



Building a sustainable world

Navoi State University



University Infrastructure Information

Total parcel area: 629512.48 m2

Total campus area is only that in which academic activities are conducted: 292585 m2

Total campus buildings area: 44618m2

Total open space area: (Total parcel area) – (Total campus building area)

Total open space area: 629512.48 m2 - 44618 m2= 584894,48 m2

The ratio of open space to total area: (292585 -44618/292585)*100% = 84.75 %

Formula: ((1.5-1.6/1.5)*100%)

Navoiy State University: Report (2026)

Category Description Value (m²)

Total Campus Area Total area in which academic activities are conducted
292,585 m²

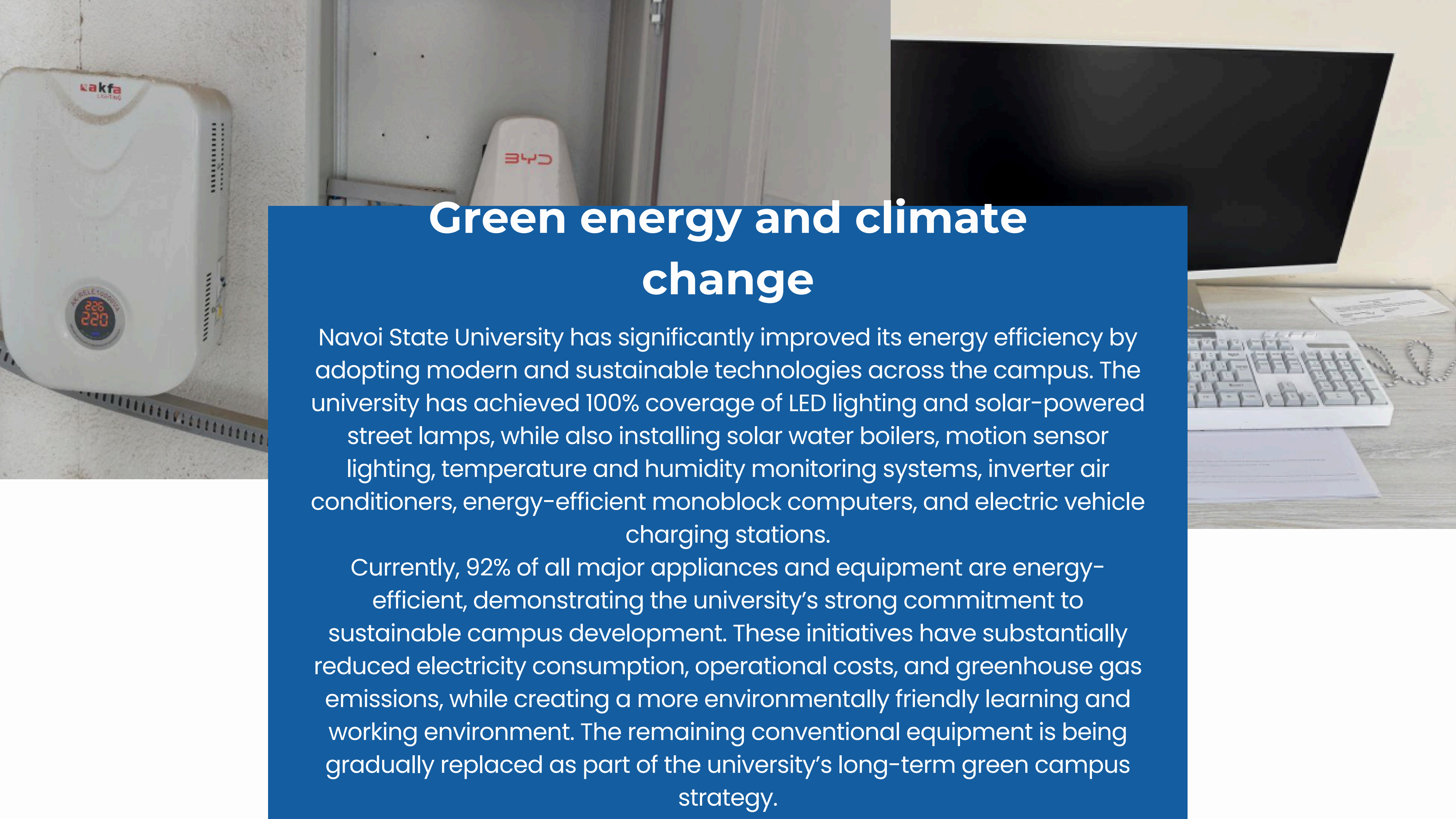
Total Building Area Total area covered by all campus buildings 44,618 m²

Total Open Space Area Open space within the campus (Total Area - Building Area) 247,967 m²



**Navoi State
University**

Uzbekistan



Green energy and climate change

Navoi State University has significantly improved its energy efficiency by adopting modern and sustainable technologies across the campus. The university has achieved 100% coverage of LED lighting and solar-powered street lamps, while also installing solar water boilers, motion sensor lighting, temperature and humidity monitoring systems, inverter air conditioners, energy-efficient monoblock computers, and electric vehicle charging stations.

