsibility
- Ecological linguistics and communication of sustainability issues

Karshi State University continuously encourages academic staff to publish in high-impact journals, participate in international research networks, and apply for sustainability-focused grants. The university's growing research output supports the achievement of several UN Sustainable Development Goals (SDGs), particularly SDG 4 (Quality Education), SDG 7 (Affordable and Clean Energy), SDG 13 (Climate Action), and SDG 15 (Life on Land).

Through its active scholarly output, Karshi State University strengthens its reputation as a leading institution fostering sustainable research, innovation, and education in the region.

Total scholarly publication in one-year period/ Total lecturers and researchers in one-year period

= 1012/812

= 1.2

Number of Events Related to Sustainability

Between **2023-2024, 2024-2025 and 2025-2026 (study years)**, Karshi State University (KSU) has actively organized and participated in numerous events and educational programs related to sustainability, environmental protection, and ecological awareness.

University students have taken part in community service initiatives such as *“Clean City,” “Ecological Awareness,” “Green Space,” and “Nature Conservation is a Human Duty.”*

Over this period, more than **15 environmental improvement campaigns** were conducted across different districts of Karshi and the Kashkadarya region. The Departments of **Geography and Agronomy, Chemistry and Biology, and Ecology** have led waste collection drives, environmental seminars, and large-scale tree-planting actions as part of the *“Green Space”* national project.

In addition, KSU launched the **“Eko-Innovation – 2025”** competition, dedicated to developing innovative solutions to environmental challenges. The competition focuses on three directions:

1. Environmental protection, waste recycling, and climate change mitigation;
2. Renewable and energy-saving technologies;
3. Innovative ecological devices and sustainable materials.

Undergraduate, graduate, and doctoral students aged 18–35 participate individually or in teams, with winners receiving monetary awards of **6,000,000 / 4,000,000 / 2,000,000 UZS**.

Throughout 2024–2025, the university organized and supported **over 30 sustainability-related events**, including:

- The international **Scientific Dialogue on Soil Science** with Professor B.S. Panwar (India), focusing on soil pollution, risk assessment, and phytoremediation methods;
- The participation of KSU biology student **Husnora Bozorova** in the “*Green Future*” youth camp with her eco-startup “*Eco-Protection*”;
- The “**Eco-Tourism Zakovat**” intellectual quiz for students of Ecology and Environmental Protection;
- The “*Ecology Experts*” quiz, dedicated to the Year of Environmental Protection and Green Economy;
- Environmental awareness events for **World Wildlife Day (3 March)**, **Zero Waste Day (30 March)**, **Bird Day (1 April)**, and **Earth Day (22 April)**;
- The “*Ziyolilar Bog‘i*” (“Scholars’ Garden”) tree-planting campaign within the national “*Green Space*” initiative, resulting in the planting of **over 1,000 trees** in Muborak district;
- Regional meetings of the “*Young Ecologists*” Movement and the Youth Tourism Ambassadors Council, focusing on ecological responsibility and sustainable lifestyles.

A structured system for encouraging and rewarding students’ environmental and social engagement has been established through the **University’s Youth Affairs Department**.

These activities complement KSU’s broader sustainability efforts, including:

- The “*3R: Reduce, Reuse, Recycle*” program in partnership with *Eco Trans*;
- The “*Eco Week*” campaign and thematic seminars such as “*Save Nature*,” “*Ecological Culture – Sustainable Future*,” and “*Green Uzbekistan*”;
- The *Greenhouse Gas Reduction Program* promoting renewable energy, green areas, and sustainable mobility on campus.

Through these initiatives, *Karshi State University* continues to strengthen environmental consciousness and practical engagement among students and staff, contributing directly to the **UN Sustainable Development Goals (SDG 4, 7, 9, 11, 12, 13, and 15)**.

Total number of sustainability/environment-related middle- and large-scale events:

- **2023-2024: 25**
- **2024-2025: 24**

• 2025-2026 : 22

Average per year $\approx$ 23 events including conferences, campaigns, workshops, competitions, and training sessions.

Number of activities organized by student organizations related to sustainability

Karshi State University (KSU) actively supports student-led initiatives that promote sustainability, environmental protection, and ecological awareness. Through the efforts of the **KSU Youth Union** and student volunteer teams such as “*Young Eco-Patrol*” (*Yosh Ekopatrul*), multiple sustainability-oriented events are held each academic year in cooperation with the faculties and the Department for Youth Affairs.

Between **2024, 2025 and 2026, 35 major sustainability-related activities** were organized directly by student organizations, covering environmental cleanups, eco-intellectual games, and innovative youth projects.

These activities were fully initiated and implemented by students under the coordination of the **KSU Youth Union** and supported by faculty mentors. The events strengthened students’ environmental leadership skills and their contribution to the **UN Sustainable Development Goals (SDG 4, 11, 12, 13, and 15)**.

