



**2024-  
2025**

**FARABI UNIVERSITY**

# **17 SDG PROGRESS REPORT**

# Al-Farabi Kazakh National University 17 SDG Progress Report

Al-Farabi Kazakh National University (KazNU), established in 1934, is one of the leading higher education institutions in Central Asia. Since its foundation, KazNU has played a vital role in advancing education, science, and innovation in Kazakhstan, responding to the country's evolving societal needs. The university is strongly committed to the United Nations Sustainable Development Goals (SDGs), and actively fosters partnerships with government, industry, and international organizations to drive transformative change through education, research, and community engagement.

KazNU is a proud member of the United Nations Academic Impact (UNAI) and integrates sustainability

into its strategic priorities. As outlined in its official Sustainable Development Policy, the university aims to become a model “Green University” in the region by 2030, promoting sustainability across academic, scientific, and operational activities.

This 2024-2025 Sustainability Report presents selected examples of KazNU's contributions to each of the 17 Sustainable Development Goals. The report reflects a collaborative, university-wide effort involving faculty, researchers, students, and staff. The cases featured span research, teaching, outreach, and campus operations, illustrating the university's growing dedication to sustainability.

While not exhaustive, this report offers a clear overview of KazNU's strategic direction and its impact at local, national, and global levels in advancing sustainable development.



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# Mission-Driven University for Sustainable Development

**Chairman of the Board – Rector  
of Al-Farabi Kazakh National University  
Zhanseit Tuimebayev**

Wicked problems - complex challenges such as climate change, inequality, and sustainable development - demand cross-disciplinary, collaborative solutions. At Al-Farabi KazNU, we believe in the power of academic leadership, innovation, and partnership to address these critical issues. Our institutional vision is to serve as a mission-oriented university that generates knowledge for society and promotes sustainable development across Kazakhstan and the global academic community.



In line with this vision, KazNU has prioritized sustainability in its development strategy and has integrated the UN Sustainable Development Goals (SDGs) into its core functions: education, research, community service, and campus operations. The university actively pursues transformative solutions through interdisciplinary projects and policy engagement, with a special focus on environmental stewardship, social inclusion, and digital innovation.

Al-Farabi KazNU is proud to be recognized as a regional leader in higher education and sustainability. In recent years, the university has deepened its collaboration with the United Nations, UNESCO, and global networks such as the [UN Academic Impact](#) to align academic outputs with international development priorities. As Kazakhstan's first "Green University," KazNU continuously strives to reduce its ecological footprint and promote sustainability literacy across all disciplines.

This 2025 Sustainability Report highlights initiatives led by faculty, researchers, and students that advance the SDGs in meaningful ways - through scientific discovery, inclusive education, social innovation, and global partnerships. These efforts underscore KazNU's long-term commitment to creating positive impact at the local, national, and international levels.

KazNU embraces the responsibility of higher education institutions in achieving the SDGs and recognizes that lasting change requires collective action. Through mission-oriented leadership, strategic collaboration, and student-centered innovation, KazNU will continue contributing to a more just, equitable, and sustainable world.

## *At KazNU, Knowledge is the Foundation of Sustainable Change*

At Al-Farabi Kazakh National University (KazNU), we believe that knowledge can and must change the world. As one of Central Asia's premier academic institutions, KazNU embraces a mission of excellence and responsibility. We seek knowledge through deep engagement with society and are committed to solving real-world challenges in Kazakhstan, the region, and globally.

KazNU actively supports and promotes sustainable and balanced development - defined by the United Nations as development that meets the needs of the present without compromising the ability of future generations to meet their own needs. Sustainability is embedded across our university's strategic vision and daily operations, and it informs how we teach, research, lead, and govern.

### *Research*

KazNU's researchers are at the forefront of addressing key societal challenges, working across disciplines to generate knowledge that is practical, inclusive, and impactful. From climate resilience and green technologies to digital transformation and public health, our research efforts contribute to the achievement of the UN Sustainable Development Goals (SDGs) at the local, national, and international levels.

Our commitment to cross-sector collaboration ensures that science at KazNU is not developed in isolation. Faculty and institutes engage actively with government bodies, industry partners, and civil society to co-create innovative, evidence-based solutions to complex problems facing society today.

### *Learning and Teaching*

Education at KazNU is grounded in critical thinking, interdisciplinary approaches, and real-world application.

We continuously adapt our academic programs to meet the needs of a changing world, equipping students with the skills, values, and knowledge necessary to contribute meaningfully to sustainable development.

Sustainability principles are integrated into curricula across faculties - from engineering and environmental studies to economics, law, and social sciences. Through hands-on learning, service projects, and research opportunities, students are empowered to become agents of change from the first day of their academic journey.

### *External Leadership and Engagement*

KazNU is proud of its strong and growing partnerships with national ministries, municipalities, international organizations, and leading universities around the world. As a member of the UN Academic Impact (UNAI), KazNU champions initiatives that link higher education to the promotion of human rights, sustainability, and global cooperation.

Through these collaborations, KazNU not only ensures the relevance of its research and teaching but also amplifies its role as a regional leader in sustainable development policy and practice.

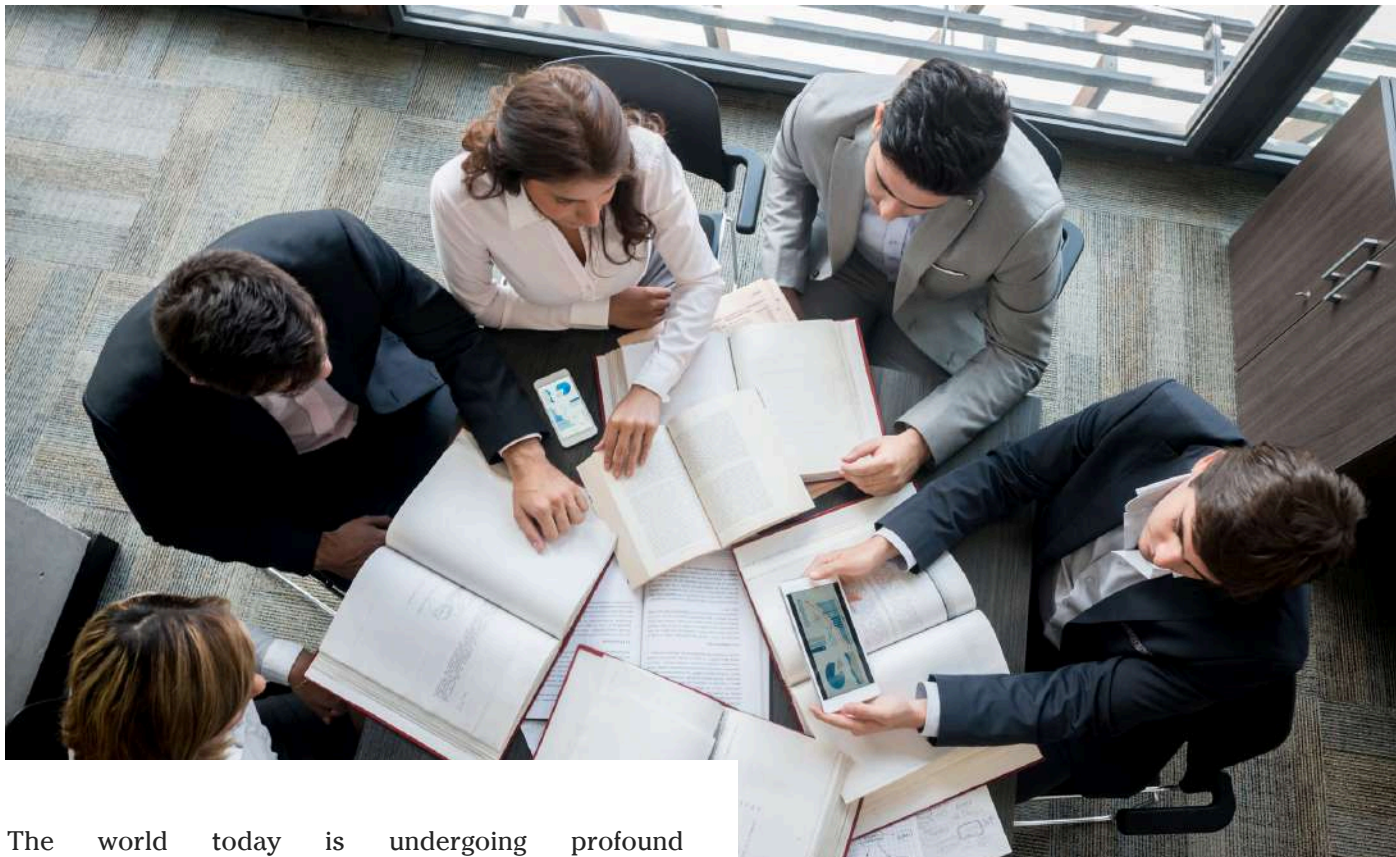
### *Governance and Operations*

KazNU strives to align its operations with the principles of environmental and social responsibility. The university has adopted a comprehensive Sustainable Development Policy and has taken concrete steps to reduce its ecological footprint - from implementing energy efficiency measures and campus greening to improving waste management and water conservation systems.

The university promotes a healthy, inclusive working and learning environment supported by transparent governance, ethical leadership, and a shared culture of sustainability.

**"At KazNU, knowledge is our guiding principle and ultimate purpose. We are committed to transforming into a world-class research university by integrating education, science and innovation under our university 4.0 model. As articulated in our Development Program 2022-2026, we engage proactively with global challenges, joining multidisciplinary networks and contributing solutions for humanity's most pressing issues".**

# Science and Innovation for a Just and Sustainable Future



The world today is undergoing profound transformations. Geopolitical uncertainty, economic shocks, climate risks, and rapid digitalization continue to reshape societies. These developments underscore the urgent need for a more just, resilient, and sustainable world - core objectives of the UN Sustainable Development Goals (SDGs), especially SDG 16 (Peace, Justice & Strong Institutions), SDG 9 (Industry, Innovation & Infrastructure), SDG 7 (Affordable & Clean Energy), SDG 6 (Clean Water and Sanitation), SDG 13 (Climate Action), and SDG 15 (Life on Land).

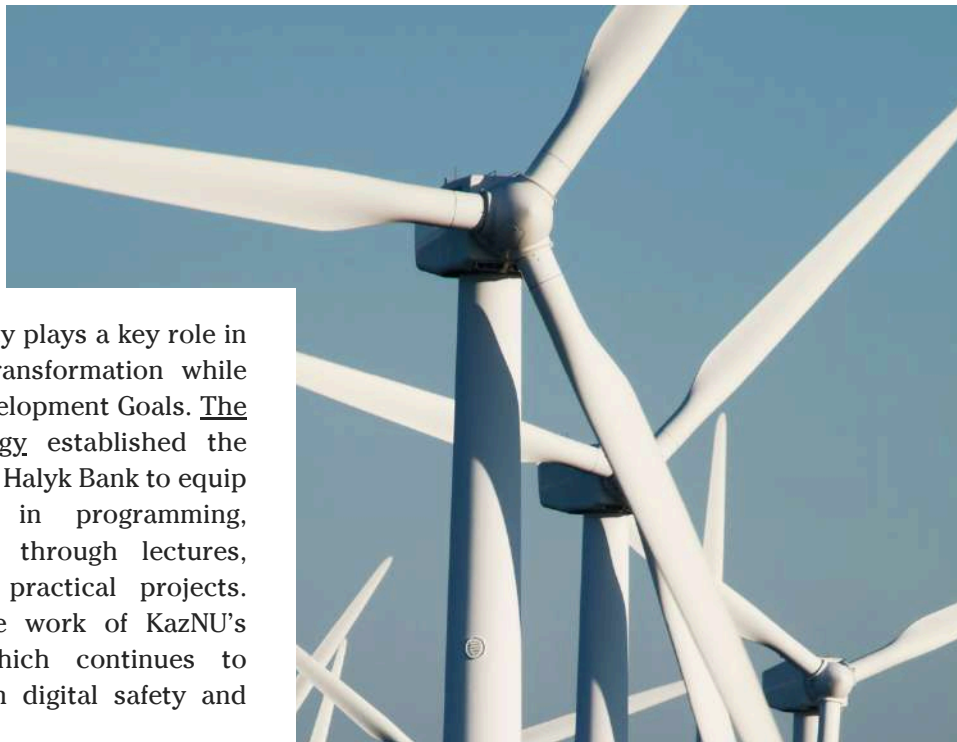
Al-Farabi Kazakh National University is committed to advancing all 17 Sustainable Development Goals (SDGs), recognizing their critical importance in building a fair, sustainable, and prosperous future. To support this commitment, KazNU's Faculty of Geography and Environmental Sciences has established 10 innovative laboratories that focus on practical solutions and advanced research directly contributing to the SDGs.

These include the Climate and Modeling Laboratory, Digital Cartography and Applied Geodesy Laboratory, Global sky Laboratory, Sustainable Tourism Laboratory, Modeling the Dynamics of the Qualitative Composition of Water Resources Laboratory, Geoinformation Analysis of Landscape Degradation Laboratory, Geodemographic and Socio-Economic Research Laboratory, Environmental Safety Laboratory, Soil Ecology Laboratory, and the Laboratory for Environmental Monitoring and Sustainable Development.

By integrating these specialized research hubs into its educational programs and community initiatives, Al-Farabi KazNU promotes a holistic approach to societal and environmental development. Through this multifaceted engagement, the university strives to contribute meaningfully to global efforts aimed at achieving sustainable development at local, national, and international levels.



# Digital Transformation, Cybersecurity and AI for Sustainable Development



Al-Farabi Kazakh National University plays a key role in advancing Kazakhstan's digital transformation while supporting the UN Sustainable Development Goals. The Faculty of Information Technology established the Halyk Academy in partnership with Halyk Bank to equip students with modern skills in programming, cybersecurity, and IT solutions through lectures, masterclasses, hackathons, and practical projects. These initiatives complement the work of KazNU's Information Security Center, which continues to strengthen national capabilities in digital safety and resilience.

KazNU also hosted the International Conference on Information Security, bringing together experts from Germany and Kazakhstan to address cyber threats and share best practices for building digital resilience at national and regional levels.

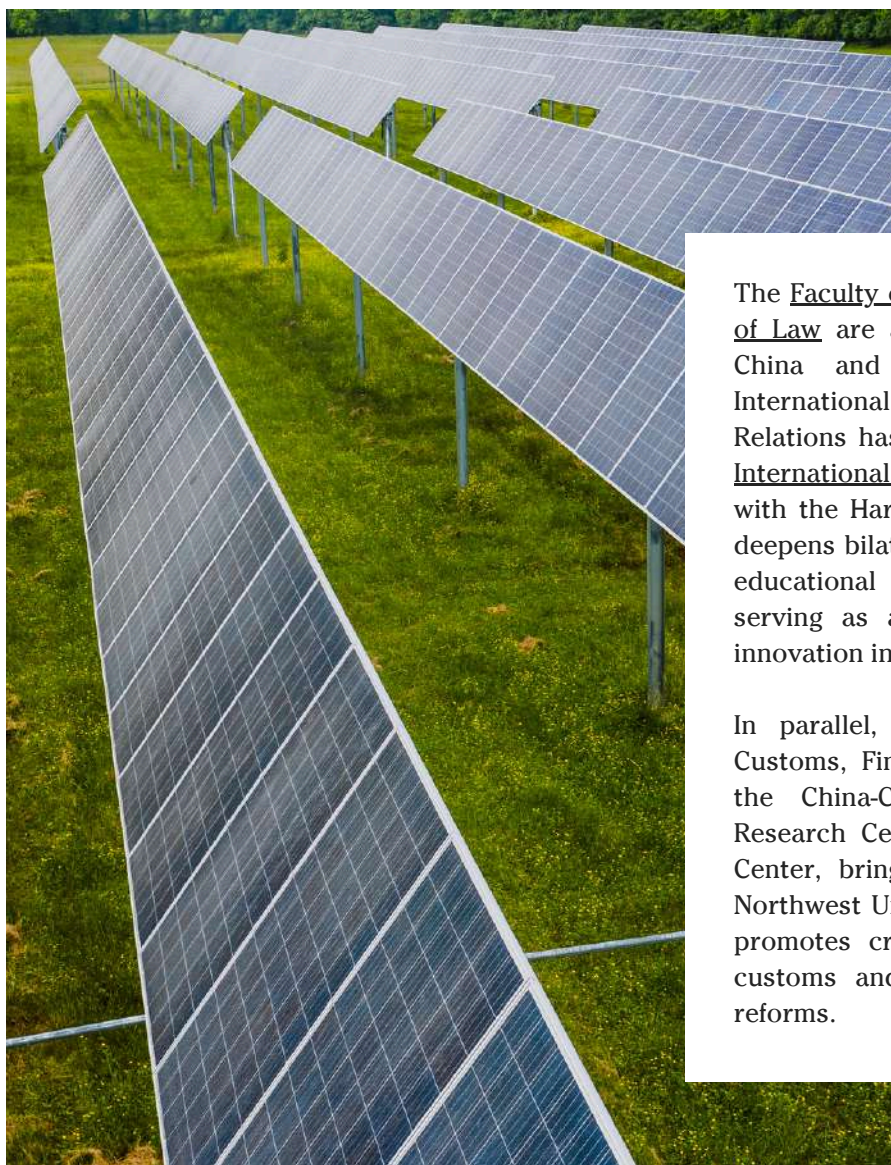
KazNU, together with Tus-Holdings Co. (China), opened the TusPark Business Incubator within the Farabi HUB Innovation Center. This new incubator is a milestone for developing Kazakhstan's DeepTech, digital, biomedical, biotech, and green technology startups. Integrated into the global Tus-Holdings innovation network, the incubator drives technology transfer, commercialization of research, and training of innovative entrepreneurs, directly supporting the President's vision for private innovation ecosystems.