Currently, 92% of all major appliances and equipment are energy-efficient, demonstrating the university's strong commitment to sustainable campus development. These initiatives have substantially reduced electricity consumption, operational costs, and greenhouse gas emissions, while creating a more environmentally friendly learning and working environment. The remaining conventional equipment is being gradually replaced as part of the university's long-term green campus strategy.

Renewable energy production

Navoi State University actively promotes renewable energy by utilizing solar, wind, and micro-hydropower systems across the campus. In 2025, the university generated 887,800 kWh of renewable electricity, covering 118.3% of its total annual electricity consumption. Solar panels provide the largest share of clean energy, while wind turbines and micro-hydropower systems further diversify the university's renewable energy portfolio. In addition, solar boilers supply approximately 80% of the hot water demand in student dormitories, significantly reducing the use of conventional electricity and gas. These renewable energy initiatives lower greenhouse gas emissions, reduce operational costs, and support the university's long-term commitment to carbon reduction, energy independence, and sustainable campus development.



Greenhouse gas emission reduction

Navoi State University is committed to reducing greenhouse gas emissions through renewable energy production, sustainable transportation, and environmentally friendly campus management.

In 2025, the university generated 887,800 kWh of renewable electricity from solar panels, wind turbines, and micro-hydropower systems, covering 118.3% of its annual electricity demand. In addition, solar boilers provide 80% of the hot water required in student dormitories, significantly reducing conventional energy consumption.

To promote low-carbon mobility, the university has introduced electric scooters, electric vehicle charging stations, free bicycles, and electric/hybrid campus shuttle services, providing convenient alternatives to fossil fuel-powered transportation. Furthermore, parking spaces have been reduced from 150 to 30, with parking fees introduced to discourage private vehicle use and encourage sustainable transport. Former parking areas have been converted into green spaces and outdoor learning areas.

The university also strengthens environmental awareness through regular tree-planting campaigns, eco-competitions, workshops, and volunteer activities, fostering a culture of sustainability among students and staff. Together, these initiatives significantly reduce carbon emissions, improve campus biodiversity, and support Navoi State University's long-term vision of becoming a low-carbon, sustainable campus.



Waste management at NSU



Organic waste

Navoi State University implements an integrated organic waste management system in accordance with its Waste Management Policy. Organic waste generated from canteens, student dormitories, laboratories, and campus landscaping is separated at the source using designated collection bins and managed through environmentally responsible treatment methods. During the reporting year, the university generated 168 tons of organic waste, of which 42 tons were treated or reused through on-campus composting and cooperation with the local waste management company Navoi Stimul.

The university operates a dedicated composting area where food waste, leaves, grass clippings, and other biodegradable materials are converted into nutrient-rich compost used to maintain campus gardens and green spaces. This practice reduces landfill disposal, supports soil improvement, and promotes a circular waste management approach.