Total Number of Student-Led Sustainability Activities (per year):

2024: 12

2025: 13

2026: 10

Number of cultural activities on campus

The Department of Spiritual and Educational Activities Organization, supervised by the First Vice-Rector for Youth Issues and Spiritual-Educational Affairs Oybek Kuziev, is responsible for the spiritual and cultural life of university students and employees. The specialists of the department, in collaboration with the tutors of study groups, student activists of the KSU Youth Union, Eco-Patrol volunteers, professors and other university employees, held more than 100 cultural and educational events at Karshi State University in the 2024-2025 academic year, including concerts, competitions, public discussions, theater performances, exhibitions and other events in university dormitories, faculties, the Memorial Museum of the Memorial Museum of Repression Victims, which is under the responsibility of Karshi State University, and on the university campus. Some of the events include "Student Spring", "Language - the Mirror of the Nation", "Book Reading Week", "National Values Festival", "Spiritual Night", and "Theater Week", among others.



Examples of **cultural activities** at **Karshi State University**

Total number of graduates with green jobs

Academic Year	Faculty	Total Graduates	Graduates with Green Jobs
	Faculty of Economics	195	25
	Faculty of Philology	615	38
	Faculty of Pedagogy	1664	120

2024/2025	Faculty of History	732	22
	Faculty of Foreign Languages	443	28
	Faculty of Geography and Agronomy	183	100
	Faculty of Art Studies	276	20
	Faculty of Mathematics and Computer Science	584	38
	Faculty of Physics	131	16
	Faculty of Chemistry and Biology	568	130
	Faculty of Sports	596	12
	Faculty of Joint Education	65	8
	TOTAL:	6052	557

Availability of unit(s) or office(s) that coordinate sustainability on campus

In accordance with the resolution of the Academic Council of Karshi State University (Meeting No. 5, April 3, 2025), the university officially established the Sustainability Committee (“Barqarorlik qo‘mitasi”) as a permanent coordinating body responsible for promoting and monitoring sustainability policies, activities, and performance indicators across all university units.

This decision was based on the directive of the Ministry of Higher Education, Science, and Innovation of the Republic of Uzbekistan (Decree No. 4/1, December 27, 2024), which requires higher education institutions to enhance infrastructure efficiency, energy conservation, water management, waste handling, and the formation of a “green” culture on campus.

The Sustainability Committee operates under the direct supervision of the Rector and reports annually to the Academic Council. Its main tasks include:

- Coordinating all university initiatives related to sustainable development and SDG implementation;
- Preparing annual sustainability reports (including for UI GreenMetric World University Ranking);
- Monitoring energy, water, and waste indicators through cooperation with the respective departments;
- Organizing awareness campaigns, student engagement activities, and sustainability-related research projects;
- Ensuring transparent data management and international collaboration on sustainability.

Committee Structure:

- Chairperson: Dilmurod Nabiyeu - Rector of Karshi State University
- Executive Directors:
 - Ilhom Bekpulatov - Vice Rector for Research and Innovation
 - Abdulhamid Kholmurodov - Vice Rector for Academic Affairs
 - Oybek Kuziyev - First Vice Rector for Youth and Spiritual-Educational Affairs
 - Khurshed Djurayev - Vice Rector for Finance and Economics
- Executive Secretary: Farrukh Aminov – International Rankings Specialist

Other members include heads of departments and offices responsible for international relations, finance, HR, academic registry, environmental activities, gender and inclusion, anti-corruption, student leadership, communications, incubation center, and the deans of key faculties (Geography and Agronomy, Chemistry and Biology, Medicine, Engineering, Psychology, etc.).

Governance and Digitalization

University budget for sustainability effort (in US Dollars)



Karshi State University demonstrates a long-term commitment to sustainable development by consistently allocating a substantial portion of its financial resources to sustainability-related activities, environmental protection, renewable

energy, social welfare, sustainable infrastructure, research, and educational quality. During the period **2023–2025**, the university's total institutional budget amounted to approximately **USD 60.68 million**, of which approximately **USD 18.20 million (30%)** was dedicated to sustainability initiatives and sustainable campus development.

The university's sustainability investments have shown a continuous commitment over the three-year period:

2023: Total Budget – USD 21.60 million; Sustainability Budget – USD 6.48 million (30%)

2024: Total Budget – USD 20.53 million; Sustainability Budget – USD 6.16 million (30%)

2025: Total Budget – USD 18.55 million; Sustainability Budget – USD 5.56 million (30%)

The sustainability budget was strategically distributed across several priority areas.

Sustainable infrastructure and green campus development. A significant share of the sustainability budget was invested in construction, reconstruction, renovation, and modernization projects aimed at improving campus sustainability, resource efficiency, and environmental performance. These investments support green buildings, utility optimization, campus greening initiatives, and sustainable infrastructure development.

Renewable energy and climate action. Karshi State University has expanded its renewable energy initiatives through solar photovoltaic systems. In 2025 alone, the university generated **993,610 kWh** of electricity for campus consumption and supplied **797,283 kWh** of clean electricity to the national grid. Revenue generated from renewable energy sales was reinvested into sustainability-related activities, supporting the university's climate action goals and reducing greenhouse gas emissions.

Social sustainability and community well-being. The university continuously invests in staff welfare, student support programs, social assistance, and inclusive campus development. In 2025, more than **USD 2.4 million** was allocated to social support and incentive programs, benefiting employees, students, and socially vulnerable groups.