Aligned with Kazakhstan's industrialization and Industry 5.0 goals, KazNU opened the Robotics and Mechatronics Competence Center, equipped with KUKA robots. In partnership with Astana Motors Manufacturing Kazakhstan and Hyundai Trans Kazakhstan, the Center delivers workforce training for automation and smart production.

In addition, the university organized the large-scale international forum "Digital Farabi - 2025", dedicated to "Artificial Intelligence and High-Performance Technologies in the Development of Kazakhstan's Economy." The forum gathered key stakeholders, including the Minister of Science and Higher Education of the Republic of Kazakhstan, the university's Rector, global tech companies like NVIDIA and ASUS, leading IT specialists, investors, and young researchers. Participants shared ideas on integrating AI research into production and commercializing innovative projects. The Rector underlined KazNU's commitment to developing AI in the Kazakh language and transforming it into a language of science, reflecting the university's mission to foster innovation while preserving cultural identity.

Through these events, KazNU demonstrates its commitment to SDG4 (Quality Education), SDG9 (Industry, Innovation & Infrastructure), SDG16 (Peace, Justice & Strong Institutions), and SDG17 (Partnerships for the Goals), strengthening Kazakhstan's human capital and technological readiness for a secure and sustainable future.

# International Cultural and Legal Cooperation for Sustainable Development



The Faculty of International Relations and the Faculty of Law are actively building legal cooperation with China and Central Asia. The Department of International Law at the Faculty of International Relations has established the Sino-Kazakh Center for International and Comparative Law in partnership with the Harbin Institute of Technology. This Center deepens bilateral relations by fostering joint research, educational programs, and academic exchanges, serving as a platform for knowledge sharing and innovation in international and comparative law.

In parallel, the Faculty of Law's Department of Customs, Financial, and Environmental Law opened the China-Central Asia Law Ascertainment and Research Center - China-Kazakhstan Legal Research Center, bringing together experts from KazNU and Northwest University of Politics and Law. The Center promotes cross-border legal research, expertise in customs and financial law, and dialogue on legal reforms.

KazNU has expanded its international ties through new initiatives that strengthen cultural exchange and international legal cooperation. The university opened the Korean Studies Conference Hall SFG, supported by Shinhan Financial Group, which strengthens Korean language and cultural studies, and established the French Center to promote the French language and cultural dialogue.

Through these initiatives, KazNU contributes to SDG 4 (Quality Education), SDG 8 (Decent Work and Economic Growth), SDG 16 (Peace, Justice & Strong Institutions), and SDG 17 (Partnerships for the Goals).



# Climate Action, Sustainable Land Use and Water Security



Al-Farabi Kazakh National University is strengthening its scientific infrastructure through international partnerships to address climate change and sustainable resource management in line with the UN Sustainable Development Goals (SDGs).

KazNU launched the Remote Sensing Technologies and Applications Laboratory in collaboration with the Chinese Academy of Sciences. The laboratory focuses on monitoring climate change, land degradation, and water resources.

Within the Scientific Center for Sustainable Development and Rational Natural Resource Use is implementing key projects aligned with Kazakhstan's National Development Plan and the SDGs.

One flagship initiative is the Sustainable Agriculture in Arid Territories project, which combines innovative agrotechnologies, smart greenhouses, and water-saving solutions to reduce water consumption by 30% and increase crop yields by 20%.

KazNU's Water Resources Quality Dynamics Modeling Laboratory assesses, and forecasts changes in groundwater and surface water quality through mathematical modeling. Experts analyze pollutant levels, evaluate impacts, and develop recommendations to reduce environmental risks. Led by Dr. L. Pavlichenko, the laboratory supports safe drinking water access, public health, and ecosystem protection. Together with Germany's NetSCI GmbH, KazNU will launch the Institute for Biodiversity Protection and Conservation in Central Asia, supporting ecosystem preservation through research, investment, and knowledge exchange.

These efforts contribute directly to SDG6 (Clean Water and Sanitation), SDG13 (Climate Action), and SDG15 (Life on Land).

# Innovative Technologies for Industry and Green Economy

*KazNU drives Kazakhstan's green economy and industrial innovation through research clusters and high-tech centers.*

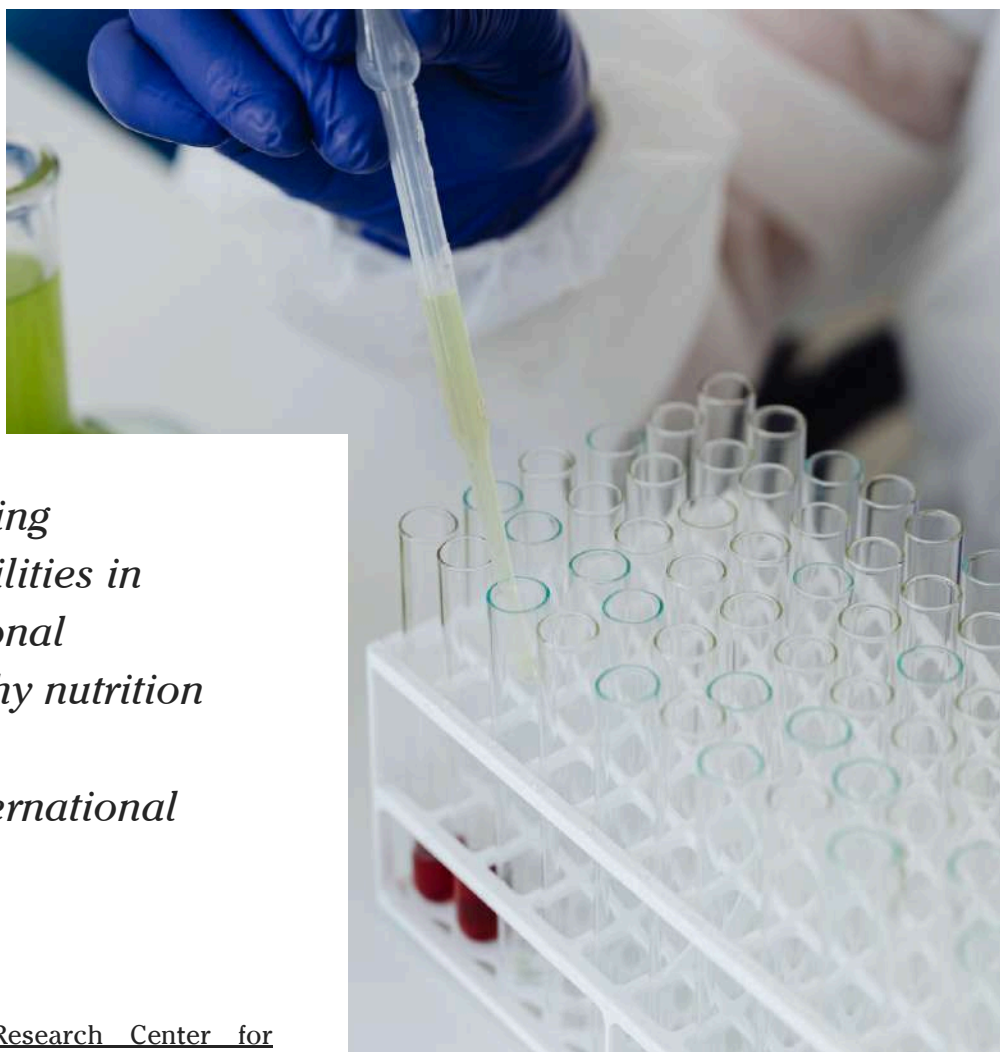
The Farabi Chem Science Cluster unites nine advanced laboratories pioneering solutions in petrochemicals, biomedical materials, environmental analysis, and renewable energy. Innovations include petrochemical catalysts, sodium-ion batteries, antibacterial coatings, and new materials for construction and healthcare. The Chemical Coatings Innovations Center, Kazakhstan's first platform offering tailored R&D for industry, develops eco-friendly coatings and advanced materials for clients such as KazElectroPrivod, supporting sustainable growth.

In partnership with ZTE, KazNU operates a lab with cutting-edge 4G/5G platforms, training students to international standards. The Cryophysics and Cryotechnologies Laboratory has developed a mobile low-temperature thermobox based on liquid nitrogen for safe storage and transport of vaccines and biomaterials, offering an affordable alternative to imported solutions.

These initiatives support SDG 7 (Affordable and Clean Energy), SDG 9 (Industry, Innovation & Infrastructure), and SDG 12 (Responsible Consumption and Production).



# Sustainable Health and Biotechnology



*KazNU is strengthening Kazakhstan's capabilities in biomedicine, traditional therapies, and healthy nutrition through specialized laboratories and international partnerships.*

The new Pharmacological Research Center for Hirudotherapy, established within the Research Center for Medicinal Plants, explores the therapeutic properties of medical leeches, scientifically validating their bioactive compounds and clinical applications. A cooperation agreement with the Hirudotherapy Association defines strategic research directions and expands evidence-based alternative medicine in Kazakhstan.

Together with Peking University, KazNU launched the Kazakhstan-China Center for Healthy Nutrition, which researches Kazakhstan's medicinal plants and develops functional soy-based food products to improve public health and nutrition security. This partnership deepens academic exchange and drives innovative research in phytochemistry and nutrition.

International Applied Microbiology Laboratory, created during the "Sustainable Future-2024" conference marking KazNU's 90th anniversary, is a Kazakhstan-Germany-China partnership advancing research in agricultural biotechnology, biodiversity conservation, and innovative waste processing. The lab supports sustainable agriculture, environmental protection, and health by strengthening Kazakhstan's capacity in applied microbiology for agriculture, medicine, ecology, and industry.

These efforts contribute directly to SDG3 (Good Health and Well-Being), SDG9 (Industry, Innovation & Infrastructure), and SDG17 (Partnerships for the Goals).



# Heritage, Science and Regional Cooperation for Sustainable Development

KazNU is expanding its interdisciplinary research and cultural heritage projects to foster sustainable development and strengthen regional partnerships. The Kazakh-French Archaeozoological Center (ZooStan), founded with France's National Center for Scientific Research (CNRS), investigates human-animal interactions in Central Asia over the past million years.

The Center conducts archaeological excavations, laboratory research, and student training in modern archaeological methods, enriching understanding of human evolution, ancient economies, and adaptation to extreme environments.

The Dukenbai Doszhan Scientific and Creative Center for Digital Philology, opened during the XV Bagizbayev Readings, connects young creatives with leading writers to advance digital humanities at KazNU's Faculty of Philology. The Center has already presented an AI-generated animated adaptation of Saule Doszhan's novel *Millionaire from the Village* and hosted an international roundtable on the future of

digital philology, showcasing how digital technologies can preserve and promote cultural heritage.

Through these projects, KazNU contributes to SDG 4 (Quality Education), SDG 11 (Sustainable Cities and Communities), SDG 17 (Partnerships for the Goals), and promotes the integration of heritage, science, and innovation for sustainable regional development.



# Sustainable Management, Business Education, and Smart Cities



KazNU continues to advance sustainable management and business education by bridging academic programs with real-world industry needs. The Higher School of Economics and Business launched the Sustainable Development Goals Classroom, supported by PSK Stroy-Invest and Baurdaq, to promote strategic planning, sustainability, and practical skills for future business leaders. The Halyk Academy Laboratory, created with Halyk Bank, provides hands-on training in financial technologies, bridging theory and practice for students pursuing careers in banking and fintech.

To strengthen regional and international collaboration, KazNU partnered with the Hong Kong Polytechnic University to establish the Central Asia Sustainable Development Center, which researches and digitalizes the tourism industry. The Center develops analytical and educational programs, studies tourism's socio-economic impacts, and contributes to building Kazakhstan's national digital tourism ecosystem.

The Faculty of Journalism launched the LG AI MediaLab in partnership with LG Electronics Almaty Kazakhstan. This pioneering lab explores AI applications in media - from automated news generation and fact-checking to AI-driven student newspapers and social media content - integrating digital technologies with social sciences and expanding Kazakhstan's creative economy.

As part of its Green Campus Initiative, KazNU inaugurated a new Eco-Hub to promote environmental awareness, sustainable practices, and climate education. The Eco-Hub functions as a living laboratory

with demonstration areas for renewable energy, waste recycling, urban gardening, and water conservation. It hosts workshops, exhibitions, and student-led projects that inspire practical engagement with SDGs - especially SDG 7 (Affordable and Clean Energy), SDG 11 (Sustainable Cities and Communities), and SDG 13 (Climate Action).

At the Science - Business - Production Integration Forum, organized jointly with the Almaty City Akimat, KazNU's Rector presented proposals for developing a Science City, expanding AI clusters, and leveraging the university's supercomputer and remote sensing laboratories for urban sustainability. New partnerships with industry leaders support Almaty's transformation into a smart, resilient, and green city.

These integrated efforts align with SDG4 (Quality Education), SDG9 (Industry, Innovation & Infrastructure), SDG11 (Sustainable Cities and Communities), and SDG17 (Partnerships for the Goals), demonstrating KazNU's leadership in connecting education, business, and sustainable urban development.

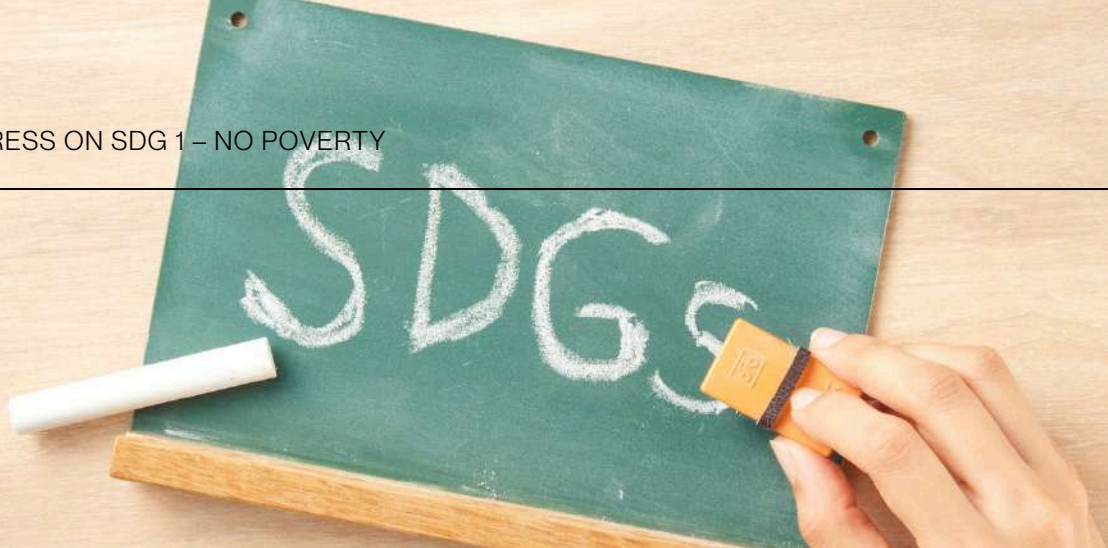


# SDG 1 – NO POVERTY

**1** NO  
POVERTY







In 2025, Al-Farabi KazNU successfully completed the AR19677016 project - “Ecosystem Model of Socially Oriented Entrepreneurship in the Context of Sustainable Development of Southern Kazakhstan” (2023–2025, ₸66.7 million). This project introduced a practical ecosystem designed to support vulnerable populations - individuals with disabilities and disadvantaged communities - by promoting inclusive economic participation and social innovation. Consequently, it significantly advanced both SDG 1 (No Poverty) and SDG 8 (Decent Work and Economic Growth) in Southern Kazakhstan.



In addition, KazNU's commitment to sustainability extends into the sphere of innovation and green technology. The Faculty of Physics and Technology has pioneered bioenergy and smart energy solutions that not only benefit the environment, but also generate employment opportunities and support local small businesses. Thus, these eco-driven initiatives further amplify the university's impact on poverty alleviation through sustainable economic growth.

Moreover, in line with its strategic “Poverty Eradication Programme,” KazNU launched several community-centred campaigns during 2024 - 2025, directly addressing SDG 1:

1. Public Fund “Komek” - a student-led initiative established

in 2010, which in 2025 delivered educational mentoring, psychological support, and development-oriented leisure activities for orphans, disabled children, and elderly citizens. In 2025, the fund engaged over 150 beneficiaries. These efforts foster empathy, civic engagement, and a culture of inclusion.

1. Silver University - offering elderly participants free courses on digital and financial literacy as well as personal well-being, thus mitigating isolation and strengthening economic independence. In 2024–2025, more than 100 seniors benefited, reducing isolation and strengthening economic independence.

Furthermore, KazNU's complements these grassroots initiatives with systemic support.

Under its Social Development Policy, the university implemented targeted measures for vulnerable students, including scholarships, stipends, housing and meal allowances, preferential admission and tuition waivers for orphans, persons with disabilities, rural youth, and low-income families. In 2024–2025, over 400 students received such support, including one-time social assistance of approximately ₸100,000 per recipient. Dorm accommodations and food services were provided at discounted or zero cost. Additionally, dorm accommodations and food services were offered at discounted or zero cost. Collectively, these policies reinforce equitable access to education - a fundamental lever for breaking the cycle of intergenerational poverty.

In addition to these community-centered and environmentally-oriented initiatives, KazNU has reinforced student well-being and inclusive development through a wide array of scholarships, social support programs, and benefits. The university's commitment to equitable access is reflected in its comprehensive scholarship schemes, which include state educational grants, one-time social assistance payments (approximately ₸100,000), and targeted bank scholarships such as those offered by Shinkhan Bank. Notably, high-achieving students also benefit from the Abai-Vern program, designed to recognize and financially support academic excellence. Collectively, these measures mitigate financial barriers and encourage academic engagement among students from diverse socio-economic backgrounds.