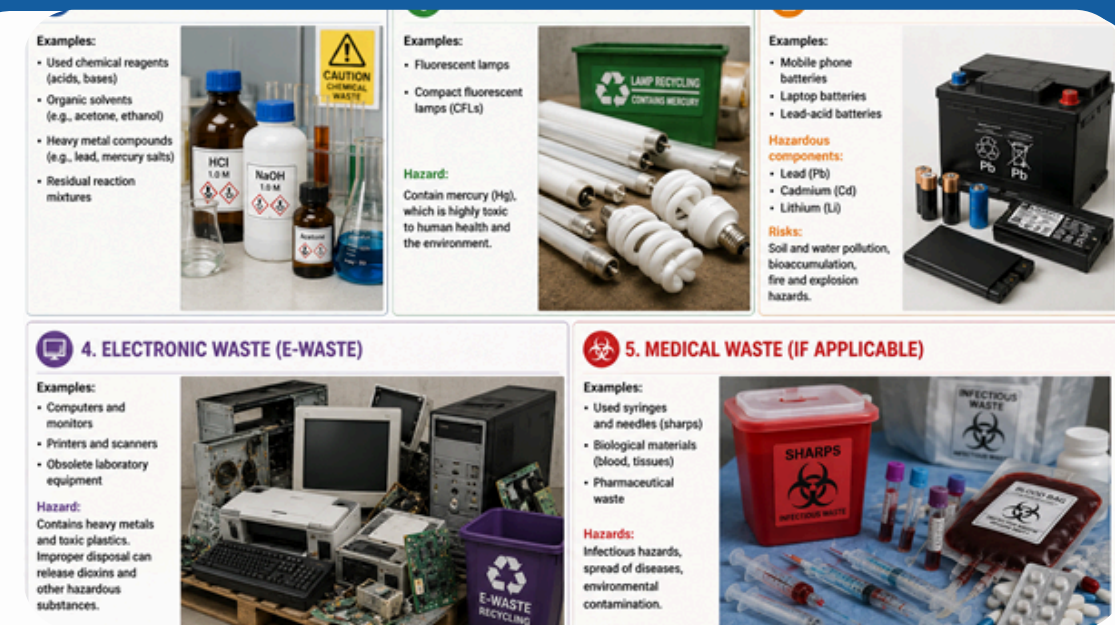
In addition to waste treatment, NSU regularly organizes environmental awareness campaigns, including “Chiqindisiz tabiat!” plogging events, “Yashil makon” tree-planting activities, clean-up campaigns, eco-seminars, and volunteer programs.



Inorganic waste

Navoi State University has established a comprehensive inorganic waste management system in accordance with its Waste Measurement Policy to reduce waste generation, increase recycling, and support circular economy principles. Inorganic waste—including paper, cardboard, plastic, metal, glass, packaging materials, and office supplies—is generated from academic buildings, administrative offices, dormitories, cafeterias, laboratories, and campus events.

The university applies source segregation using color-coded waste bins installed across the campus, enabling the separate collection of paper, plastic, metal, and glass. Waste is regularly collected by the Facilities and Maintenance Department and temporarily stored before being transferred to authorized recycling partners, including Stimul Navoi and Maxsus Trans, for environmentally responsible treatment and recycling. The Sustainability Management Team monitors the entire process through regular inspections and waste management reports to ensure compliance and continuous improvement.



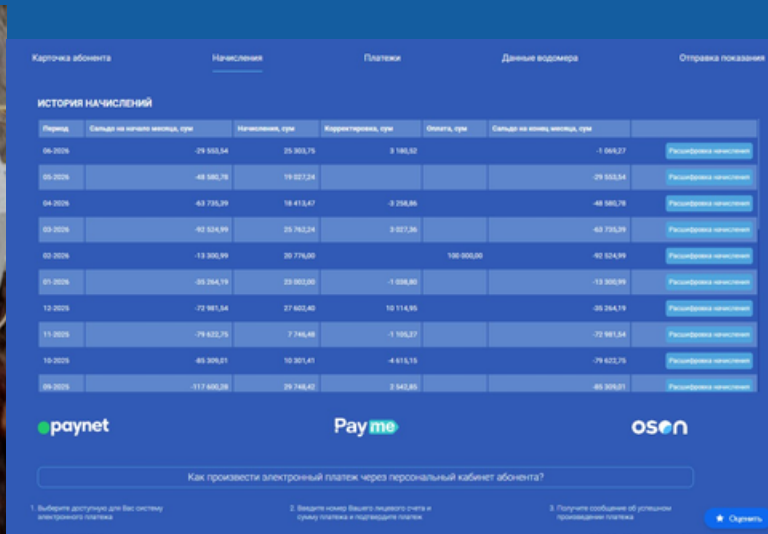
Toxic waste

Navoi State University implements a comprehensive hazardous waste management system in accordance with the national Law of the Republic of Uzbekistan “On Waste” and the University Waste Measurement Policy. Hazardous waste generated from laboratories, technical units, and administrative facilities—including laboratory chemicals, electronic waste, batteries, mercury-containing lamps, and other potentially hazardous materials—is carefully segregated, labeled, and stored in secure designated areas before treatment.

During the reporting year, the university generated approximately 2.0 tons of hazardous waste, of which 1.7 tons (85%) was safely treated or recycled. This reflects a reduction compared to the previous year, demonstrating continuous improvement in hazardous waste minimization.

Special color-coded containers and sealed collection boxes are installed in laboratories and technical rooms for the safe collection of chemicals, batteries, fluorescent lamps, and electronic waste. The Facilities and Maintenance Department oversees collection and temporary storage, while licensed partners—including Utilizatsiya.uz (hazardous waste), Jizzakh Battery Plant (used batteries and accumulators), Navoi Stimul (municipal waste), and Zero Waste (recyclable materials).