Sustainable education, research, and innovation. Financial resources were allocated to research projects, laboratory modernization, digital transformation, and innovative teaching and learning initiatives. These investments strengthen the university's capacity to contribute to sustainable solutions through education, research, and technological advancement.

Sustainable procurement and resource management. The university promotes environmentally responsible procurement practices by investing in

energy-efficient equipment, laboratory facilities, information technologies, educational resources, and resource-saving campus operations. Through these targeted investments, Karshi State University continues to strengthen its environmental stewardship, social responsibility, and institutional resilience. The university regularly evaluates its sustainability expenditures to improve operational efficiency, support climate action, and create a sustainable educational environment for future generations.

These financial commitments directly contribute to the achievement of SDG 4 (Quality Education), SDG 7 (Affordable and Clean Energy), SDG 8 (Decent Work and Economic Growth), SDG 9 (Industry, Innovation and Infrastructure), SDG 11 (Sustainable Cities and Communities), SDG 12 (Responsible Consumption and Production), SDG 13 (Climate Action), and SDG 17 (Partnerships for the Goals).

Sustainability Report



Examples of sustainability report (Karshi State University)

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Committee Structure:

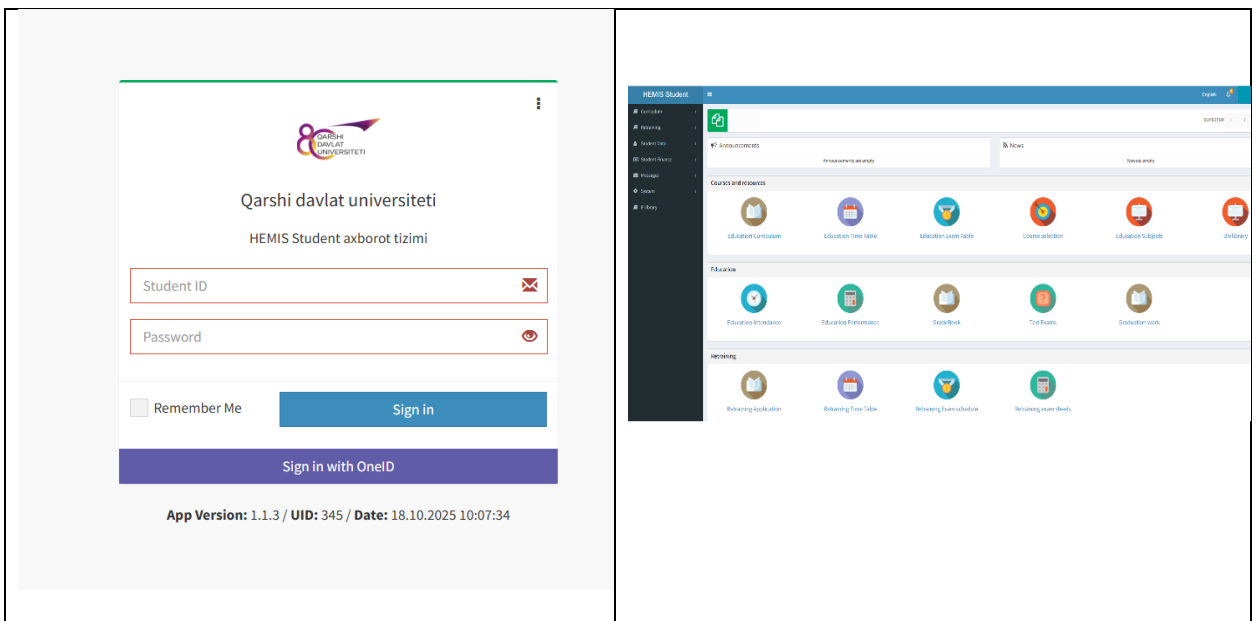
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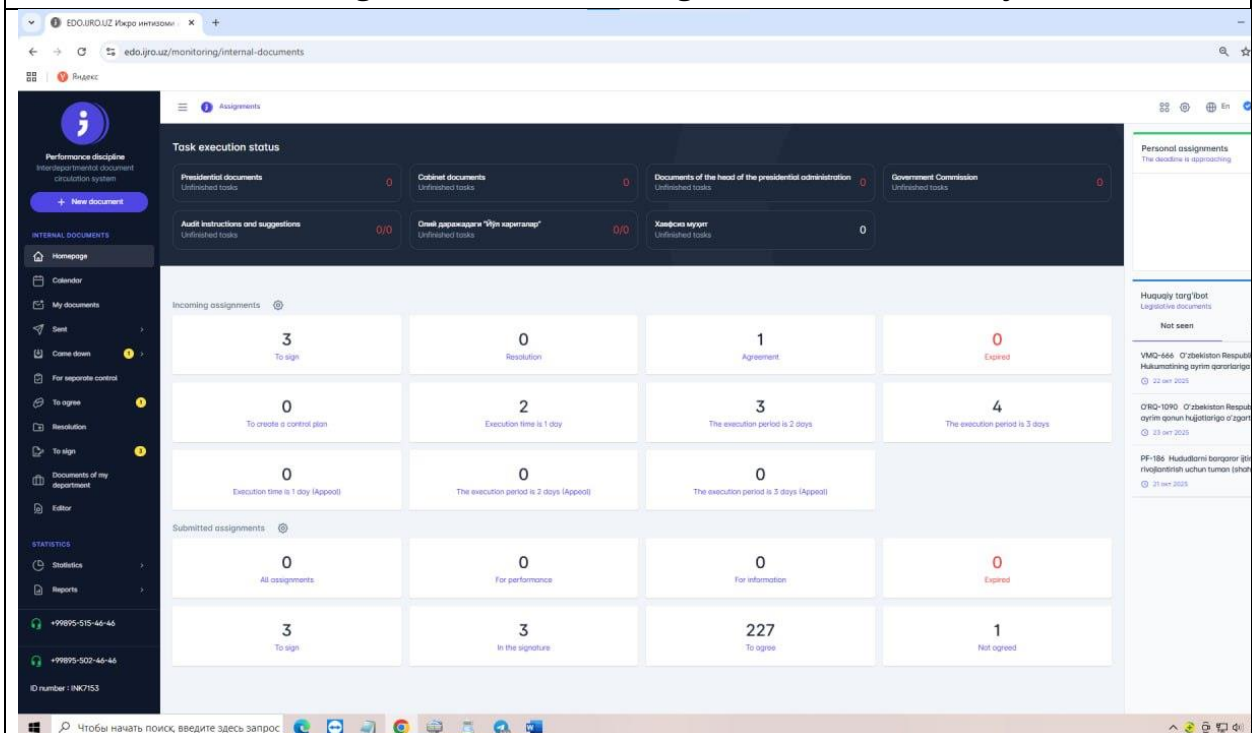
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<https://sdg.qarshidu.uz/about/sdg-committee/>