Furthermore, KazNU's institutional framework extends beyond financial assistance. The Social Development Policy (2024–2025) guarantees preferential treatment in admission and tuition for orphans, persons with disabilities, rural youth, and low-income families. Dormitories and meal services are provided at discounted or zero cost, while additional benefits include access to clothing compensation programs and subsidized housing. These initiatives demonstrate a holistic approach to student support, combining economic, social, and psychological dimensions to foster equitable educational outcomes.

To complement financial and material support, the university actively promotes legal and psychological assistance. Through its student legal clinic, KazNU offers free consultations on labor, civil, and family law matters, while counseling services provide guidance to students facing personal or academic challenges. This integrated approach not only protects student rights but also strengthens resilience and social inclusion.

KazNU's commitment to entrepreneurship and innovation further enhances its social impact. Through collaborations with institutions such as Tus-Holdings, the university facilitates incubators, mentorship programs, and innovation workshops aimed at empowering student-led enterprises. Gender-focused initiatives, including programs hosted by the KazNU Business School, support women entrepreneurs, promoting inclusivity and practical skills development.





The university also prioritizes international collaboration as part of its strategic development. Programs such as winter and summer schools in Japan and China, along with international academic exchanges, broaden students' global competencies, foster cross-cultural understanding, and enhance the competitiveness of KazNU graduates on the international stage. These initiatives complement the university's broader social and economic objectives by equipping students with the skills necessary to drive sustainable development at both local and global levels.

In the field of research and innovation, KazNU supports young scientists through grants, research projects, and innovation programs. Laboratories such as the Technology of Remote Sensing and Their Applications advance sustainable agricultural practices, while the Faculty of Physics and Technology continues to develop eco-friendly solutions in bioenergy and smart technologies. Such research not only strengthens the university's scientific capacity but also contributes directly to social welfare, poverty reduction, and sustainable regional development.

Overall, KazNU's multi-faceted approach – combining targeted social support, entrepreneurship initiatives, international exposure, and research-driven innovation – positions the university as a leader in promoting inclusive economic growth and sustainable development. By fostering an environment where students from diverse backgrounds can thrive academically, socially, and professionally, KazNU exemplifies the integration of higher education with broader societal impact.

Initiative	Target Audience	Key Outcomes
AR19677016 Social Entrepreneurship Research	Vulnerable populations (disabled, low-income communities)	Inclusive ecosystem model; promoted economic participation; SDG 1 & 8 progress; supported 200 individuals, created 15 social-startup initiatives
Komek Fund	Orphans, children with disabilities, elderly	Educational mentoring, psychological support, civic engagement; 150 beneficiaries
Silver University	Elderly citizens	Digital and financial literacy; reduced isolation; 100 participants
Social Development Policy	Low-income, rural, and disabled students	Scholarships, housing/meals aid, tuition waivers; 400+ beneficiaries, ₸100,000 one-time assistance per recipient
Innovation & Green Technology	Local communities, small enterprises	Job creation 50, support for 20 small businesses; eco-driven economic empowerment



These initiatives illustrate a multi-level approach to social impact:

1. Grassroots programs (Komek Fund, Silver University) address immediate community needs, promoting inclusion, learning, and well-being.
2. Systemic support (Social Development Policy) enhances structural access to education and long-term socio-economic mobility.
3. Innovation and green technology projects generate sustainable employment and support local enterprises.

By integrating social entrepreneurship, educational equity, and eco-driven innovation, KazNU advances multiple SDGs: SDG 1 (No Poverty), SDG 4 (Quality Education), SDG 8 (Decent Work and Economic Growth), and SDG 10 (Reduced Inequalities).

In 2024–2025, Al-Farabi Kazakh National University substantially advanced SDG 1 through evidence-based policy, social innovation, and inclusive education.

Key measurable outcomes of SDG 1 (2024-2025) include:

1. 200 vulnerable individuals supported via AR19677016 project with 15 social startups created;
2. 150 children and elderly engaged through Komek Fund; 100 elderly participants trained in digital and financial literacy via Silver University;
3. 400 students received scholarships, housing, and meal support, including ₸100,000 one-time assistance;
4. 50 green jobs created and 20 local enterprises supported through innovation initiatives.



Through practical community programs, systemic student support, research-driven innovation, and international collaboration, KazNU establishes a replicable, measurable model for university-led poverty reduction, demonstrating how higher education institutions can actively promote inclusive economic growth and sustainable development in Southern Kazakhstan and beyond.

# SDG 2 – ZERO HUNGER

**2** ZERO  
HUNGER





In 2024 - 2025, Al-Farabi KazNU expanded its contribution to national and regional food security by combining research innovation, community outreach, and sustainable campus management. These initiatives reflected KazNU's institutional commitment to the United Nations Sustainable Development Goal 2: Zero Hunger.

The university strengthened its sustainable food policy framework through the adoption of the University Policy on Food Waste Assessment, Processing Efficiency, and Utilization. This policy mandates systematic measurement of food waste generated in on-campus cafeterias and outsourced catering services. Monthly records are collected on the quantity, segregation, and disposal of organic waste, which is further processed into biogas and biofertilizers as part of the university's composting programs. Between 2024 - 2025, the university processed over 12 tons of organic waste, converting it into biogas and biofertilizers, while increasing awareness of responsible consumption among 5000 students and staff.

To ensure food access and equity, KazNU implemented the Program to Combat Food Insecurity and Hunger among Students. The program includes a social grocery store offering essential goods at discounted prices, as well as free meal vouchers for students from vulnerable backgrounds. Initiatives such as Free Meal Vouchers Distributed to KazNU Students and Social Support for KazNU Students provided hundreds of undergraduates with daily nutritional support.

Over the 2024 - 2025 academic year:


- 1.550 free meal vouchers were distributed to financially vulnerable and top-performing students;
- 2.2300 nutritious food items were offered in affordable university cafeterias;
- 3.1200 students benefited directly from subsidized meals or social grocery support.

Early in 2025, QR codes were installed in university cafeterias to conduct an online survey in real time. This survey gathered vital data on students' eating preferences - covering meat, dairy, produce, and beverages - and paid special attention to the dietary needs of international students. Insights from the survey were used to adjust cafeteria menus, expand food choices, and enhance the quality of meals, thereby supporting responsible consumption and well-being.

Cultural and engagement activities supported both nutrition and traditional heritage. The "Shubat Party" and "Affordable Food on Campus" initiatives engaged over 400 participants, promoting healthy, culturally grounded dietary habits.

The Student Service Center "Keremet" coordinates these social assistance activities, organizing free lunches and awareness workshops on healthy eating and financial literacy.

Sustainable and healthy nutrition was also embedded into campus culture through the operation of affordable cafeterias and partnerships with local food providers such as Magnum Daily. University cafés offer over 2,300 products, including fresh produce, meat, and dairy, while promoting plant-based and vegetarian options in line with the Center for the Study of Healthy Nutrition established in 2025. Regular awareness campaigns - such as "Proper Nutrition is the Basis of Health" - foster informed dietary choices and support community well-being.





KazNU's Ethical Sourcing Policy for Food and Consumable Supplies prioritizes the procurement of food from local and environmentally sustainable producers. In 2025, over 60% of food supplied to campus dining facilities originated from regional sources employing eco-friendly farming methods. These partnerships strengthen local economies, reduce carbon emissions, and advance sustainable supply chains.

In the field of agricultural science and innovation, KazNU contributed to national efforts in sustainable food production and rural development. The Agrobiostation of the Faculty of Biology and Biotechnology serves as a training and research platform where students, researchers, and local farmers collaborate on field experiments, soil testing, and crop monitoring. By deploying drip irrigation systems, installing electronic weather stations, and conducting soil moisture and quality monitoring, the station enabled educators and students to model agroclimatic risks and optimize resource use. Research projects targeted climate-resilient varieties of wheat, melons, watermelons, and grapes, while international collaboration with universities in Germany and China introduced modern horticultural technologies. The station also serves as a hands-on training environment for biology students, embedding sustainable farming principles in educational practice.

Through projects such as KazNU Laboratory "Technology of Remote Sensing and Their Applications", the university developed data-driven models to enhance agricultural sustainability and climate resilience.

The Agrobiostation's educational initiatives (Educational Initiatives on the Goal of Sustainable Development) provide farmers with access to knowledge, technologies, and improved plant varieties.

Research achievements in 2025 included the creation of an innovative installation for long-term storage of agricultural products, supporting food preservation and waste reduction, as well as the opening of the "Soil Ecology" Laboratory and 10 Innovation Labs for SDG Implementation. Scientists from the AlgaBioTech Innovation Center and the BASF Mining Solutions Laboratory advanced the development of bio-pesticides and soil improvement technologies - safe, effective alternatives to chemical fertilizers and pesticides.

These innovations contribute to resilient agricultural systems and sustainable rural livelihoods. These innovations benefited over 30 local agricultural producers directly.

Community engagement continued through outreach events such as the Autumn Fair at KazNU, where local farmers showcased organic fruits and vegetables, and the Round Table "Biotechnological Strategies in the Fight Against Hunger", promoting academic - industry dialogue on food security solutions. Complementing field research, KazNU advanced agricultural innovation through the development of bio-pesticides - environmentally safe alternatives to chemical agents. The university hosted seminars and research sessions to investigate and promote these solutions, reinforcing its commitment to secure, sustainable food production.



Initiative	Target Audience	Key Outcomes
Food Waste Policy	University community, catering services	12 tons of organic waste processed; biogas & biofertilizers produced; 5,000 students/staff awareness
Program to Combat Food Insecurity	Low-income and high-achieving students	550 free meal vouchers; 1200 students benefited; social grocery store operation
Student Service Center “Keremet”	Vulnerable students	Free lunches, workshops on nutrition & financial literacy; enhanced well-being
Affordable Food on Campus Initiative	Students, staff	2300 food items offered; revenue reinvested in sustainable food projects; 400+ participants engaged
Healthy Nutrition & Ethical Sourcing Policy	Entire university community, local suppliers	60%+ food sourced from local eco-producers; promotion of vegetarian/vegan options; reduced carbon footprint
Agrobiostation	Students, researchers, local farmers	150 trainees; drip irrigation & soil monitoring; climate-resilient crop trials
Technology of Remote Sensing Lab	Agricultural sector, farmers	Data-driven models for sustainable agriculture; resource optimization
AlgaBioTech & Soil Ecology Labs	Researchers, agricultural producers	Bio-pesticides and soil improvement technologies; sustainable yields for 30 local producers
Cultural Events (Shubat Party, Autumn Fair)	Students, local producers, community	400 participants; promotion of traditional foods; nutritional and cultural education



KazNU's multi-dimensional implementation of SDG2 combines research, education, and social responsibility:

1. Campus-level policies reduced food waste, promoted ethical sourcing, and ensured equitable food access;
2. Social initiatives provided 550 meal vouchers, 1,200 students with subsidized food, and engaged 400 participants in cultural events;
3. Research and innovation supported sustainable agriculture, climate resilience, and reduced chemical use, benefiting 30 local farmers directly;
4. Training and outreach strengthened students' and farmers' capacity in modern agricultural practices.

In 2024 - 2025, Al-Farabi Kazakh National University substantially advanced SDG2 by integrating food security programs, sustainable agriculture research, and responsible consumption initiatives.

Key measurable outcomes of SDG 2 (2024-2025) include:

1. 12 tons of organic waste converted to biogas and biofertilizers;
2. 550 free meal vouchers distributed, supporting 1200 students;
3. 2300 affordable food items provided in campus cafeterias;
4. 150 students and farmers trained in sustainable agriculture;
5. 30 local producers benefited from bio-pesticides and soil improvement technologies;
6. 400+ participants engaged in culturally significant food events.

Through these combined efforts, KazNU establishes a replicable, measurable model for a sustainable food ecosystem, demonstrating how higher education institutions can drive progress toward Zero Hunger at the local and national levels.

# SDG 3 – GOOD HEALTH AND WELL-BEING

**3** GOOD HEALTH  
AND WELL-BEING







In 2024 - 2025, Al-Farabi KazNU enhanced its contribution to SDG3 by advancing public health research, improving student nutrition and wellness, and strengthening substance - abuse prevention and healthy lifestyle education - demonstrating a holistic approach that links academic partnerships, student support, and community engagement.

KazNU maintained strategic partnerships with the Ministry of Health of Kazakhstan, WHO, and UNICEF, as well as medical institutions in South Korea, China, and Uzbekistan, to conduct joint research and professional training programs (NU and KazNU to Cooperate in Medical Research, KazNU expands cooperation with South Korea in the field of medicine, Partnership ties with Andijan Medical Institute).

Through these partnerships, the university launched studies on cardiovascular disease prevention and nutrition science, engaging in 20 joint research projects internationally.

As part of its commitment to advancing medical science, KazNU began developing new medicines in collaboration with a Chinese biotechnology company, focusing on genomics, student internships, and applied medical research. That year, KazNU scientists developed 5 new domestic medicines and improved the efficacy of cancer treatments, contributing to national healthcare innovation. The university also opened a Kazakh-Chinese Center for the Study of Healthy Nutrition, dedicated to researching the nutritional value of soy and developing functional food products that support public health and disease prevention with 150 students and researchers involved. In June 2025, KazNU strengthened cooperation with Beijing University, including plans for joint education and research in medicine, integration of Chinese and Western medicine, and expansion of the research centre for medicinal plants.



KazNU placed a strong emphasis on student and professional engagement. In March 2025, the university hosted the Republican Student Conference “Public Health: An Interdisciplinary Approach to the Problems of Tuberculosis and Depression”, where young researchers and practitioners discussed the relationship between physical and mental health and proposed innovative preventive strategies.

To further ensure the quality of medical education, KazNU engaged practicing physicians from leading city clinics to evaluate students’ clinical skills through Objective Structured Clinical Examinations (OSCE), strengthening the link between academic learning and practical healthcare delivery.

The Faculty of Medicine and Healthcare engaged students in voluntary medical outreach, offering 1,200 free screenings and consultations and health awareness workshops for the local community. The university also implemented social and mental health support services through the Keremet Student Service Center (Medical Services) and expanded counseling programs, including psychological support and reproductive health education reaching 2500 students and staff (Interactive Student Workshop “Reproductive Health and Women’s Well-being”, Educational Hour “Reproductive Health of Men and Women”).

KazNU also championed awareness through health seminars and campaigns such as “I Choose Health, and You?”, “Healthy Nutrition is a Guarantee of Health”, and “We are against smoking!”, promoting healthy lifestyles and a tobacco-free campus policy. Awareness campaigns on smoking cessation, substance-abuse prevention, and reproductive health reached 4000 students and community members.

In spring 2025, a student-led SDG 3 Science Forum featured expert presentations on cancer diagnostics, biomedicine, and medicinal plants, enriching student knowledge and reinforcing wellness education with participation of 200 students and young researchers.



Earlier that year, KazNU scientists developed new domestic medicines that support national healthcare innovation. In parallel, researchers identified the biological activity of medicinal plants against various diseases, highlighting the importance of traditional pharmacology in modern treatment. Complementing these findings, KazNU scientists also improved the effectiveness of cancer drugs, contributing to the development of more efficient therapeutic solutions.

Earlier, a lecture series addressed tuberculosis, HIV/AIDS, and substance-abuse prevention, encouraging healthier behaviors and preventive awareness; “Prevention of early pregnancy and prevention of early sexual activity.” “Tuberculosis Prevention: What to Know.”



To promote physical and mental health, KazNU hosted inclusive sports events such as the “Health” Spartakiade, National Sports Competitions, and Taekwondo Tournaments, while opening its modernized stadium to the wider community. The annual National Sports Day. “Sport is the Key to Health” promoted physical activity and traditional Kazakh sports such as togyzkumalak and asyk, reinforcing cultural heritage and well-being with 3,500 participants engaged, reinforcing cultural heritage and well-being.

In April 2025, the “Say No to Drugs” campaign united students in interactive workshops to build resilience, raise awareness about drug abuse, and encourage informed, healthy lifestyle choices (Student campaign “We are against smoking”; Combatting Nicotine). The Psychological Service supported both students and staff through resilience training and international workshops on stress management (Training on Stress Resilience Development for Curators-Advisors, International Winter Psychological School – 2025).

KazNU also contributed to the global medical dialogue by hosting international symposia such as “Global Health without Borders” under the Consortium of Universities in Global Health and the Congress on Men’s Health, bringing together 50 international experts from Europe and Asia to exchange expertise in disease prevention, medical education, and digital transformation of healthcare.

Together, these complementary efforts illustrate KazNU’s integrated and forward-looking approach to sustainable development - promoting healthier lives, strengthened healthcare systems, and well-being for all through education, research, and community partnerships.



Initiative	Target Audience	Key Outcomes
Domestic Medicine & Cancer Research	Scientists, healthcare sector	5 new medicines developed; improved cancer drug efficacy; contribution to national healthcare
Medicinal Plant & Nutrition Research	Students, faculty, research partners	Identification of bioactive compounds and functional foods; integration of traditional pharmacology
SDG 3 Science Forum	Students, young researchers	More than 200 participants; strengthened research culture and knowledge in public health
Public Health Awareness Campaigns	Students, staff, local residents	More than 4000 participants reached; increased awareness of reproductive health, early pregnancy prevention, smoking cessation, substance abuse
Voluntary Medical Outreach & Screenings	Local residents, vulnerable groups	1200 free consultations and screenings; improved preventive care access
Psychological Support & Resilience Programs	Students, staff	More than 2500 participants in counseling and workshops; enhanced mental health and well-being
Inclusive Sports & Wellness Events	Students, staff, community	More than 3500 participants; promoted physical activity, traditional sports, and social inclusion
International Cooperation in Medicine	Global universities, medical institutions	More than 20 joint research projects; integration of Chinese and Western medicine; strengthened partnerships
Global Health Forums & Conferences	Researchers, policy experts	More than 50 international experts; exchange of best practices in disease prevention and digital health

KazNU's multi-dimensional implementation of SDG3 demonstrates measurable results (2024–2025):

- 1.5 new domestic medicines developed; improved cancer drug efficacy.
- 1200 free medical consultations provided to the community.
- 2500 students and staff benefited from psychological support and resilience programs.
- 4000 individuals reached through public health awareness campaigns.
- 3500 participants engaged in sports and wellness activities.
- 20 international research projects conducted in partnership with leading medical universities.