Water conservation at NSU



Water Conservation and Sustainable Water Management

Navoi State University implements a comprehensive Water Conservation and Sustainable Water Management Program in line with Uzbekistan's national water policies and the Uzbekistan–2030 Strategy. Through water-efficient technologies, sustainable landscaping, digital monitoring, and awareness programs, the university has reduced water consumption by more than 50% compared to conventional usage.

The university has installed low-flow and sensor-operated taps, low-flush toilets, and modern plumbing systems across academic buildings, dormitories, and administrative facilities to improve water-use efficiency. A digital water monitoring platform enables real-time tracking of water consumption, early leak detection, and data-driven resource management. To reduce irrigation demand, the campus maintains 1,392 drought-resistant trees and uses sprinkler and drip irrigation systems, with drip irrigation reducing water losses by 50–65%. In addition, 31% of the campus area (87,234 m²) is dedicated to rainwater absorption and stormwater management through permeable surfaces, drainage channels, infiltration zones, and roof gutter systems, helping prevent flooding and recharge groundwater.

The university also operates water treatment pumps that recycle and reuse treated wastewater for irrigation, cleaning, and other technical purposes. Water conservation is further supported through awareness campaigns such as “Every Drop Counts”, “Save Water Together”, and World Water Day, engaging more than 2,000 students and staff annually in responsible water-use practices.

These initiatives demonstrate Navoi State University's long-term commitment to sustainable water management, climate resilience, and environmental protection through the implementation of its Water Conservation and Sustainable Water Management Strategy (2025–2030).



Indicator	Value
Total Campus Area	281,400 m ²
Water Absorption Area	87,234 m ²
Share of Campus Dedicated to Water	31%
Permeable Surface Coverage	48,000+ m ²
Green/Open Soil Infiltration Zones	39,000+ m ²
Artificial Retention Ponds	2 Units
Open Drainage and Infiltration Channels	1.1 km
Buildings Connected to Roof Drainage System	100%
Stormwater Collection Points	50+
Trees Supporting Water Infiltration	1,392



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03

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Water absorption at NSU

Navoi State University has developed an integrated rainwater absorption and stormwater management system to improve groundwater recharge, reduce surface runoff, and enhance climate resilience. The university has allocated 87,234 m² (31%) of its campus area to water absorption and stormwater management infrastructure.

The system includes permeable pavements, gravel surfaces, and open soil zones covering more than 48,000 m², allowing rainwater to infiltrate naturally into the ground. All major university buildings are equipped with roof gutter systems that collect rainwater and direct it to infiltration areas, drainage channels, and retention facilities, reducing soil erosion and localized flooding.

To further improve water management, the campus maintains two rainwater retention ponds, underground drainage and infiltration networks, and more than 30 designated water absorption zones identified with blue environmental signage. These interconnected facilities enhance infiltration, regulate stormwater flow, prevent waterlogging, and support groundwater replenishment while raising environmental awareness among students and staff.



Water Pollution Prevention and Sustainable Water Management

Navoi State University implements a comprehensive water pollution prevention program in accordance with Uzbekistan's national water and environmental legislation. The university protects campus water systems through responsible laboratory practices, wastewater management, stormwater protection, environmental education, and continuous infrastructure monitoring.

Hazardous laboratory chemicals, solvents, oils, and other harmful substances are strictly prohibited from entering the sewerage system. Chemical residues are collected separately and managed in compliance with environmental and safety regulations, while only wastewater meeting sanitary standards is discharged into the municipal wastewater network operated by Navoiy Suv Ta'minoti JSC, where it undergoes mechanical and biological treatment before safe release.

The university further minimizes water pollution through regular maintenance of drainage systems, water-efficient sanitary facilities, and proper management of food-service wastewater. Approximately 87,234 m² (31%) of the campus is dedicated to water absorption and stormwater management, helping filter runoff, reduce flooding, and protect surrounding water resources.

Environmental awareness campaigns—including “Every Drop Counts,” “Save Water Together,” and World Water Day activities—encourage responsible water use and pollution prevention among students and staff. In addition, the university supports research on water quality, wastewater treatment, sustainable irrigation, and drought-resistant vegetation through Master's and PhD projects and collaboration with national research institutions.

Regular inspections conducted by the Facilities Management Department ensure compliance with environmental regulations and continuous improvement of water infrastructure. These integrated measures demonstrate Navoi State University's long-term commitment to preventing water pollution, protecting regional water resources, and promoting sustainable water management.