Implementation of sustainability programs through the utilization of Information and Communication Technology (ICT) aligned with UI GreenMetric criteria



HEMIS – Higher Education Management Information System



Edu-ijro – electronic management and task monitoring system

control of institutional performance in accordance with national and international standards.

ICT tools are used in:

- **Education management:** distance and blended learning platforms (*HEMIS* and *Moodle*) used in all faculties for online teaching, student attendance tracking, and digital evaluation.
- **Research and innovation:** online submission of research projects, electronic coordination of laboratory activities, and reporting for international rankings (*QS*, *THE*, *UI GreenMetric*).
- **Providing students online services** (*My Qarshidu*)
- **Sustainability programs:** monitoring of environmental and energy-saving projects through digital data collection within the AI HUB.
- **Administration:** use of electronic document management (*E-Xat*), online registration of academic workload, and digital reporting to the Rector's Office (*Edu-Ijro*).

Key ICT Tools Used in University Governance

- **Edu-ijro:** The main **electronic management system** of the university that coordinates and monitors all governance processes – from academic planning to project execution and sustainability program control. It allows the Rector's Office to track tasks, deadlines, and departmental performance digitally.
- **E-Xat:** The **electronic document circulation platform**, used for secure, paperless correspondence within the university. It ensures the efficient exchange of official documents, digital signatures, and communication with ministries and partner institutions.
- **HEMIS and Moodle:** Digital learning and communication tools supporting online education and collaborative research.
- **My Qarshidu:** Digital service center for providing students with all required services in a paperless and digital way.

All activities are coordinated through the university's IT Center and the Quality Assurance Center.

Planning

The university's development programs, including the **AI HUB Scientific and Innovation Center** and **Sustainability Committee**, were planned using digital analytical tools and international standards (ITU recommendations, AI ethics, and data security).

Planning documents and performance indicators are stored electronically and regularly updated through internal platforms.

Implementation

KSU implemented integrated systems to manage academic, administrative, and research processes:

- electronic university platform for student data and finance;
- e-learning systems supporting distance and hybrid education;
- web-based tools for project management, startup registration (*Clean Water Project, SolarGuard*), and event reporting (environmental, research, and community initiatives).

Through these systems, all sustainability-related programs (6.5–6.24) are registered, monitored, and summarized digitally before submission to national and international databases.

Monitoring and Evaluation

All internal reports, sustainability indicators, and ranking-related data are submitted and consolidated through **Edu-ijro** and **E-Xat**, which connect university departments under a single electronic workflow. The **Quality Assurance Center** and **IT Center** use these platforms to analyze institutional efficiency and prepare reports for the Rector’s Office and the Ministry of Higher Education, Science and Innovation.

fully digital workflow in governance and sustainability management. These platforms ensure transparent decision-making, reduce administrative delays, and support effective

Through the integration of **Edu-ijro** and **E-Xat**, Karshi State University has achieved a monitoring of academic, financial, and research performance.

All sustainability-related projects (AI HUB, Clean Water Project, SolarGuard, community service initiatives, and research funding) are tracked and evaluated through digital reporting systems, confirming the university’s commitment to ICT-driven governance.