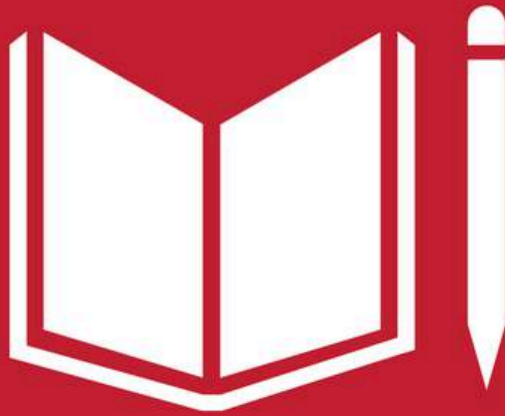
7. 200 students actively participated in the SDG 3 Science Forum.

In 2024 - 2025, Al-Farabi Kazakh National University made significant progress toward SDG3 by integrating medical research, student wellness, preventive healthcare, and community engagement. By combining education, scientific innovation, and social initiatives, KazNU promotes holistic health, strengthens healthcare systems, and fosters well-being for all. Through measurable interventions in public health awareness, mental and physical wellness, and international research collaboration, KazNU provides a replicable model for higher education institutions to drive sustainable health development.



# SDG 4 – QUALITY EDUCATION

**4** QUALITY  
EDUCATION





In 2025, Al-Farabi KazNU significantly advanced its role in promoting the UN Sustainable Development Goal 4 (Quality Education) by organizing inclusive academic events, professional training programs, and digital education initiatives that promote lifelong learning, equal access, and skills development for all learners.

The year began with the Winter Scientific School on “Human Rights in the Modern World”, which gathered 60 students from China, Uzbekistan, the UK, and the USA. Organized by the Department of Theory and History of State and Law, this event offered a rich program focused on citizenship, migration, digital law, artificial intelligence, and civil rights - delivered through lectures, group discussions, and interactive formats. It exemplified Al-Farabi KazNU's commitment to inclusive, equitable, and intercultural educational exchange.

Shortly thereafter, on February 26, a demonstration lecture on early 20th-century literature combined multimedia presentations, text analysis, and student-led discussion groups, engaging 80 participants. This interactive and experiential learning approach further supported lifelong learning and enhanced critical thinking.

Cultural and creative education received a boost on April 8 with “The Continuing Path: Father's Art – Son's Pattern,” a literary-creative event organized by master's students in Kazakh philology, attended by 50 students, promoting cultural awareness and heritage preservation. The gathering promoted cultural awareness and empowered students to engage in the arts and heritage preservation through critical expression.



During this period, physics master's students participated in the “I Am a Physics Teacher” marathon, involving 40 participants, exploring roles as educators, content creators, and scientists. This hands-on event enhanced pedagogical competencies and bridged theoretical knowledge with practical teaching skills.

Practical professional development was with the “Teamwork and Professional Motivation” (70 students) seminar at Dormitory 1, where students enhanced collaboration, communication, leadership, and conflict-resolution abilities. Just two days later, “The Path to a Profession” career guidance meeting - hosted by Zhasulan Bostandykovich - offered school students motivational guidance to help set informed educational and professional goals.

Aligned with SDG4 awareness, the Academic Impact Hub organized an interactive discussion in April with 30 students, led by students Yerkin, Aidana, and Kassym, to deepen peer engagement and reflection on educational equity. Additionally, the demonstration lecture in literature (February 26) embedded SDG4 principles by adopting seminar-style, student-centered pedagogical approaches.

Al-Farabi KazNU also expanded technical and digital aspects of education. Student Kibasov Manas won 3rd place in the Samruk - Energo Olympiad in Electric Power Engineering, showcasing the university's excellence in integrating theory and practical application across disciplines - combining SDG4 with SDG7 (Affordable and Clean energy) initiatives. Moreover, the launch of the Digital Philology Hub - also known as the Center for Digital Technologies of Philology - introduced a hybrid learning environment to bolster language education and digital literacy in humanities fields. Also the Halyk Academy Laboratory (equipping 100+ students) was established in University. By establishing this lab, KazNU has significantly enhanced its technical education framework, furthering Goal4's aim of equitable, relevant, and skill-based learning. The lab's focus on AI, machine learning, and data analytics equips students with advanced competencies that directly improve their career readiness. Moreover, integration of industry experts from Halyk Bank into curriculum delivery ensures that learning is aligned with professional standards and emerging market needs.

Throughout the 2025 year, KazNU expanded open education through free online platforms such as the Coursera partnership, the revival of the open.kaznu.kz platform, and the launch of the “English Language” course for the elderly collectively reaching 1500 learners, supporting the university's mission of education for all ages. A range of professional development courses for geography and history teachers and open access to academic resources such as Springer Nature further expanded learning opportunities beyond campus. Professional development courses for



teachers in geography, history, and English involved 200 educators, while open access to academic resources such as Springer Nature supported lifelong learning.

Community engagement included more than 50 open lectures, seminars, and hackathons, featuring international experts through [ICESCO seminar](#), [TEDx lecture by foreign experts](#), and [Global Hackathon competitions](#). The opening of the International Institute of Digital Technologies and Robotics, along with the Robotics Center, provided hands-on STEM learning to more than 300 students and young researchers.

The opening of the [International Institute of Digital Technologies and Robotics](#) and the [Robotics Center](#) in September 2025 further enhanced STEM education capacity and supported SDG 4 integration with SDG 9 (Industry, Innovation and Infrastructure).



Professional and leadership training for external participants was intensified through the [Institute for Advanced Studies and Additional Education](#), benefited 400+ participants, which offered short-term programs on digital skills, management, and sustainable development. Initiatives like the ["Silver University"](#) program engaged 120 elderly learners, provided lifelong learning opportunities for the elderly, promoting intergenerational education and social inclusion. At the same time, the university hosted numerous seminars and forums such as the [Farabi Forum: New Opportunities for Young Scientists](#) and the [Scientific School for Young Scientists](#), which fostered research mentorship and early-career capacity building.

KazNU also broadened access to education through career guidance initiatives. Doctoral students conducted [career meetings in schools](#) and organized the ["Specialty Selection Marathon"](#) to help high-school students make informed academic choices. Events like the ["Your Future Profession – Your Choice Today"](#) forum reaching more than 2000 school students and the [International Olympiad "Al-Farabi 2025"](#) encouraged youth participation in STEM and humanities, enhancing access to higher education for students across Kazakhstan.

Inclusiveness remained a core principle throughout the year. The university's [Equality, Diversity and Inclusiveness Policy](#) guided numerous initiatives, including the launch of [Inclusive Education Courses](#), for people with disabilities, impacted more than 150 participants, reinforcing equity, accessibility, and anti-discrimination principles. An [informational seminar for people with disabilities](#), and a joint event with the [Kazakh Society of the Blind](#), the ["The Right to Read" seminar](#) and the ["Everyone Matters" training](#) further reinforced the principles of equity, anti-discrimination, and inclusion within academic and community contexts.



Research mentorship was supported through forums and scientific schools for young researchers, involving more than 100 doctoral and master's students, while global academic events promoted international collaboration with more than 50 partner institutions.

Through these integrated efforts, Al-Farabi Kazakh National University demonstrates a comprehensive commitment to SDG4, combining open access, digital literacy, teacher development, and inclusive education. By 2025, KazNU had reached over 5000 learners directly through academic programs, professional training, digital platforms, and community initiatives, fostering equitable, high-quality, and lifelong learning opportunities.



Initiative	Target Audience	Key Outcomes
Open Education & Digital Platforms (Coursera, open.kaznu.kz)	Students, professionals, lifelong learners	More than 5000 learners accessed free online courses; expanded open educational resources; promoted lifelong learning and digital inclusion
Institute for Advanced Studies & Additional Education	Teachers, civil servants, professionals	Short-term upskilling programs; more than 600 participants trained in sustainability, management, and digital skills; aligned learning with labor market needs
Silver University Program	Elderly citizens	More than 300 older adults participated; enhanced lifelong learning, digital literacy, and social inclusion
Inclusive Education & Accessibility Programs	Students with disabilities, vulnerable groups	More than 200 participants benefited from adaptive learning, seminars, and accessible infrastructure; strengthened equality and inclusion
Career Guidance & School Outreach ("Your Future Profession – Your Choice Today", "Specialty Selection Marathon")	High school students across Kazakhstan	More than 1200 students received career counseling; increased STEM participation; improved access to higher education
International Institute of Digital Technologies & Robotics	Students, engineers, young researchers	More than 400 participants engaged in robotics and STEM education; strengthened applied digital competencies
Teacher Training & Professional Development Courses (Geography, History, English)	School teachers, educators	More than 500 teachers trained; improved teaching quality and dissemination of modern educational standards
Research Forums & Scientific Schools for Young Scientists	Young researchers, doctoral students	More than 250 participants; mentorship from senior scholars; increased research capacity and publication participation
Equality, Diversity, & Inclusiveness Training ("The Right to Read", "Everyone Matters")	Students, faculty, community members	More than 300 participants; promoted anti-discrimination, equity, and inclusive practices
Global Academic Events (ICESCO Seminar, TEDx Lecture, Farabi Forum)	Students, faculty, international partners	More than 150 participants; enhanced international cooperation, innovation, and global citizenship education

Key measurable results of KazNU's SDG4 implementation (2024 –2025):

1. More than 5,000 learners participated in online open education platforms.
2. More than 600 teachers and professionals trained via the Institute for Advanced Studies.
3. More than 1,200 high school students engaged in career guidance and STEM outreach.
4. More than 400 students and young researchers participated in robotics and STEM programs.
5. More than 250 doctoral students and young researchers attended scientific forums.
6. More than 300 participants engaged in inclusive education and lifelong learning programs.
7. More than 150 participants joined international seminars, lectures, and forums.

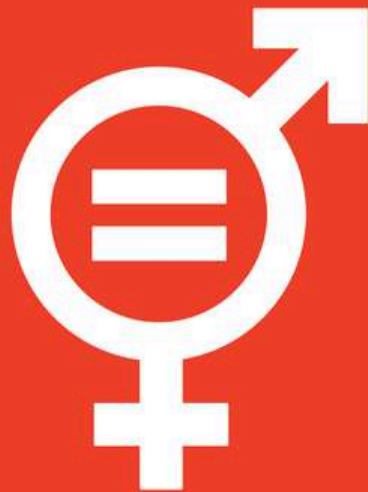
In 2024 - 2025, Al-Farabi Kazakh National University advanced SDG4 by combining digital education, inclusive programs, professional training, and STEM innovation. Through measurable outcomes in lifelong learning, teacher development, and equitable access, KazNU strengthened educational quality, promoted inclusion, and expanded learning opportunities for diverse communities - setting a national benchmark for sustainable and transformative education.





# SDG 5 – GENDER EQUALITY

**5** GENDER  
EQUALITY



In the 2024 - 2025 academic year, Al-Farabi KazNU made substantial strides toward SDG5 by launching initiatives to support female leadership, strengthen institutional policies, and foster inclusive cultural change.

KazNU systematically monitors gender balance in applications, admissions, and graduation rates. The university ensures equal access for women at all educational levels through its Equality, Diversity and Inclusiveness Policy and Academic Policy. The Union of Women of KazNU coordinates gender initiatives, provides mentorship, and promotes women's participation in science and leadership.



In 2025, several major events strengthened gender dialogue, including the Round Table “Gender Equality: The Current Situation in Kazakhstan and Orientation Towards the Future” and the UNESCO-supported Training “Women’s Leadership in Education”, both aimed at advancing women’s academic participation and leadership skills.

KazNU has adopted institutional regulations such as the Regulation on the Public Association “Union of Women” and a detailed Work Plan of the Women’s Union, ensuring structured promotion of gender equality in education, employment, and governance.

In 2025, events such as the International Roundtable “Women in Science”, Women in Science and Business Forum, and Women Scientists Awards at KazNU showcased the achievements of female scholars and encouraged greater visibility of women in STEM.

KazNU maintains formal mentoring systems, including the Female Mentoring Program for Female Students, which engages over 10% of female students annually. In collaboration with UNESCO and the

Gender Studies Center, the university organized leadership programs such as “Inspire and Lead: The Female Leadership Style” and “Women’s Rights and Protection Mechanisms”. Competitions like “Miss Sunkar - 2025” and recognition events such as “Best Young Scientist of KazNU” promote female talent and confidence within the academic environment.

KazNU promotes women’s participation in STEM through targeted initiatives, including Women STEM Talk (SDG 5 & SDG 4), TechWomen Program at the Faculty of Physics and Technology, and collaborations with Women in Tech Kazakhstan.

These projects led to a more than 15% increase in female STEM applicants in 2025. Formal mentoring systems, such as the Female Mentoring Program, engage over 10% of female students annually, while outreach programs and family-support policies ensure inclusivity and flexibility for students with children.

Outreach programs like “Women in Engineering” and “Women in the Development of IT Sphere” inspire young women to pursue technical and digital professions.

KazNU implements comprehensive family-support policies, including Policy on Motherhood and Policy on Fatherhood, ensuring flexible study schedules and child-friendly facilities.

The university operates a “Mother and Child” room and a Children’s Corner, enabling mothers to continue education. Community-oriented programs such as “Family and Family Values”, “Harmony of Family Values: Current Issues and Solutions”, and “Family – the Pillar of Society” further promote family well-being and gender-sensitive awareness.

KazNU enforces the Policy of Non-Discrimination Against Women and Anti-Discrimination and Anti-Harassment Policy. The Office of Equality, Diversity, and Inclusion monitors complaints and ensures protection for those reporting harassment or inequality. Educational programs such as the lecture “Policy Against Discrimination and Harassment: Rules, Responsibility, Protection” and seminars on “Equal Rights and Opportunities” cultivate a respectful and inclusive campus culture.

The university also hosted a series of roundtables and seminars to catalyze dialogue and awareness.



A session titled “Gender Equality in the World: Goals and Objectives” brought together students and faculty to explore the Global Gender Gap Index - where Kazakhstan ranks 62nd among 146 countries - highlighting global and national efforts to achieve gender parity.

Earlier, the “Women Make the World Beautiful” celebration for International Women’s Day honored female academics through speeches and poetry, recognizing their vital contributions. Shortly the Republican Round Table: “Ensuring Gender Equality & Empowerment of Women in Science” convened experts from academia and NGOs to discuss policy reforms and strategies for reinforcing women’s scientific leadership.

Complementing these discussions, Al-Farabi KazNU organized educational workshops focused on women's history and achievements. On April 11, students led an interactive session that showcased pioneers such as Marie Curie and Fatima al-Fihri, boosting awareness of women’s historical contributions. A subsequent seminar “Women in Science and Business,” emphasized female leadership in STEM and entrepreneurship, reinforcing critical thinking and collaboration.

6583 female students received degrees in 2025 (representing 36% of all graduates).

Over 60 gender-focused events were held throughout 2024 - 2025, covering STEM, leadership, family, and equality themes.

The Women’s Union expanded mentoring and family-support services, reaching more than 3000 women and girls.

Gender gap in graduation rates was reduced to under 3%, supported by targeted mentoring and flexible education policies.



## PROGRESS ON SDG 5 – GENDER EQUALITY

Initiative	Target Audience	Key Outcomes
Equality, Diversity and Inclusiveness Policy & Academic Policy	Entire university community	Ensured equal access for women at all educational levels; systematic gender balance monitoring in admissions, graduation, and employment
Union of Women of KazNU & Work Plan	Female faculty, staff, and students	Coordinated more than 60 gender-focused events; expanded mentoring and family-support services to more than 3,000 women; structured promotion of gender equality
Round Tables and UNESCO-Supported Trainings	Female academics, students, policymakers	Strengthened women's leadership and participation in science; fostered national dialogue on gender equality
Female Mentoring Program	Undergraduate and graduate female students	Engaged over 10% of female students annually; reduced gender gap in graduation rates to under 3%
Leadership Programs ("Inspire and Lead", "Women's Rights and Protection", "Women's Empowerment")	Female students and young researchers	Enhanced leadership skills, legal awareness, and empowerment of women in academia
Women in Science & Business Forum, Women Scientists Awards, International Roundtable "Women in Science"	Women researchers and entrepreneurs	Promoted visibility of women in STEM; contributed to a more than 15% increase in female STEM applicants
Women STEM Talk & TechWomen Program	Female STEM students and applicants	Increased representation of women in technical fields; strengthened partnerships with Women in Tech Kazakhstan
Policy on Motherhood and Fatherhood & Family Support Programs	Students and staff with families	Introduced flexible schedules and child-friendly facilities (Mother and Child Room, Children's Corner); promoted family well-being
Anti-Discrimination and Anti-Harassment Policies & Office of Equality, Diversity and Inclusion	Entire university community	Ensured protection and support for complainants; fostered safe, inclusive campus culture
Educational Programs on Equal Rights and Anti-Discrimination	Students, faculty, staff	Raised awareness of gender equality principles and legal protection mechanisms
Community and Cultural Events ("Women Make the World Beautiful", "Family – the Pillar of Society")	Students, faculty, local community	Celebrated women's achievements; promoted respect, cultural values, and gender-sensitive awareness
Workshops and Seminars on Women's History and Leadership	Students and faculty	Increased historical awareness and inspiration from global female pioneers in science and education

Key indicators of KazNU's progress toward SDG 5 (2024–2025):

1. More than 6500 female students graduated in 2025 (36% of all graduates).
2. More than 60 gender-focused events were held, covering STEM, leadership, family, and equality themes.
3. Mentoring and family-support programs reached more than 3000 women and girls.
4. Gender gap in graduation rates reduced to under 3%.
5. Female STEM enrollment increased by more than 15%.