Sustainable Campus Transportation – Shuttle Bus Service

Navoi State University promotes sustainable mobility by providing a free shuttle bus service for students, faculty, and staff. The university operates eco-friendly CNG-powered minibuses connecting academic buildings, student dormitories, administrative offices, and nearby public transport stations. Shuttle services run every 20–30 minutes during working hours, reducing dependence on private vehicles, easing traffic congestion, and lowering greenhouse gas emissions.

To further strengthen sustainable transportation, the university has signed a cooperation agreement with the Navoi City Transport Department, enabling the use of electric buses for free transportation between university campuses and throughout the city. Clearly marked bus stops, published schedules, and integration with the city's public transport network provide convenient and accessible mobility for the university community.

As part of its long-term Green Campus Policy, Navoi State University plans to expand shuttle routes and gradually transition its transportation system to fully electric vehicles, reinforcing its commitment to environmentally friendly, low-carbon campus transportation.



Zero Emission Vehicles (ZEV) on Campus

Navoi State University actively promotes zero-emission transportation through a comprehensive Zero Emission Vehicle (ZEV) program. The university administration, including the Rector and Vice-Rectors, uses 47 electric vehicles for official duties, demonstrating institutional leadership in sustainable mobility. Electric vehicle charging stations have been installed across all five university campuses, providing convenient charging facilities for staff, students, and visitors, with future plans to integrate solar-powered charging systems.

To encourage low-carbon transportation, the university also provides 100 electric scooters and 150 bicycles free of charge for students and employees. Designated charging points, bicycle parking areas, and dedicated cycling paths ensure safe and convenient use of these zero-emission transport options. In addition, the university promotes ride-sharing initiatives to further reduce fuel consumption, traffic congestion, and greenhouse gas emissions.

These initiatives support Navoi State University's Green Campus Policy by expanding clean transportation options, reducing dependence on fossil fuel vehicles, and fostering a culture of environmentally responsible mobility across the campus.



Transportation Initiatives to Reduce Private Vehicle Use

Navoi State University has implemented a comprehensive sustainable transportation program to reduce private vehicle use, lower greenhouse gas emissions, and improve campus air quality. The university promotes environmentally friendly mobility through a combination of policy measures, infrastructure development, and incentive programs.

Key initiatives include a weekly Car-Free Day, a free campus shuttle service, a bike-sharing program with dedicated cycling infrastructure, and incentives such as free or discounted public transport passes for high-achieving students and faculty. The university also encourages the use of electric and low-emission vehicles by providing EV charging stations, replacing university vehicles with electric or hybrid models, and offering preferential parking for EV users.

In addition, pedestrian-friendly pathways and car-free zones have been developed to encourage walking as a safe and convenient mode of transport. Together, these initiatives have reduced traffic congestion, minimized carbon emissions, and strengthened Navoi State University's commitment to sustainable, low-carbon campus mobility.

Navoi State University - Initiatives to Reduce Private Vehicles on Campus (2026)

- 1. Car-Free Friday**
Encourages campus-wide car-free participation every Friday
- 2. Incentives for High-Achieving Students & Faculty**
Rewards top performers with free shuttle passes
- 3. Bike-Sharing Program**
Expands bike rental stations across campus
- 4. Free Shuttle Service**
Operates frequent campus shuttles
- 5. Promotion of Electric Vehicles**
Installs charging stations for electric cars
- 6. Pedestrian-Friendly Pathways**
Develops safe walking and cycling routes

6 Major Initiatives • Significant Reduction Private Vehicles

International Sustainability Collaborations

Navoi State University actively promotes sustainability through international partnerships, research collaboration, academic mobility, and global capacity-building initiatives. The university has signed more than 60 international cooperation agreements and collaborates with universities, research institutions, and industry partners across Europe and Asia to advance education, environmental protection, sustainable agriculture, green technologies, and health sciences.

During the reporting year, 62 faculty members participated in international training and research programs abroad, while 22 international scholars delivered lectures and workshops at the university. NSU also launched its International Faculty of Medicine, welcoming nearly 100 international students, further strengthening global academic cooperation.

The university has established strategic partnerships with institutions in China, Malaysia, Hungary, Indonesia, Russia, and other countries, supporting joint research centers, international conferences, student and staff exchanges, sustainability-focused research, biodiversity conservation, sustainable agriculture, artificial intelligence for green technologies, and environmental innovation. These collaborations enhance knowledge transfer, strengthen research capacity, and contribute to achieving the Sustainable Development Goals through long-term international cooperation.