Policy on advanced digital technologies (AI/IoT, etc.) to support decision-making, efficiency, and service delivery

Example:

N o	Initiative	Policy Basis	Implementation Scope
1.	“Hemis”	Digital Transformation Strategy, Ministry regulations	Student records, course registration, grading attendance, academic reporting

The image is a collage of various official documents and forms, demonstrating the application of electronic document management systems. The documents include:

- University forms from Qashqadaryo Viloyati Davlat Universiteti (Qashqadaryo Region State University) for student registration and course selection.
- A certificate of academic integrity from the same university.
- A thesis or dissertation document with a title in Russian: "Создание, циркуляция, одобрение и мониторинг официальных документов и административных решений" (Creation, circulation, approval and monitoring of official documents and administrative decisions).
- A document titled "Strikeplagiarism" company, likely related to plagiarism detection.
- A document titled "Academic integrity" with a list of references.
- A document titled "Edo.ijro.uz" (Electronic document management).
- A document titled "Electronic document management" with a list of references.
- A document titled "Creation, circulation, approval and monitoring of official documents and administrative decisions" with a list of references.

The documents are arranged in a grid-like fashion, with some overlapping, creating a sense of a large, organized digital archive.

Qiziqi faxrlar avtorlarida
ish yuritish va xohish hujjatlar bilan ishlash bo'yicha
VORIQNOMA



Qiziqi - 2024 y

MUNDARIJA

1. Umumiy qoidalar	3
2. Hujjatlar tayyorlash va rasmiylashtirish	3
3. Hujjatlar tarqatish va saqlash	3
4. Hujjatlar tayyorlash va rasmiylashtirish (ammlar)	4
4.1. O'zbekiston Respublikasi Prezidenti fermanlari va qararlari ishlarini rasmiylashtirish	4
4.2. O'zbekiston Respublikasi Vazirlar Mahkamasining fermanlari va qararlari ishlarini rasmiylashtirish	9
4.3. Ustavning boshqalar ishlarini rasmiylashtirish	12
4.4. Ustavning chaprochi tartibini rasmiylashtirish	16

3. Hujjatlar xavfsizligi va maxfiyligi

7. Hujjatlar bilan ishlashda, **konfidensiallik** va maxfiylikka qat'iy rioya qilinishi shart.

8. "Xizmat doirasida foydalanish uchun" yoki "Maxfiy" grifi bilan yuritiladigan hujjatlar va xatlarni tayyorlash grifsiz (oddiy) hujjatlarni tayyorlashga qo'yiladigan talablar asosida amalga oshiriladi.

9. Maxfiy hujjatlar maxsus ruxsatnomaga ega bo'lgan shaxslar tomonidan boshqarilishi lozim.

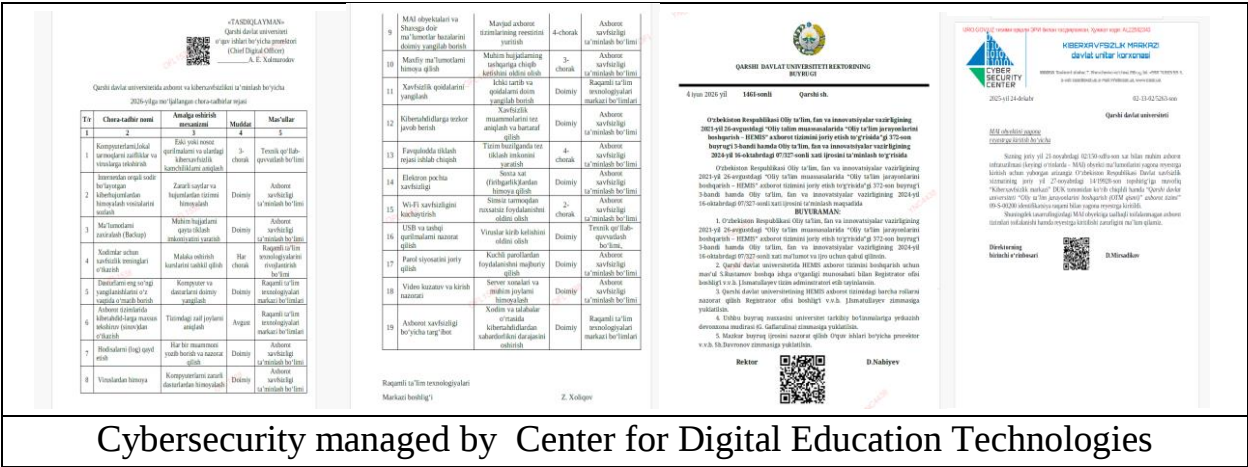
Official document protection managed by "Devonxona"

Karshi State University ensures the protection of personal data and confidential information through established document management and information security procedures. Access to confidential and “For Official Use Only” documents is restricted to authorized personnel. The University applies secure document handling practices, controlled access mechanisms, and QR code–based authentication to protect information from unauthorized access, disclosure, alteration, or loss. These measures support compliance with national data protection requirements and promote a culture of confidentiality and responsible information management.



Personnel data protection managed by HR

The University ensures the confidentiality of employee information through strict internal regulations developed and administered by the Human Resources Department. According to Section II of the Internal Disciplinary Rules, disclosure of employee-related information to third parties without authorization is strictly prohibited. Any violation of confidentiality requirements may result in disciplinary action, including termination of the employment contract, in accordance with university policies and applicable regulations.