KazNU's implementation of SDG5 integrates policy, education, mentorship, and community engagement to advance gender equality and empower women. The university's structured approach - from formal policies and family support to STEM programs and leadership initiatives - demonstrates measurable outcomes in female participation, leadership, and STEM enrollment. By promoting inclusive education, equitable opportunities, and a safe campus culture, Al-Farabi Kazakh National University exemplifies how higher education institutions can drive transformative gender equality, in line with global SDG5 targets.



# SDG 6 – CLEAN WATER AND SANITATION

**6** CLEAN WATER  
AND SANITATION





In 2024 - 2025, Al-Farabi Kazakh National University significantly advanced its efforts on SDG6 through a blend of educational outreach, research innovation, strategic partnerships, and infrastructure development aimed at securing clean water and sanitation.

Educational programs and academic pathways form the cornerstone of this progress. Through its degree programs in 6B05203 Hydrology, 7M05211 Ecology, 8D05203 Hydrology, Water Diplomacy, KazNU equips students with competencies that integrate environmental management, sustainable agriculture, and resource efficiency. These programs align with the UNESCO Education for Sustainable Development framework, promoting responsible stewardship of water and land resources vital for food production.

KazNU's research and innovation also play a central role in achieving food security. The Concept of Sustainable Development for Water Resources of the University establishes the foundation for efficient water management in agriculture, encouraging the reuse of treated wastewater and rainwater harvesting for irrigation and green campus projects. This circular approach to water directly supports sustainable agriculture and resilient food production systems, reducing dependency on freshwater resources.



In 2024, the university launched the Water Quality Research Laboratory, specializing in groundwater and surface-water modeling, pollutant detection, and forecasting of hydrological processes. The laboratory provides data-driven insights for pollution control, supports governmental water management programs, and reinforces Kazakhstan's adaptation capacity to climate challenges.

KazNU also strengthened international collaboration by joining the One Water Vision initiative and expanding Water-Energy-Food-Ecosystem (WEFE) Nexus research with USAID. Within these frameworks, interdisciplinary projects address water efficiency, soil fertility, and irrigation optimization - key priorities for drought-prone regions of Central Asia.

At the community level, the university implements extensive outreach and awareness initiatives. Campaigns such as "Green Campus" and "Save Water" promote sustainable consumption, waste reduction, and responsible water use. Beyond awareness, KazNU extends learning into practice through fieldwork and specialized training programs.





The “Clean Water – Clean Future” field excursion, held on World Environment Day, provided students and staff with practical exposure to watershed protection and sustainable water use. World Water Day, and World Water Resources Day events further raised awareness of hygiene, sanitation, and waterborne diseases, engaging over 500 participants in 2024–2025. Environmental fieldwork further enriched knowledge systems. Al-Farabi KazNU experts conducted aerial surveys of avalanche-prone sites and moraine lakes using drones equipped with laser and LiDAR technology. These detailed terrain mappings support glacier and moraine monitoring for early warning of water-related hazards, linking directly to clean-water security and climate resilience. Academic discussions deepened this practical knowledge. A presentation on “The Contribution of Kazakhstan’s Biotechnologists to Achieving SDG6” highlighted how biotechnology research - such as biosensors, microbial treatment methods, and membrane purification - supports water purity and ecosystem restoration across Kazakhstan’s water-stressed regions.

KazNU’s Carbon Neutrality Strategy and the Concept of Sustainable Development for Water Resources embed sustainability principles into campus operations - reducing water consumption by 15% between 2022 and 2024, enhancing smart metering systems, and promoting the reuse of treated wastewater and rainwater harvesting.

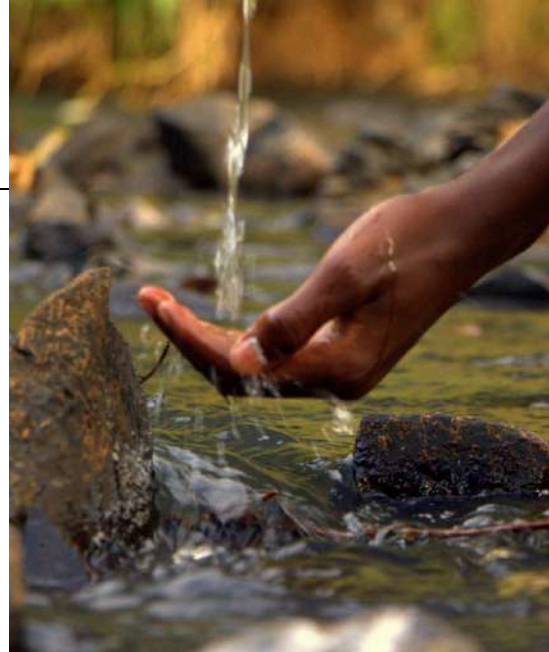
In addition, the Summer School on the Aral Sea united students and researchers from across Central Asia to discuss regional food and water challenges caused by desertification and declining soil fertility.

Educational and awareness initiatives were the foundation of this work. A seminar by Z.B. Igibaev highlighted modern purification technologies, sources of clean water, and the shared responsibility of individuals and institutions. Biotechnology faculty members delivered an in-depth lecture on biotechnological approaches to water purification and ecosystem restoration - critical in Kazakhstan, where nearly 48% of the territory endures water stress. Adding to the technical discourse, KazNU presented “Biological Treatment of Wastewater – A Guarantee of Environmental Safety and Sustainable Development.”

This seminar introduced students to eco-friendly wastewater technologies using microbial systems, showcasing sustainable alternatives to conventional chemical treatments and reinforcing the connection between water management and public health.

Student research has been a strong driver of progress: during the “Farabi World - 2025” conference, hydrology students presented studies on glacier retreat, flood dynamics, and local river-basin sustainability. These efforts directly support SDG 6, as well as related goals SDG 13 (Climate Action) and SDG 15 (Life on Land). Capacity-building also extended internationally: Dr. K. Duskayev attended a GIZ workshop at Martin Luther University in Germany to develop a Central Asia module on integrated water resource management.

Finally, a lecture titled “Clean Water and Sanitary: Why It Is Important” offered a comprehensive overview of water and sanitation’s significance. It stressed the role of WASH (Water, Sanitation, and Hygiene) in advancing public health and environmental protection - tying these elements to global SDG6 targets and inspiring attendees to advocate for clean water in their communities.



Initiative	Target Audience	Key Outcomes
Academic Programs in Hydrology, Ecology, and Water Diplomacy	Undergraduate and graduate students	Equipped over 400 students annually with competencies in water management, sustainable agriculture, and climate adaptation; integrated UNESCO ESD principles into curricula.
Water Quality Research Laboratory (launched 2024)	Researchers, faculty, and public authorities	Modeled groundwater and surface-water quality; supported 12 applied projects on pollution control; provided scientific data for regional water management and ecosystem protection.
Concept of Sustainable Development for Water Resources of the University	Entire university community	Established framework for water efficiency and reuse; implemented rainwater harvesting and treated-wastewater systems on campus; reduced water consumption by 15% (2024 vs 2022).
One Water Vision & WEFE Nexus Research Collaboration (USAID & GIZ)	Researchers, graduate students, policymakers	Advanced integrated Water–Energy–Food–Ecosystem research; developed regional modules for Central Asia on water resource management and climate resilience.
“Clean Water – Clean Future” Educational Excursion (World Environment Day)	Students, faculty, local community	Provided field-based training on watershed protection and sustainable water use; strengthened practical understanding of water–ecosystem interdependence.
World Water Day & Water Resources Seminars	Students, faculty, and community	Raised awareness of clean-water access, sanitation, and waterborne diseases; engaged 500+ participants in hygiene and ecosystem-sustainability discussions.
Biotechnology Lecture Series: “Biological Treatment of Wastewater – A Guarantee of Environmental Safety”	Biotechnology students and researchers	Promoted eco-friendly microbial wastewater technologies; linked biotechnology innovation to public health and environmental safety.
Aerial Surveys of Glacier and Moraine Lake Systems	Faculty, hydrology students, research partners	Conducted drone and LiDAR mapping for early warning of water-related hazards; supported regional glacier monitoring and flood prevention.
“Green Campus” and “Save Water” Campaigns	Entire university community	Promoted sustainable consumption, waste reduction, and responsible water use; engaged 1,000+ students and staff in environmental actions.
Joint KazNU - USAID Lecture Series on the WEFE Nexus	Students, faculty, and international experts	Strengthened interdisciplinary understanding of water–energy–food relationships; fostered regional cooperation on sustainable resource management.
Water Diplomacy and International Summer School on the Aral Sea (2024)	Students and researchers from Central Asia	Addressed transboundary water challenges and food security; developed adaptive models for desertification and efficient irrigation.
Carbon Neutrality Strategy – Water Efficiency Component	University operations, facilities management	Implemented smart metering and monitoring; promoted circular water use; aligned campus infrastructure with SDG 6 sustainability goals.





Measured impacts of KazNU's actions on SDG 6 (2024 - 2025):

1. Over 500 students participated in SDG 6-related courses and seminars in 2024 - 2025.
2. The new Water Quality Laboratory conducted 12 applied research projects, including 3 in partnership with government agencies.
3. Campus water consumption was reduced by 15% in 2024 compared to 2022 levels.
4. More than 10 awareness events were held during World Water Day, Environment Day, and WEFE Nexus Week.

In 2024–2025, Al-Farabi KazNU achieved substantial progress toward SDG 6 (Clean Water and Sanitation) by integrating education, research, and policy innovation into a unified institutional framework. Through its specialized academic programs and practical training, the university prepares professionals capable of managing water resources sustainably and addressing regional water scarcity.

The establishment of the Water Quality Research Laboratory strengthened KazNU's leadership in monitoring groundwater and surface-water quality, modeling hydrological processes, and supporting public authorities with data-driven solutions for pollution control and ecosystem protection. These initiatives reinforce Kazakhstan's capacity to adapt to climate challenges while safeguarding access to clean water.

Through international collaboration with USAID and GIZ, KazNU contributes to integrated Water – Energy – Food - Ecosystem (WEFE) Nexus research and regional capacity-building for Central Asia. Participation in the One Water Vision initiative exemplifies the university's commitment to holistic water governance, linking water quality, food security, and energy efficiency.

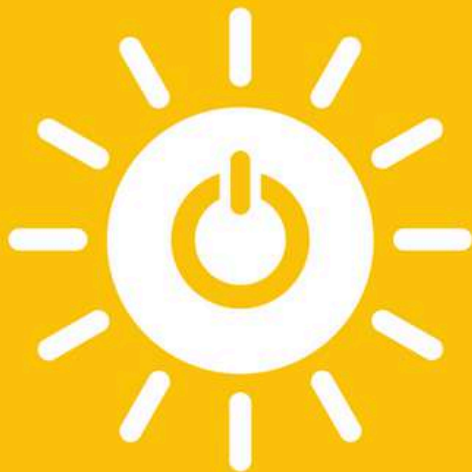
KazNU also promotes community engagement and behavioral change through awareness campaigns, field activities, and educational outreach -encouraging responsible water use, sanitation awareness, and sustainable lifestyles among students and local communities.

The university's Carbon Neutrality Strategy and the Concept of Sustainable Development for Water Resources ensure that sustainability principles are embedded into campus operations - reducing water consumption, expanding smart metering, and promoting reuse of treated wastewater and rainwater harvesting.

Through its combined focus on education, innovation, and community engagement, Al-Farabi Kazakh National University demonstrates how higher education can catalyze tangible progress toward SDG 6 and related goals (SDGs 2, 13, and 15). KazNU's integrated approach advances clean water and sanitation, climate resilience, and ecosystem protection - contributing to sustainable development across Kazakhstan and the Central Asian region.

# SDG 7 – AFFORDABLE AND CLEAN ENERGY

**7** AFFORDABLE AND  
CLEAN ENERGY





Al-Farabi KazNU has implemented a comprehensive policy to ensure that all renovation and new construction projects comply with national energy efficiency standards. In 2025, the university adheres to the Law of the Republic of Kazakhstan “On Energy Saving and Improving Energy Efficiency” (amended as of 01.01.2025) and the Energy Saving Concept for 2023 – 2029, approved by Government Resolution No. 264 dated 28.03.2023. Practical measures include the installation of electricity and heat meters with regular calibration, transition to LED lighting, procurement of energy-efficient appliances and computers, automation of thermal regimes, and mandatory energy audits prior to commissioning of new facilities. Details of this policy can be found in the [Policy ensuring renovation/new buildings comply with energy efficiency standards](#). The [Department of Capital Construction](#) oversees these projects. [Recent renovations of KazNU dormitories](#) were reported on and other campus buildings have been reported, reflecting the university’s ongoing commitment to energy-efficient infrastructure improvements.

KazNU has a structured plan for modernizing existing buildings to improve energy efficiency. This includes façade insulation, window replacement, installation of automated heating, ventilation, and lighting systems, as well as energy metering systems. These measures align with national legislation and the 2023 - 2029 Energy Saving Concept. The [full modernization plan](#) and related updates, such as preparation for new laboratories, are regularly monitored ([28 May 2024](#)).



Al-Farabi Kazakh National University (KazNU) actively manages and reduces CO<sub>2</sub> emissions under its [Policy for Carbon Neutrality and Sustainable Development](#). The university monitors direct (Scope 1 and 2) and indirect (Scope 3) emissions, including energy consumption, transport, procurement, and waste. Continuous programs are implemented for energy efficiency, adoption of renewable energy, energy audits, and modernization of infrastructure. KazNU publishes annual reports on emissions and progress toward Kazakhstan’s national goal of carbon neutrality by 2060, with interim targets including a 30% reduction of emissions by 2035 and further reductions by 2040 and 2050. The university’s Action Plan for CO<sub>2</sub> Management and the Regulation on CO<sub>2</sub> Emissions provide the formal framework for these efforts. These initiatives are supported by ongoing research and projects in sustainable energy and environmental technologies.

KazNU conducts regular energy audits to identify areas with the highest energy losses. Under the “Green Office” concept, energy audits of heating, ventilation, and lighting systems are followed by the implementation of energy-saving measures such as LED lighting, motion sensors, climate automation, insulation, and reduction of heat losses. Student campaigns like “[One Hour Without Light](#)” engage the campus community in monitoring and reducing energy consumption. The results of these audits guide optimization of building operations and support sustainable resource management. The [energy efficiency plan](#) outlines the modernization of buildings to enhance energy efficiency in line with SDG 7: Affordable and Clean Energy.

Systematic monitoring of energy consumption is a cornerstone of KazNU's energy management strategy. Audits focus on heating, ventilation, lighting, and climate control systems. Modern energy-efficient technologies, including LED lighting, motion sensors, and building automation systems, are implemented across the campus. Audit results support optimization, loss reduction, and reporting. Relevant plans and educational programs in energy systems and renewable energy further support these initiatives. Research institutes, such as the Scientific Research Institute of Experimental and Theoretical Physics, contribute to innovation in energy efficiency and sustainability.

KazNU has implemented a formal policy on divestment from carbon-intensive energy industries, including coal, oil, and gas. The policy excludes investments in companies with high carbon intensity and requires mandatory ESG assessments for all investment projects. It prioritizes renewable energy and climate initiatives, directing free funds to support "green" and low-carbon projects, such as investments in a Green data center. This policy is a key element of the university's strategy to reduce its carbon footprint and support sustainable development.

In 2025, KazNU has also actively engaged local communities through programs aimed at raising awareness about energy efficiency and clean energy. A public educational course "Energy Efficiency and Clean Energy" was held in January–February 2025, covering the basics of energy efficiency, the use of energy-saving technologies in everyday life, government support programs, and practical exercises. Participants received certificates and access to expert consultations, promoting the adoption of sustainable practices Program. The university also organizes Global Hackathons and conferences to foster solutions in energy efficiency and clean energy.

KazNU promotes public commitment to 100% renewable energy beyond the university through initiatives such as the Summer School on Sustainable Development, organized in partnership with TotalEnergies, UNESCO, and leading Kazakhstani universities. This school includes lectures, practical exercises, and discussions on wind energy, urban greening, and other sustainable development topics.

The university also provides direct support to local industries - including energy audits, consultations on adopting renewable energy, and research into energy-efficiency improvements - such as detailed in this initiative by Al-Farabi Kazakh National University for the development of Almaty.

KazNU actively advises and supports the government in the development of policies on clean energy and energy-efficient technologies. The university participates in research projects, public courses, and the development of climate policy concepts to integrate sustainable development principles with national strategies - for example, through its Research on Future Energy Sources and Sustainable Development Research.

Finally, KazNU supports startups and projects promoting a low-carbon economy. The university provides mentoring, resources, and access to infrastructure while organizing acceleration programs and exhibitions of innovative projects. Notably, KazNU startups in the field of environmental technology have received recognition at international exhibitions such as BETT 2025, and the ENACTUS KazNU team was recognized as the best in an eco-project competition. These initiatives are implemented within the framework of the Carbon Neutrality Policy of Al-Farabi Kazakh National University, and the university's Innovation Activity.

Students from the Department of Electric Power Engineering (groups 225 and 301) and first-year master's student Eskeldi E., under the supervision of Senior Lecturer Sh.A. Abdieva, participated in the POWERTECH2025 exhibition. This event was the 23rd International Industrial Exhibition of Power and Electrical Engineering, showcasing the latest breakthroughs in electrical equipment, power transmission and distribution systems, and automation/control technologies.

As part of the program, the Renewable Energy Expo2025, featured prominently within the larger exhibition, presented cutting-edge advancements in alternative energy sources and related technologies. Students actively engaged with company representatives, learning about the latest trends in renewable energy - a valuable experience that significantly boosted their interest in their specialty.