Cybersecurity managed by Center for Digital Education Technologies

Karshi State University ensures the security of its information systems and digital infrastructure through a comprehensive information security framework. The

Karshi State University has established and implemented a comprehensive anti-corruption and integrity system to promote transparency, accountability, and ethical conduct across all university activities. The University operates a dedicated Compliance Control Unit responsible for preventing corruption risks, monitoring compliance with relevant regulations, and strengthening institutional integrity. Anti-corruption principles are embedded in the University's internal policies and Code of Ethics, which clearly define unacceptable behaviors, conflicts of interest, and disciplinary measures for violations.

To ensure awareness and compliance, all newly recruited employees are formally informed about the University's anti-corruption policy and ethical standards. As part of the onboarding process, staff members sign an official acknowledgment confirming that they understand and will comply with anti-corruption requirements and will not engage in any actions that could create or facilitate corrupt practices. In addition, the University regularly disseminates guidance and awareness materials to reinforce ethical behavior and a culture of integrity among employees and stakeholders.

Implementation of the University Anti-Corruption and Integrity System through the Compliance Control Unit, Code of Ethics, anti-corruption regulations, and mandatory employee acknowledgment procedures.

Whistle Blowing and Complaint System of the University

[illegible]

ОТА-ОНАЛАР УЧУН СЎРОВНОМА
Хўрматли ота-оналар!

Ушбу сўровнома Қарши давлат университетида шаффофлиқни ошириш ва коррупция ҳолатларининг олдини олиш мақсадида ўтказилмоқда. Сўровнома аноним бўлиб, фақат умумий тахлил учун ишлатилади.

1. Сиз таълим муассасасларида коррупция тушунчасини қандай тушунасиз?

- ☐ Пора олиш ёки бериш
- ☐ Манфаат учун хизмат вазифасидан фойдаланиш
- ☐ Ноқонуний йиғимлар
- ☐ Бошқа (ёзинг):

2. Сиз фарзандингиз ўқибётган таълим муассасасида ноқонуний пул йиғимлари бўлади деб ҳисоблайсизми?

- ☐ Ҳа
- ☐ Йўқ
- ☐ Билмайман

3. Агар шундай ҳолат бўлса, у кўпроқ қайси ҳолатларда учрайди деб ўйлайсиз?

- ☐ Факультет эҳтиёжлари учун
- ☐ Байрам ёки тадбирлар учун
- ☐ Баҳолашга таъсир қилиш учун
- ☐ Бошқа:

4. Сиздан шахсан ноқонуний пул ёки совға талаб қилинган ҳолат бўлганми?

- ☐ Ҳа
- ☐ Йўқ

5. Агар шундай ҳолат бўлса, сиз бу ҳақда қаерга мурожаат қилган бўлардингиз?

- ☐ Олий таълим, фан ва инновациялар вазирлигига
- ☐ Қарши давлат университети раҳбариятига
- ☐ Университет Коррупцияга қарши курашиш "Комплаенс-назорат" тизимини бошқариш бўлимига
- ☐ Ҳеч қаерга мурожаат қилмайман

6. Таълим муассасасида коррупциянинг олдини олиш учун қандай чоралар самарали деб ҳисоблайсиз?

- ☐ Ота-оналар назоратини кўпайтириш
- ☐ Барча йиғимларини очик ўзлов қилиш
- ☐ Ишонч телефонлари ташкил қилиш
- ☐ Тушунтириш ишларини кўпайтириш

7. Сиз фарзандингизга ҳалоллик ва адолат ҳақида тарбия беришни муҳим деб ҳисоблайсизми?

- ☐ Ҳа
- ☐ Йўқ
- ☐ Қисман

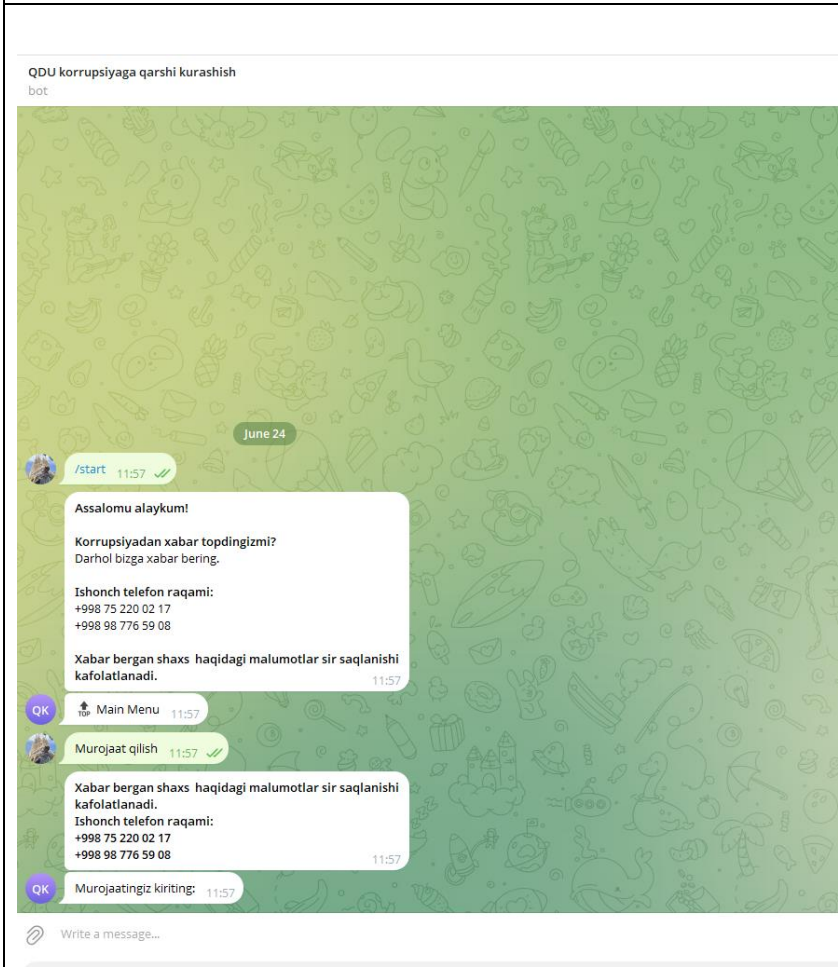
8. Қарши давлат университетида коррупцияга қарши тарғибот ишлари етарли деб ўйлайсизми?

- ☐ Ҳа
- ☐ Йўқ
- ☐ Билмайман

9. Сизнингча, ота-оналар коррупциянинг олдини олишда қандай роль ўйнаши керак?

10. Сизда қўшимча таклиф ёки фикрлар бўлса, ёзинг:

Коррупцияга қарши курашиш "ҚН" тизимини бошқариш бўлими ишонч телефон рақамлари: 75-220-02-17, 98-776-59-08, 97-319-00-12, @QarDa_antiKor_bot ёки <https://my.qarshida.uz/services/105> орқали хабар беришга ҳуқуқин берган маълумотларингиз ва шахсий маълумотларингиз тўлиқ сир сақланишига кафолат берилмади!!!



Examples of whistle blowing

Questionnaire for academic staff: <https://forms.gle/wBzcbHuzYwm2tLR4A>

Questionnaire for students: <https://forms.gle/rKnxvKZbqeMyKUV27>

Questionnaire for parents: <https://forms.gle/ApTqskNqdbawEfhM7>

Karshi State University has established a comprehensive whistleblowing and complaint system to promote transparency, accountability, and ethical conduct within the institution. The University provides multiple channels through which students, academic staff, employees, parents, and external stakeholders can report concerns, submit complaints, and provide feedback regarding academic, administrative, or integrity-related issues.

To ensure accessibility and stakeholder participation, the University regularly conducts anonymous surveys for academic staff, students, and parents to identify potential concerns and evaluate institutional integrity practices. In addition, the University operates **QarDU_AntiKor_bot**, a dedicated digital platform that enables users to report suspected corruption cases, submit complaints, and communicate directly with responsible authorities in a secure and accessible manner.

The whistleblowing system is further supported by dedicated trust hotline numbers (+998 98 776 59 08 and +998 77 106 67 77), allowing stakeholders to confidentially report misconduct, ethical violations, or corruption-related concerns. All submissions received through surveys, digital reporting channels, and hotline services are reviewed by the responsible units to ensure timely response, appropriate follow-up actions, and continuous improvement of institutional governance. These mechanisms strengthen the University's commitment to transparency, accountability, anti-corruption practices, and stakeholder engagement.

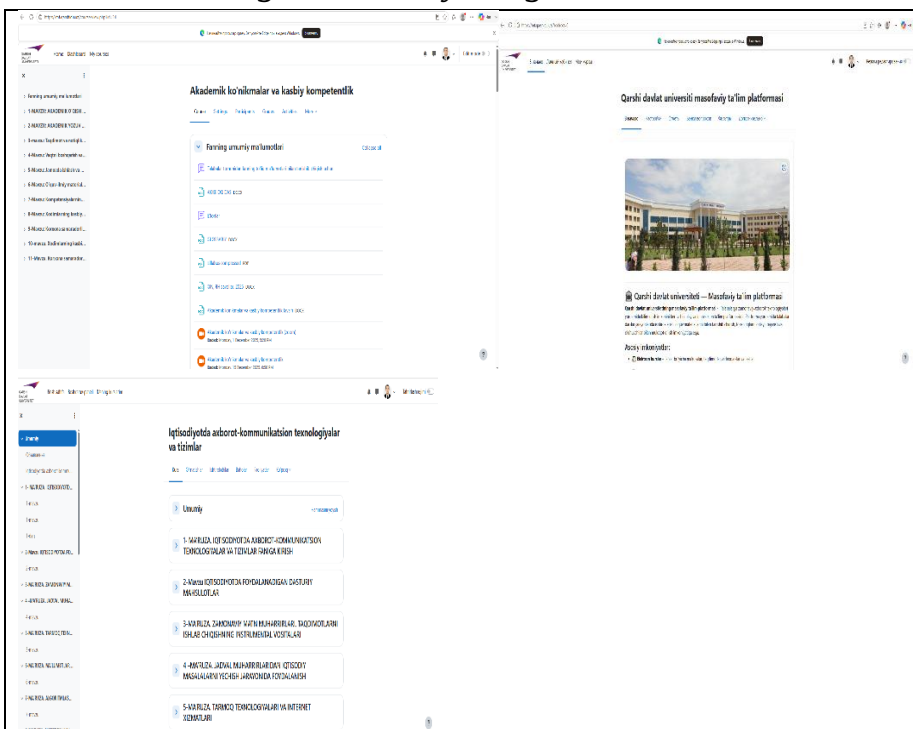
Examples of the University whistleblowing and complaint system, including stakeholder surveys, QarDU_AntiKor_bot, and dedicated trust hotlines for reporting concerns, complaints, and suspected corruption cases.