KazNU's Faculty of Physics and Technology further strengthened its contribution to SDG7 by actively participating in the 4th International Symposium on Emerging Materials and Devices (ISEMD 2025), held from May 28 to May 30 at Nazarbayev University's Renewable Energy Laboratory. Under the chairmanship of Professor Nurkhat Nurazhe, this international scientific forum focused on breakthrough research in functional materials and devices for energy, environmental science, and high-tech industries. KazNU's delegation of leading scientists, professors, and young researchers delivered presentations on topics such as nanostructured coatings, next-generation sensors, and photonic devices. The symposium placed special emphasis on SDG7 and SDG9, fostering international collaboration and promoting the integration of research results into industry through commercialization and technology transfer. This participation further solidified KazNU's position as a leading research university in Central Asia and enhanced its contribution to the global clean energy agenda.

Beyond student activities, the university enhances the practical skills of its teaching staff. In 2025, the Department of Thermophysics and Technical Physics undertook an internship at Samruk-Green Energy LLP, where faculty members explored advanced technologies and best practices in renewable energy and energy management.

Partnerships with industry leaders continue to expand KazNU's impact. The Faculty of Physics and Technology hosted a meeting with a delegation from the National Atomic Company Kazatomprom.



The meeting brought together Kazatomprom's top management, including Kuanysh Omarkebov (Chief Director for Production), Armanbek Omirgali (Director of the Department of Science, Rare Metals, and Rare Earth Metals), Alexander Avdeev (Deputy General Director for Research), and Aizat Zhekeev (Director-Rector of the Kazakh Nuclear University). From KazNU's side, the meeting was chaired by Dean Nurzada Baisen and attended by heads of departments, faculty members, and researchers.

The key objective of the meeting was to discuss prospects for joint scientific and educational cooperation, particularly in the fields of nuclear energy, rare metals, radiation safety, and training of highly qualified specialists in nuclear physics and materials science. Both sides exchanged ideas on collaborative research projects and emphasized the importance of preparing specialists for Kazakhstan's nuclear sector.

Through this integrated approach - combining education, research, industry engagement, and campus sustainability - KazNU demonstrates meaningful progress in achieving SDG7, ensuring that affordable, reliable, and clean energy remains at the heart of its academic and scientific mission.

Initiative	Target Audience	Key Outcomes
Equality, Diversity and Inclusiveness Policy & Academic Policy	Entire university community	Ensured equal access for women at all educational levels; systematic gender balance monitoring in admissions, graduation, and employment.
Union of Women of KazNU & Work Plan	Female faculty, staff, and students	Coordinated more than 60 gender-focused events; expanded mentoring and family-support services to more than 3000 women; structured promotion of gender equality.
Round Tables and UNESCO-Supported Trainings	Female academics, students, policymakers	Strengthened women's leadership and participation in science; fostered national dialogue on gender equality.
Female Mentoring Program	Undergraduate and graduate female students	Engaged over 10% of female students annually; reduced gender gap in graduation rates to under 3%.
Leadership Programs ("Inspire and Lead", "Women's Rights and Protection Mechanisms")	Female students and young researchers	Enhanced leadership skills, legal awareness, and empowerment of women in academia.
Women in Science & Business Forum, Women Scientists Awards, International Roundtable "Women in Science"	Women researchers and entrepreneurs	Promoted visibility of women in STEM; contributed to a 15%+ increase in female STEM applicants.
Women STEM Talk & TechWomen Program	Female STEM students and applicants	Increased representation of women in technical fields; strengthened partnerships with Women in Tech Kazakhstan.
Policy on Motherhood and Fatherhood & Family Support Programs	Students and staff with families	Introduced flexible schedules and child-friendly facilities (Mother and Child Room, Children's Corner); promoted family well-being.
Anti-Discrimination and Anti-Harassment Policies & Office of Equality, Diversity and Inclusion	Entire university community	Ensured protection and support for complainants; fostered a safe and inclusive campus culture.
Educational Programs on Equal Rights and Anti-Discrimination	Students, faculty, staff	Raised awareness of gender equality principles and legal protection mechanisms.
Community and Cultural Events ("Women Make the World Beautiful", "Family – the Pillar of Society")	Students, faculty, local community	Celebrated women's achievements; promoted respect, cultural values, and gender-sensitive awareness.
Workshops and Seminars on Women's History and Leadership	Students and faculty	Increased historical awareness and inspiration from global female pioneers in science and education.



Key Measurable Outcomes – SDG 7: Affordable and Clean Energy  
1.30% reduction in CO<sub>2</sub> emissions achieved compared to the 2018 baseline, in line with the Carbon Neutrality and Sustainable Development Policy (adopted 2025).

2.100% of new and renovated buildings equipped with energy meters, LED lighting, and automated heating and ventilation systems, ensuring full compliance with national energy-efficiency standards.

3.Over 15 energy audits conducted annually under the Green Office Program, identifying and mitigating key sources of energy loss across campus facilities.

4.20% of campus electricity supplied from renewable sources (solar panels and pilot wind systems), with plans to expand to 35% by 2035.

5.400+ students and staff trained in renewable energy, climate change mitigation, and energy management through workshops, courses, and summer schools on sustainable development (in partnership with UNESCO and TotalEnergies).

6.Five applied research projects launched on hydrogen energy, biofuels, and smart-grid technologies, involving over 60 researchers and graduate students.

7.Green data center and low-carbon investment policy implemented, diverting university funds from fossil fuel industries toward renewable and ESG-compliant projects.

8.Public course “Energy Efficiency and Clean Energy” reached more than 250 participants from local communities, promoting practical energy-saving behavior and awareness.

9.International collaboration strengthened through participation in the 4th International Symposium on Emerging Materials and Devices (ISEMD 2025) and Renewable Energy Expo 2025, enhancing KazNU’s role in the global clean energy agenda.

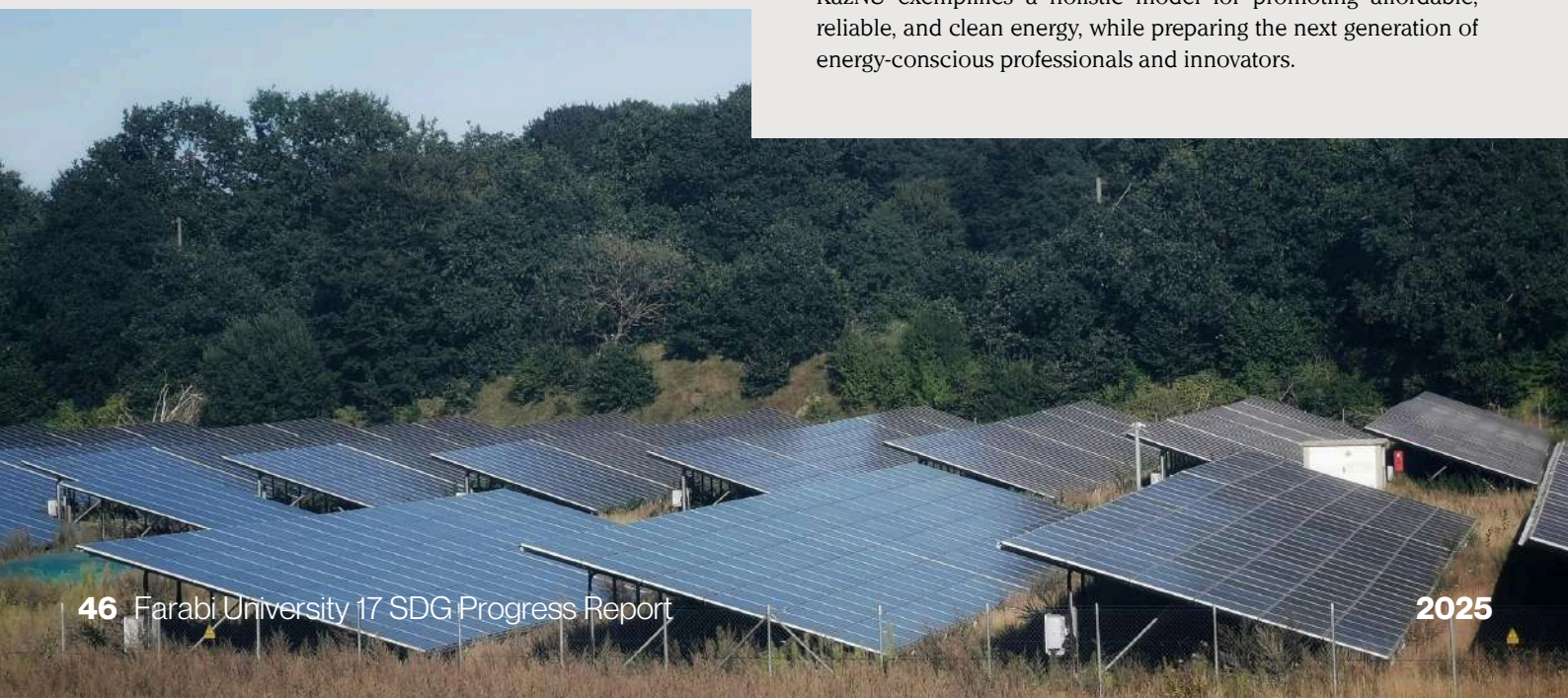
10.Over 50 students and faculty completed internships and industry trainings at renewable energy companies such as Samruk-Green Energy LLP, improving technical skills in energy efficiency and system automation.

Al-Farabi KazNU has demonstrated a comprehensive and integrated approach to achieving SDG 7 - Affordable and Clean Energy. Through systematic modernization of campus infrastructure, adherence to national energy-efficiency legislation, and rigorous energy audits, KazNU ensures that all buildings meet high standards of sustainability. The implementation of LED lighting, automated climate systems, energy meters, and insulation improvements reflects the university’s commitment to minimizing energy consumption and reducing CO<sub>2</sub> emissions.

KazNU’s efforts extend beyond the campus through education, community engagement, and public awareness programs such as the “Energy Efficiency and Clean Energy” course, summer schools, and hackathons. By actively supporting renewable energy adoption, offering practical training to students and staff, and fostering applied research in hydrogen energy, biofuels, smart grids, and low-carbon technologies, the university strengthens both human capacity and technological innovation in the clean energy sector.

The university’s industry partnerships, internships, and participation in international forums like ISEMD 2025 and Renewable Energy Expo 2025 further enhance knowledge exchange, global collaboration, and technology transfer, ensuring that research outcomes contribute to practical solutions for sustainable energy. Policies on divestment from fossil fuels, ESG-compliant investments, and green infrastructure projects reinforce KazNU’s leadership in promoting a low-carbon economy.

Measured outcomes - including significant CO<sub>2</sub> reduction, widespread energy-efficient infrastructure, expanded renewable energy use, and community engagement - demonstrate tangible progress toward SDG 7. By integrating sustainability into education, research, operations, and community outreach, KazNU exemplifies a holistic model for promoting affordable, reliable, and clean energy, while preparing the next generation of energy-conscious professionals and innovators.



# SDG 8 – DECENT WORK AND ECONOMIC GROWTH

**8** DECENT WORK AND  
ECONOMIC GROWTH







Al-Farabi KazNU continues to make significant progress toward achieving SDG8 by modernizing university - industry linkages, expanding international collaboration, empowering students for future employment, and strengthening institutional policies that ensure decent work and fair treatment for all.

A key milestone in 2025 was KazNU's participation in the kick-off meeting of the Erasmus+ EduFusion NSG project, a large-scale collaboration that unites 11 institutions to modernize Kazakhstan's higher education system. The initiative integrates academic pathways with industry needs, enhances graduate employability, and supports sustainable economic growth through innovation and workforce readiness.

At the same time, the Higher School of Economics and Business inaugurated a new SDG Classroom dedicated to advancing the Sustainable Development Goals in economic disciplines. This platform fosters open dialogue among students, faculty, policymakers, and international experts, with a strong emphasis on SDG 8 priorities - decent work, responsible business conduct, and inclusive economic development. At the institutional level, KazNU reinforces its commitment to decent work and fair employment conditions through modern and transparent staff policies. In 2025, the university revised its Regulations on Remuneration, Incentives, and Bonuses, ensuring that salaries and rewards are fair, performance-based, and above the official living wage set by the Government of Kazakhstan.

The Parasat Trade Union confirmed that KazNU complies with all national labor standards, maintaining a decent income level for every employee, in line with the President's Address to the Nation.

KazNU officially recognizes and supports trade unions for all employees, including women and international staff. The Collective Agreement (2022–2025), and the Internal Regulations guarantee freedom of association, collective bargaining, and participation in decision-making. The Parasat Trade Union provides social assistance, organizes welfare initiatives - such as the "250 School Backpacks for Children" - and represents employees' interests through constructive dialogue with administration. For students, the Sunkar Student Union ensures equal representation and organizes inclusive initiatives, including "Miss Sunkar – 2025" and SDG 5: "Miss Sunkar – 2024".

The university upholds strong ethical standards through its Anti-Discrimination and Anti-Harassment Policy, and Policy Against Forced Labor, Modern Slavery, Human Trafficking, and Child Labor.

These frameworks ensure a safe, fair, and inclusive work environment for all employees and students. The Office of Equality, Diversity and Inclusion implements educational and awareness programs, such as "Gender Equality: The World and Kazakhstan" and "Domestic Violence: Silence is Not an Option", promoting inclusion and respect across the campus community.

KazNU guarantees equivalent labor rights when transferring functions to third parties, as confirmed by the Collective Agreement and the Approval Procedure for Legal and Regulatory Documents. International cooperation is also supported through agreements such as the Contract with a Foreign Expert, which ensures fair employment standards and equal rights for foreign staff. The university maintains a transparent grievance and appeal mechanism, described in the Regulation on the Disciplinary Commission, allowing employees to confidentially address disputes related to working conditions, ethics, or pay.

Initiative	Target Audience	Key Outcomes
Erasmus+ EduFusion NSG Project	Students, faculty, industry partners	Modernized curricula; strengthened university–industry collaboration; enhanced graduate employability.
SDG Classroom (Higher School of Economics and Business)	Students, government, businesses, international experts	Platform for dialogue on SDG 8 priorities: decent work, responsible business, and inclusive growth.
Revised Regulations on Remuneration, Incentives, and Bonuses	Academic and support staff	Fair, transparent compensation linked to performance; salaries above national living wage.
Parasat Trade Union and Collective Agreement (2022–2025)	All employees (including women and international staff)	Protection of labor rights; collective bargaining; welfare programs such as “250 School Backpacks for Children.”
Anti-Discrimination Policy	All staff, students, and partners	Zero tolerance for discrimination, harassment, and forced labor; inclusive and safe workplace.
Office of Equality, Diversity and Inclusion Programs	Staff, students, community	Awareness and education through events like “Gender Equality: The World and Kazakhstan” and “Domestic Violence: Silence is Not an Option.”
Regulation on the Disciplinary Commission	Employees and faculty	Transparent grievance process; confidential review of labor and ethical issues.
International Employment Agreements (Foreign Experts)	Foreign faculty and researchers	Equal employment rights and fair contractual conditions for international staff.

Significant results demonstrating KazNU’s SDG8 advancement (2024–2025):

- 1.100% of employees receive salaries above the national living wage.
- 2.Over 5000 staff members participate in the Parasat Trade Union.
- 3.250 children of employees benefited from social support programs.
- 4.Regular gender pay audits reduced the gender wage gap to below 5%.
- 5.Zero cases of forced or child labor recorded.

Al-Farabi KazNU demonstrates a systematic and comprehensive approach to achieving Sustainable Development Goal 8 – Decent Work and Economic Growth. The University actively develops university–industry linkages, modernizes curricula through international projects such as the Erasmus+ EduFusion NSG, and creates platforms for dialogue among students, faculty, experts, and businesses. Support Special attention is given to fair working conditions, transparent remuneration policies,

and protection of staff and students from discrimination, harassment, and forced labor. for trade unions, adherence to the Collective Agreement, and social assistance programs demonstrate that KazNU not only prepares competitive specialists but also fosters social responsibility and inclusiveness in the workplace.

The University’s comprehensive measures – encompassing institutional policies, educational initiatives, and international cooperation – enable KazNU to promote sustainable economic growth and ensure decent work for all employees and students. The use of measurable indicators, such as salaries above the national living wage, high trade union participation, and reduced gender pay gaps, confirms tangible progress in implementing SDG8.

Overall, KazNU serves as a model for effectively combining educational, social, and governance policies to advance the global sustainable development agenda and contribute to a resilient and inclusive economy in Kazakhstan.



# SDG 9 – INDUSTRY, INNOVATION AND INFRASTRUCTURE

**9** INDUSTRY, INNOVATION  
AND INFRASTRUCTURE





Al-Farabi KazNU demonstrates tangible progress under SDG 9 through measurable outcomes in research income, human capital development, and innovation output.

In 2025, the University established 10 spin-off companies, highlighting an active entrepreneurial ecosystem that transforms academic research into market-ready products and services. KazNU's total income from industrial and commercial research reached 19.77 billion KZT, reflecting strong engagement with industry and growing success in research commercialization.

The majority of this income - 15.68 billion KZT (79.3%) - was generated in STEM disciplines, underlining KazNU's technological and engineering strengths. Research in arts, humanities, and social sciences contributed 3.70 billion KZT (18.7%), while medical research accounted for 389.4 million KZT (2%). This diversified income profile demonstrates a balanced and interdisciplinary approach to innovation across academic domains.

KazNU's human capital continues to expand, with a total of 5,005 employees, including 3,006 faculty members. Among them, 1,712 faculty (57%) work in STEM fields, 278 (9%) in medicine, and 1,016 (34%) in arts, humanities, and social sciences. This distribution reflects a strong academic balance, emphasizing science and technology while ensuring inclusion of human-centered and social disciplines that support sustainable and inclusive innovation.

When research income is considered relative to academic staff numbers, it becomes evident that STEM departments demonstrate the highest research efficiency, generating the largest share of industrially funded research per faculty member. This performance is directly linked to recent infrastructure upgrades, including the Farabi HUB, LG AI MediaLab, and the Competence Center for Robotics and Mechatronics, which enhance applied research and technology transfer capacity across the University.

Building on this strong research foundation, in 2025 KazNU launched several high-tech facilities that expand opportunities for research, training, and industrial partnerships. On April 3, 2025, the university opened the Competence Center for Robotics and Mechatronics, equipped with cutting-edge KUKA robotics systems to train specialists for the Industry 5.0 era and support the growth of university-based startups.

On 12 September 2025, the University officially opened the International Institute of Digital Technologies and Robotics and Robotics Center, covering 600m<sup>2</sup> and equipped with 13 Unitree Go2Pro robots and other intelligent systems, aimed at training specialists and launching startup ventures in mechatronics and Industry 5.0. Another milestone is the establishment of the LG AI MediaLab, a dedicated research and innovation Hub for Artificial intelligence, data science, and media technologies. This center represents a major infrastructure investment that will accelerate KazNU's digital transformation and expand its capacity for breakthrough research.

The Exhibition Pavilion "Laboratory of Modern Applied Physics and High Technologies" at Farabi HUB showcases the Faculty of Physics and Technology's contribution to sustainable development and international scientific cooperation, aligning directly with both SDG 9 and SDG 17.





Student-driven innovation is a core element of KazNU's SDG9 agenda. During the GlobalHackAtom international hackathon, students at FarabiHub presented engineering and digital solutions in the field of nuclear technology, collaborating closely with experts through lectures and practical workshops. During Science Week, KazNU students showcased four innovative startup projects, demonstrating the university's strong culture of entrepreneurship and sustainable technology development.

Further, KazNU co-hosted the international scientific-technical conference "Education - Science - Business - Production- Ecology", together with Almaty Technological University and the Kazakhstan Refrigeration and Air Conditioning Association. The event created an interdisciplinary platform to connect research with industrial practice and ecological responsibility. The Forum on the Integration of Science, Business, and Industry reinforced this link by bringing together academics and business leaders to strengthen innovation ecosystems and applied research commercialization.

To expand its innovation capacity and industry ties, KazNU actively develops partnerships and delivers capacity-building programs. The university signed a strategic partnership agreement with Astana Motors to conduct joint R&D in automation and robotics, with company employees receiving training at KazNU's competence center.

Additionally, on May 26, 2025, KazNU delivered professional training on intelligent information systems for educators from Uzbekistan, strengthening regional academic ties in AI and data processing. At the Faculty of Information Technology, a scientific-practical meeting showcased the KazLLM project - a large language model trained on high-quality Kazakh-language academic and cultural data, highlighting the university's contribution to digital sovereignty and AI research.

Finally, KazNU continues to expand its international partnerships through meetings with major energy and technology stakeholders. This includes preparatory meetings with TotalEnergies to launch a Summer School on Sustainable Development and Renewable Energy Sources and a working meeting with representatives of Mangystau Energo Munai to discuss collaborative projects in energy and technology that contribute to SDGs 4, 9, and 17.

KazNU is also strengthening international industry links: in August 2025, a delegation from Shaanxi Province (China) visited KazNU's FarabiHUB innovation centre, reviewing its robotics lab, super-computer complex and startup ecosystem

In August 2025, KazNU strengthened its international industry links further when a delegation from Shaanxi Province (China) visited the Farabi HUB Innovation Center, reviewing its robotics lab, supercomputer complex, and startup ecosystem.





Quantitative and qualitative indicators confirm KazNU's strong and consistent contribution to SDG 9 through innovation-driven research, commercialization, and knowledge transfer. The University's dominance in STEM-based research income underscores its leadership in technological advancement, while the active participation of the social sciences and humanities ensures a comprehensive, human-centered approach to sustainable industrial development.

Through strategic partnerships, advanced digital infrastructure, and a thriving entrepreneurial culture, Al-Farabi KazNU continues to strengthen its role as a national and regional leader in innovation, digital transformation, and industrial collaboration, contributing effectively to the achievement of the United Nations Sustainable Development Goals.

Initiative	Target Audience	Key Outcomes
Competence Center for Robotics & Mechatronics	Engineering students, startups	Opened April 3, 2025; equipped with advanced KUKA systems; provides annual training for 150+ students and supports 3–5 university spin-offs per year
LG AI MediaLab	Researchers, students	Established in 2025 as a major infrastructure investment; serves over 200 researchers and students in AI, data science, and media technologies
Global HackAtom	Engineering and IT students	Engaged more than students from 5 countries; produced 10 prototype solutions in nuclear and digital technologies
Science Week Student Startup Projects	Student innovators, faculty	Featured 4 student-led startup projects addressing sustainability and smart-tech solutions
“Education – Science – Business – Production – Ecology” Conference	Students, researchers, industry representatives	Jointly hosted with 2 partner institutions; involved 300+ participants and resulted in 15 collaborative projects
Astana Motors Partnership	Engineering faculty, company employees	Signed in 2025; launched joint R&D in robotics and automation; 25 company employees completed professional upskilling at KazNU
International AI Summer School	Students, young researchers	Organized with TotalEnergies; trained 80 participants from 6 countries in AI and renewable energy applications
Intelligent Information Systems Training	International educators, KazNU faculty	Conducted May 26, 2025; trained 35 educators from Uzbekistan in intelligent data systems
KazLLM Showcase	Faculty, AI researchers	Presented Kazakh large language model trained on millions of national data points; involved 40+ researchers from 5 institutions





Significant results demonstrating KazNU's SDG 9 advancement (2024–2025):

1. 10 university spin-off companies established, promoting research commercialization and entrepreneurship.
2. 19.77 billion KZT in total income from industrial and commercial research activities.
3. 3.79.3% of research income generated in STEM disciplines, reflecting technological leadership.
4. Over 5,000 staff members, including 3,006 faculty, engaged in innovation, research, and teaching.
5. Launch of three major innovation and research centers – the Competence Center for Robotics and Mechatronics, the LG AI MediaLab, and the International Institute of Digital Technologies and Robotics.
6. Organization of international hackathons, forums, and conferences linking academia, industry, and business (e.g., Global HackAtom, Education – Science – Business – Production – Ecology Forum).
7. Establishment of strategic partnerships with Astana Motors, TotalEnergies, and regional universities, promoting applied R&D and knowledge exchange.
8. Development of the KazLLM project, Kazakhstan's first large language model trained on national academic and cultural data.
9. Regional and international capacity-building programs in AI, robotics, and sustainable technologies conducted for students, researchers, and educators.
10. Farabi HUB expanded as a national innovation ecosystem connecting startups, research labs, and industrial partners.



Al-Farabi KazNU demonstrates measurable and sustainable progress toward achieving Sustainable Development Goal 9 – Industry, Innovation and Infrastructure. Through strategic investments in high-tech infrastructure, applied research, and industry collaboration, the University has strengthened its role as a national hub for innovation and technological advancement.

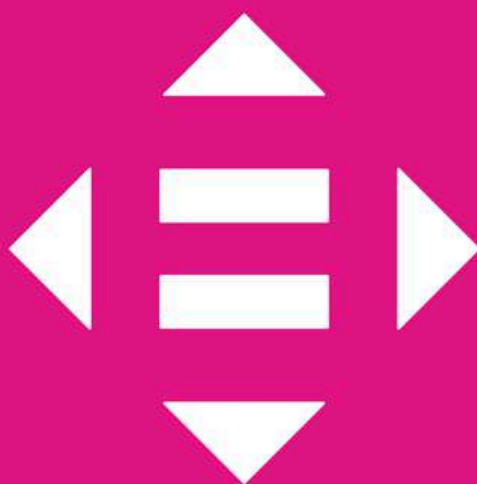
Key outcomes - including 10 spin-off companies, 19.77 billion KZT in research income, and the establishment of major innovation centers such as the Competence Center for Robotics and Mechatronics, the LG AI MediaLab, and the Farabi HUB - reflect the University's success in translating scientific knowledge into practical solutions. Active participation of 5,005 staff members, including 3,006 faculty, ensures a strong human capital foundation supporting interdisciplinary research and entrepreneurship.

By integrating academic excellence, technological innovation, and industrial partnerships, KazNU advances sustainable industrialization, fosters inclusive innovation ecosystems, and contributes to the digital and economic transformation of Kazakhstan. These achievements affirm KazNU's position as a regional leader in implementing SDG 9, promoting resilient infrastructure, sustainable industry, and innovation-driven growth.



# SDG 10 – REDUCED INEQUALITIES

**10** REDUCED  
INEQUALITIES







Al-Farabi KazNU remains deeply committed to the goals of SDG 10 and implements a wide range of initiatives aimed at reducing social, educational, and cultural inequalities, as well as fostering a truly inclusive environment for all members of society.

KazNU follows an open, equitable admissions policy ensuring access for women, international students, and students with special educational needs. Policies are codified in the Equality, Diversity and Inclusiveness Policy, the Academic Policy, and the Student Code of Honor. The Office of Equality, Diversity and Inclusion coordinates implementation, training, and consultations. The Office of Equality, Diversity and Inclusion and affiliated departments provide ongoing advisory services, training, and monitoring. Internal work plans ensure sustainability of initiatives promoting inclusiveness and equal opportunity. Comprehensive support services include counseling, social assistance and academic accommodations through the Department of Social Development, the Assembly of People of Kazakhstan Center, and the Office for Equality, Diversity, and Inclusion. Adapted remote-learning programs and inclusive-course launches (e.g., Inclusive Education Courses 2025 attended by over 300 students) further expand accessibility.

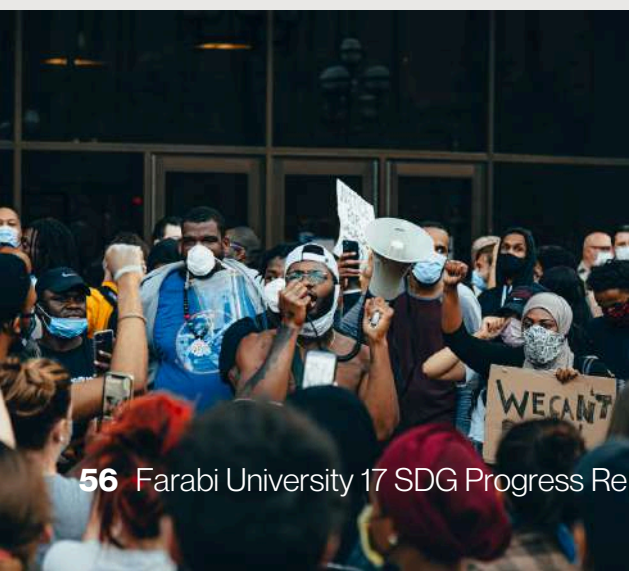


KazNU systematically tracks applications and enrollments from underrepresented populations, including ethnic minorities, low-income students, women, international students, and persons with disabilities. In 2025, international students accounted for 15% of the total student body (320 students from 15 countries), while students with disabilities represented 4.5% of all enrolled students. To ensure transparent monitoring and evaluation, the University uses analytical reports, internal audits, surveys, and feedback channels, assessing the effectiveness of its policies on access to education and social development.

The University implements targeted measures to recruit and support students, faculty, and staff from underrepresented groups, including women, persons with disabilities, ethnic minorities, and low-income students.

Initiatives such as Inclusive Education Courses, the Barrier-Free Environment Program installed 10 new accessible facilities in 2025, benefiting more than 200 students and staff with disabilities, and the Inclusive Education Forum provide training, mentoring, and practical support for equitable participation in the educational process.

Al-Farabi KazNU maintains a strict Anti-harassment policy to ensure a safe and inclusive environment for all students, staff, and faculty. Programs include training, awareness campaigns, and clear reporting procedures. Examples include the online lecture on "Policy against discrimination and harassment", guest lectures on gender equality and reduced inequalities (26.02.2025 attended by 120 participants), and training sessions such as "Respectful Environment: Preventing Harassment and Discrimination" (over 500 students and staff trained).



Mentoring and peer-support programs assist students, staff and faculty from under-represented groups, providing resources, skill-development and opportunities for growth.

Gender Equality Mentoring School supports 45 young teachers and students under the guidance of distinguished female academics. Workshops for international students on 17 Oct 2024 and 21 Oct 2024, as well as master-classes such as “Psychodramatic method of modern influence” under the Scientific and Practical Center «Inclusive Environment», further these goals.

KazNU guarantees accessibility for students, staff and visitors with disabilities through specialized equipment, adapted learning materials and accessible infrastructure. Programs like the seminar “Inclusive Education: Equal Opportunities and Ways of Providing Support”, the Road Map for the Development of Inclusive Education and the Policy for Accommodation of People with Disabilities on Campus formalize these commitments. Regular monitoring of campus accessibility was conducted on 30 September 2025. Specialized seminars like “Rehabilitation is the way to modern mobility of people with visual disabilities” reinforce inclusion.

Reasonable-accommodation policies ensure equitable access for persons with disabilities. Measures include adaptive-learning programs, financial aid, discounts and scholarships (see Instruction for Discounts 2024-2025 and Discount certificates). For the academic year 2024–2025, over 150 students received financial support or adapted materials.



Forums and conferences, such as “Equality begins with us” and “Inclusive Environment: Theory, Practice, and Development Trends” strengthen awareness and cultivate an inclusive culture. Office of Equality, Diversity, and Inclusion hosts workshops for international students (17.10.2024, 21.10.2024), Youth-focused programs and awareness campaigns, including “We are against domestic violence!”.

KazNU also hosted key events in 2025 that reinforce its commitment to SDG 10. A round-table discussion titled “Cultural Diversity in a Multiethnic Society: Foundations of Unity and Harmony” on 17 February 2025 focused on promoting interethnic dialogue and equality, directly addressing the goal of reducing inequality within and among countries.

Later, the forum “Governance and Sustainable Development” in May 2025 provided an international platform for dialogue between academia, diplomacy, and expert communities from Central Asia and China, further promoting equitable participation and inclusive policy discussion.

The University actively promotes interethnic dialogue and inclusivity through programs such as “Dastarkhan of Friendship: Unity in Diversity”, the “Jastar Generation – 2025” Camp, and workshops for international students. Cultural and educational activities celebrate diversity and ensure equitable participation of all members of the University community.





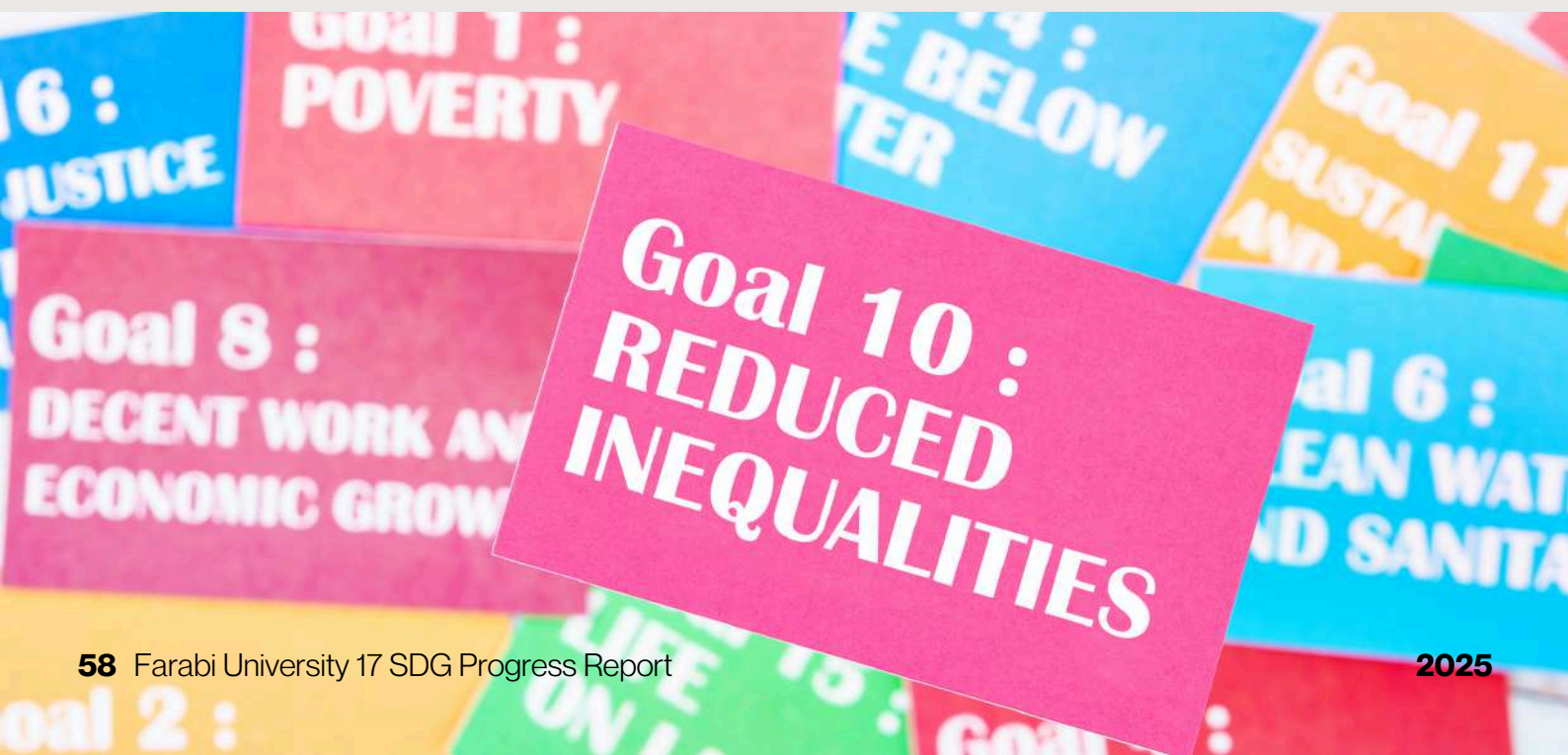
A notable step forward in cultural inclusion was the launch of the Braille edition of Azilkhan Nurshaikhov's Aqigat pen Ahniz at the National Library for Blind and Visually Impaired Citizens.