Ratio of Female Leaders to Total Institutional Leaders

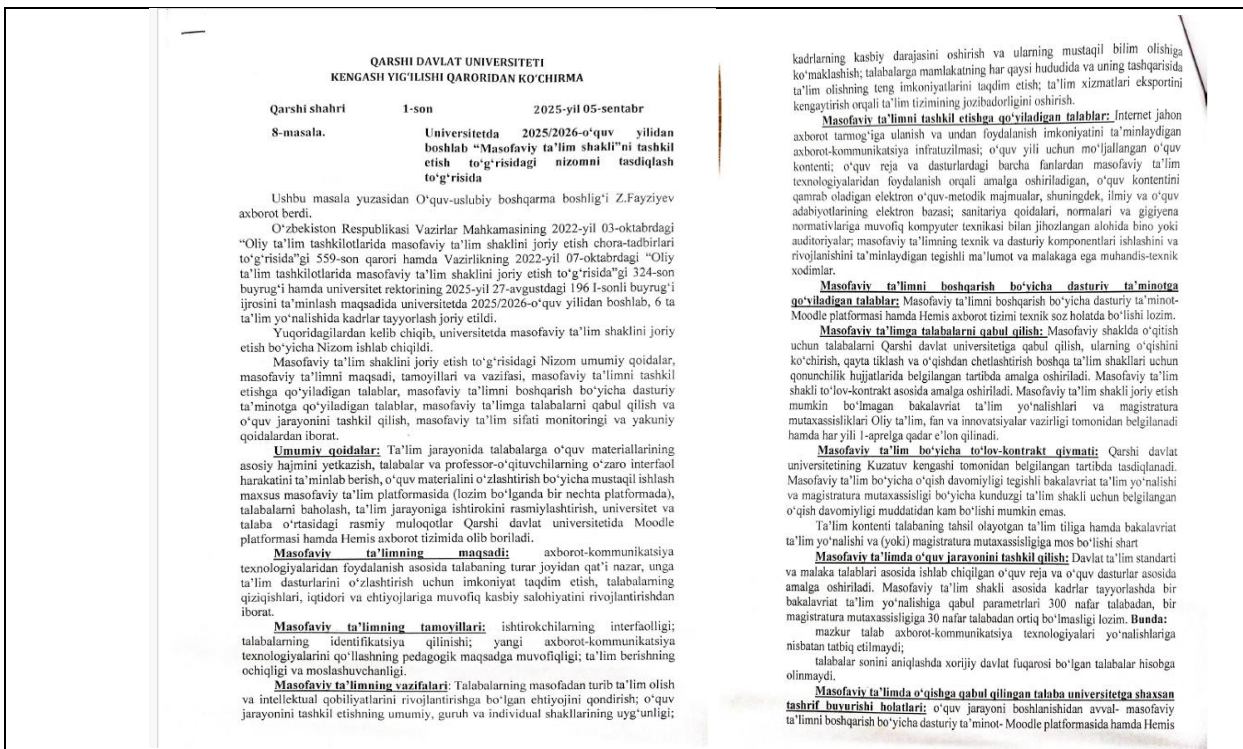
Leadership Level	Total Leaders & Deputies	Female Leaders & Deputies
University Level	10	4
Faculty / School Level	33	13
Study Program Level	53	22
University-Level Units	30	9
Total	126	48

$$\text{Ratio of Female Leaders} = \frac{48}{126} \times 100 = 38.09\%$$

LMS-Enabled Digital Literacy Program



Mt.qarshidu.uz



Karshi State University has established a comprehensive **Code of Ethics** approved by the University Council and applicable to all university leaders, academic staff, administrative personnel, technical staff, researchers, doctoral candidates, and students. The Code promotes integrity, professionalism, academic honesty, mutual respect, equality, transparency, anti-corruption principles, responsible use of university resources, and ethical conduct in teaching, research, and administrative activities. It also regulates professional behavior, communication, dress code, conflict of interest, and social responsibility while fostering an inclusive, respectful, and safe academic environment.

Implementation of the Code is supported through institutional mechanisms, including awareness activities, orientation for university members, monitoring by responsible units, and oversight by the University Ethics Commission. Violations of the Code are investigated according to established procedures, and disciplinary measures are applied in accordance with university regulations and national legislation. The Code is periodically reviewed and updated to ensure continuous improvement of ethical governance and institutional accountability.