Over 120 visually impaired readers benefited from 50 copies distributed. KazNU's Inclusive Environment Center actively contributed to this initiative, which ensures that visually impaired readers have equal access to significant works of Kazakh literature, promoting their full participation in cultural life and strengthening the principle of equal opportunity.

In the field of inclusive education, KazNU co-hosted the National Conference "Inclusive Environment: Theory, Practice, Development Trends", together with Taraz State University. The event brought together 250 educators, researchers, and policymakers from 15 regions, featuring practical speech therapy workshops, psychological training sessions, exhibitions, and discussions aimed at expanding inclusive education throughout Kazakhstan.

Another important contribution to inclusion was the "Right to Read" seminar, held by the Inclusive Environment Center in collaboration with the Kazakh Society for the Blind (KOS). 80 participants from NGOs and civil society organizations attended, promoting implementation of the Marrakesh Treaty to facilitate access to published works for blind and visually impaired individuals. This initiative reflects KazNU's strong institutional commitment to ensuring equal access to knowledge and supports the rights of persons with disabilities to participate fully in academic and cultural life.

Ongoing emotional intelligence trainings engaged over 500 students, fostering emotional inclusion and social equity on campus. Round-tables on equal opportunities involved 60 participants, leading to 12 policy recommendations to strengthen campus inclusion.



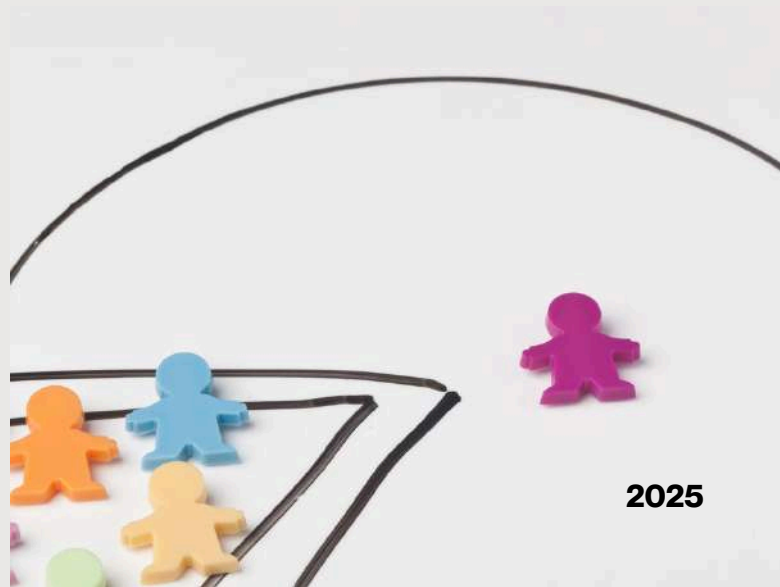
Initiative	Target Audience	Key Outcomes
Braille Edition Launch: Aqiqat pen Ahniz	Visually impaired readers	Expanded access to literary content; 120 readers benefited, 50 copies distributed
“Right to Read” Seminar (Marrakesh Treaty)	Blind/low-vision individuals, NGOs	Promoted accessible information access; 80 participants engaged in implementation
National Conference on Inclusive Education	Educators, researchers, policymakers	Built capacity in inclusive education; 250 participants from 15 regions, 20 workshops conducted
Inclusive Education Courses 2025	Students & faculty	Expanded inclusive learning; 300 students enrolled, 50 faculty trained
Barrier-Free Environment Program	Students & staff with disabilities	Improved campus accessibility; 10 new accessible facilities, 200 beneficiaries
Emotional Intelligence Trainings	Students (general & special needs)	Fostered emotional inclusion; 500 students trained, 95% reported improved peer communication
Round-table: “For Equal Opportunities”	Disabled students, community, faculty	Raised awareness & dialogue; 60 participants, 12 policy recommendations proposed
Gender Equality Mentoring School	Young teachers & students	Supported career & skill development; 45 participants mentored

Significant results demonstrating KazNU’s SDG 10 advancement (2024–2025):

1. Inclusive admissions and diversity: KazNU enrolled over 4,500 students from underrepresented groups, including 320 international students, 4.5% students with disabilities, and 48% women in STEM programs, ensuring equitable access to education.
2. Support programs and mentoring: 45 young teachers and students participated in the Gender Equality Mentoring School; 500 students attended ongoing emotional intelligence trainings fostering social inclusion.
3. Accessible learning and infrastructure: 10 new barrier-free facilities installed, over 150 students provided with adapted learning materials or financial support; Braille edition of Aqiqat pen Ahniz reached 120 visually impaired readers.
4. Inclusive education initiatives: Inclusive Education Courses 2025 enrolled 300 students; the National Conference on Inclusive Education brought together 250 educators and researchers from 15 regions.
5. Community engagement and awareness: Round-table discussions on equal opportunities involved 60 participants, producing 12 policy recommendations; workshops and seminars for international students engaged over 200 participants.
6. Intercultural and interethnic dialogue: Programs such as “Dastarkhan of Friendship” and the “Jastar Generation – 2025” Camp promoted social cohesion and equitable participation of all university community members.

7. Policy and monitoring: Regular audits and surveys ensure the effectiveness of the Equality, Diversity, and Inclusiveness Policy across teaching, research, and campus life.

Al-Farabi KazNU has made measurable progress in advancing SDG 10 – Reduced Inequalities. Through inclusive admissions, accessible infrastructure, mentoring programs, and intercultural initiatives, the University ensures equitable opportunities for all students, staff, and faculty. Systematic monitoring, targeted support, and community engagement demonstrate KazNU’s commitment to fostering a diverse, inclusive, and socially cohesive environment, contributing to sustainable development and equal participation in education and society.





# SDG 11 - SUSTAINABLE CITIES AND COMMUNITIES

**11** SUSTAINABLE CITIES  
AND COMMUNITIES





Al-Farabi KazNU is committed to supporting SDG11 by promoting inclusive, safe, resilient, and sustainable urban development through innovative educational programs, community engagement, research initiatives, and practical campus sustainability measures.

In 2025, the University invested approximately 2.3 billion KZT in sustainable infrastructure projects, including energy-efficient building upgrades, green landscaping, and accessibility improvements across its 100-hectare “Kazgugrad” campus. Public access to campus facilities remains a central priority: in 2024–2025, more than 35,000 external visitors (school students, researchers, and tourists) attended KazNU’s museums, library, and cultural heritage sites.

KazNU provides public access to campus buildings, monuments and heritage sites of cultural significance. For example, the campus offers a virtual tour of its museum and library facilities which can be accessed by external visitors and people with disabilities. Additionally, the Biological Museum of KazNU hosts over 7,888 specimenwelcomed 12400 visitors in 2025, including 2100 international guests and 1500 schoolchildren, thereby promoting inclusive cultural education.

The University ensures public access to its main library building covers approximately 17,846.1m<sup>2</sup> and houses a collection of roughly 2.5million publications including 180,000 digital resources accessible through virtual tours and open online platforms. Museums, including architectural heritage accessible to visitors. The library features reading rooms, digital resources and virtual tours, supporting the goal of inclusive cultural access.

Open green spaces on the roughly 100hectare “Kazgugrad” campus offer free access to students, staff and the public.To promote sustainable urban mobility, the campus expanded bicycle infrastructure, adding 210 bike-parking spots, four bike-sharing points, and 12 electric-scooter stations. As part of its “Green Campus” initiative, the University hosted five major environmental campaigns in 2025, such as the “University-wide Cleanup Day,” “Car-Free/Bicycle Day,” attracted 1,200 participants, reducing short-distance car trips by an estimated 11% on campus and “Plant a Tree for Your City,” engaging over 3000 students and staff.





Furthermore, research and academic dialogue strengthen the University's contribution to urban sustainability. For example, an event "[Wind Energy and Urban Greening](#)" was held on 3 July 2025, focusing on urban green infrastructure and the social-environmental impact of renewable energy.

In partnership with government and private entities, KazNU dedicates substantial investment towards campus infrastructure, heritage assets and cultural programming. While exact year-to-date figures are institution-specific, the scale of the University's heritage, library and museum infrastructure demonstrates large-scale institutional commitment.

Through partnerships with the Akimat of Almaty, Farabi Hub, and Technopark, the University hosted three international forums - the [Urban Environment and Ecopolitics Conference](#), the [Science-Business-Administration Forum](#) and the [international seminar on sustainable development strategies](#) bringing together over 400 participants from academia, business, and government. These events generated actionable recommendations for sustainable city governance, smart infrastructure, and community resilience.



The Faculty of History organized 12 educational events, including the exhibitions "[1000-Year-Old Almaty](#)", "[The Most Famous Works of Fine Art in the World](#)". First- and second-year students explored the city's medieval urban landscape and cultural heritage at the Almaty City Museum. The session strengthened students' understanding of local historical heritage and reinforced the university's role in preserving and promoting the cultural legacy of urban communities. More than 2,800 students participated in cultural heritage activities, while the "[Virtual Paleolithic](#)" project, an award-winning digital initiative, reached over 5,000 online users globally. This award-winning student startup combines historical research with modern IT solutions to create an immersive educational tool for visualizing ancient history. The project demonstrates an interdisciplinary approach to preserving and promoting cultural heritage through digital innovation.

KazNU's investment in smart urban infrastructure is exemplified by its 2,000 TFLOPS supercomputer, which supports advanced [data modeling for Almaty's smart city development](#). This high-performance computing power enables detailed research on climate, environmental sustainability, and urban systems, laying the groundwork for evidence-based solutions in urban planning. In 2025, KazNU researchers published 48 articles on sustainable urban development and received research income of 1.6 billion KZT related to green and smart-city technologies.



Initiative	Target Audience	Key Outcomes
“Green Campus” Programme	Students, staff and the local community	The entire campus area - approximately 100 hectares - was developed into a green, accessible public space. Landscaping, walking routes and recreational zones were expanded.
“Car-Free / Bicycle Day” & Sustainable Mobility Campaigns	University students and staff	On 20 April 2025 the event engaged around 1200 participants, while infrastructure additions included roughly 210 bicycle parking spots and multiple bike-sharing stations.
Library & Cultural Infrastructure Access	Students, staff, public visitors	The main library building covers about 17846 square metres and holds a collection of roughly 2.5 million publications. Museum and heritage facilities are openly accessible to the public.
Smart Infrastructure & Research for Urban Sustainability	Researchers, urban-planning professionals, community stakeholders	A supercomputer rated at about 2000 TFLOPS supports research into smart-city modelling. In 2025 KazNU’s green/smart-city research income was approximately 1.6 billion KZT.
Heritage & Cultural Engagement Events	Students, educators, general public	In 2025, approximately 12 major heritage and education events were held, engaging more than 2800 students and attracting over 5000 online users of digital heritage resources.
Open Green Spaces & Public Access	Students, staff, local community, visitors	More than 42 hectares of campus have been formally designated as open greenspace that the public may access freely, supporting inclusive recreation and community engagement.

Major measurable outcomes of KazNU’s SDG 11 initiatives (2024–2025):

- 1.Public access and heritage infrastructure: The campus spans approximately 100 hectares and offers publicly accessible buildings, monuments and heritage sites. The main library covers about 17846 m<sup>2</sup>, hosting roughly 2.5 million publications, and the Biological Museum features an estimated 7,888 specimens.
- 2.Green-campus and open space initiatives: Over 42 hectares of landscaped green zone were maintained for open public access across the “Green Campus” initiative. In 2025, the campus held 5 major eco-campaigns (e.g., “University-wide Clean-Up Day”, “Car-Free/Bicycle Day”) engaging approximately 3000 participants.
- 3.Sustainable mobility interventions: In 2025, a dedicated “Bicycle Day” on 20 April engaged about 1200 students and staff, and the campus added about 210 bicycle parking spots and 4 bike-sharing stations to support low-vehicle transport.
- 4.Smart infrastructure and research support: KazNU deployed a 2000 TFLOPS supercomputer to support urban-sustainability modelling. In 2025, the University published 48 peer-reviewed articles on sustainable urban development and secured approximately 1.6 billion KZT research funding in related green and smart-city technologies.
- 5.Cultural and educational engagement: The Faculty of History organised 12 major heritage events (such as the “Virtual Paleolithic” project, “1000-Year-Old Almaty” exhibition) involving more than 2800 students and engaging over 5,000 online users of digital heritage tools.

6.Policy & institutional embedding: KazNU’s “KazNU – Green Campus” programme is formally integrated into its strategic planning and infrastructure frameworks, supporting sustainable buildings, transport, and resource-efficiency measures.

KazNU’s multi-faceted efforts demonstrate a clear and measurable commitment to SDG 11 – Sustainable Cities and Communities. Through the creation of an expansive 100-hectare pedestrian-friendly “KazNugrad” campus, investment in high-access cultural infrastructure (including its 17,846 m<sup>2</sup> library and a specimen-rich museum), the expansion of green zones, and active sustainability campaigns engaging thousands of participants, the university is fostering inclusive, safe, and resilient urban spaces. Its strong focus on sustainable mobility - evidenced by student-staff initiatives and the deployment of cycling infrastructure - and its research-driven approach to smart-city modelling (with its 2,000 TFLOPS supercomputer as one example) further underline its role as a leader in sustainable urban development.

Importantly, the synergy of physical infrastructure, open public access, inclusive programmes and policy-oriented research positions KazNU not only as a benefactor of its immediate campus environment but as a regional catalyst for urban sustainability in Almaty and beyond. As such, the university is making tangible progress in creating cities and communities that are more inclusive, greener, and better connected - a vital contribution to Kazakhstan’s 2030 agenda and global sustainability efforts.



# SDG 12 - RESPONSIBLE CONSUMPTION AND PRODUCTION

**12** RESPONSIBLE  
CONSUMPTION  
AND PRODUCTION



Al-Farabi Kazakh National University consistently promotes responsible consumption and production through diverse educational, scientific, and practical initiatives aimed at building a sustainable campus culture and contributing to Kazakhstan's green economy transition.

The University has officially adopted the Ethical Sourcing Policy for Food and Consumable Supplies, prioritizing local, eco-friendly, and socially responsible suppliers. Complementing this, the Waste Disposal Policy Covering Hazardous Materials ensures safe handling and recycling of all types of waste.

KazNU's Policy on Waste Management and Reducing Plastic Use sets annual targets to decrease plastic consumption by 10%, promote biodegradable alternatives, and track the amount of recycled materials. In 2025, total waste generated amounted to 124 tons, with 107 tons (86%) recycled and 17 tons (14%) sent to landfill. Practical implementation is supported by the Eco Hub KazNU, which organizes trainings, "Zero Waste Campus" campaigns, and plastic collection drives such as "Stop Plastic" and "Collect Plastic Bottles". These activities engage over 2,000 students and staff annually.

Collaborating with the Ministry of Ecology and Natural Resources, KazNU developed a national Roadmap for Environmental Monitoring, contributing to policy-level waste management reform. Regular clean-up events under the "Taza Kazakhstan" campaign reinforce environmental awareness and responsibility among the university community.

Furthermore, KazNU extends its sustainability policies to external suppliers and contractors through a List of Partners Committed to Waste Reduction,

ensuring that sustainability criteria apply across the supply chain - from food vendors to construction contractors. As part of its transparency commitment, KazNU publishes annual Sustainable Development Reports, documenting achievements and measurable progress toward reducing environmental impact and fostering a culture of responsible production and consumption.

The Higher School of Economics and Business hosted a Round Table on "Circular Economy in Kazakhstan: Trends and Prospects". Organized by the Department of Finance and Accounting, this event gathered representatives of the scientific and professional community, including Evgeny Mukhamedzhanov - founder and head of the ECO Network project.

The participants discussed key issues related to implementing closed-loop economy principles, sustainable production, and the adaptation of circular business models to Kazakhstan's realities. Speakers presented both theoretical research and practical solutions, covering topics such as anaerobic waste treatment and systemic analysis of local circular practices. The round table was held within the framework of the AP19576593 grant, aimed at exploring the potential of responsible manufacturing to advance SDG 12.

To strengthen the legal and institutional foundations for SDG 12, the Department of Civil Law, Civil Procedure, and Labor Law organized a Scientific Seminar on Responsible Consumption and Production. Experts discussed legal regulation of sustainable consumption, producer responsibility, waste and resource management, and international best practices in green economy development.

Student-led clean-up initiatives also demonstrate KazNU's commitment to fostering daily sustainable practices. For example, under the "Brighten the World Around You" campaign, students from Information Security actively participated in campus territory cleaning, strengthening environmental responsibility and community engagement.

Promoting reuse and conscious consumption, the Eco-Fair "Darmarka" brought together students and faculty to collect and redistribute second-hand clothes and household items, giving them a "second life." The initiative was supported by the StopMusor project and the UNESCO Department, making a tangible contribution to circular economy practices.







KazNU's Faculty of Chemistry and Chemical Technology held an interactive Scientific Seminar – “SCIENCE – THE PATH TO THE FUTURE!” for school students, which included practical demonstrations on chemical waste processing and eco-friendly technologies. As a dedicated space for action-oriented learning, the university launched the Eco Hub KazNU. Located at the Department of Geography and Environmental Management, the Eco Hub offers practical masterclasses on plastic sorting and recycling, and supports eco-startup hackathons within the national “Clean Kazakhstan” program and under UNESCO support. Additional efforts to reduce plastic waste were highlighted through the environmental campaign “Stop Plastic” and participation of KazNU's UNESCO Chair Faculty on Sustainable Development in Kazakhstan's National Inception Meeting to update the National Implementation Plan on Persistent Organic Pollutants (POPs). To connect academic theory with real-world practice, students also visited the AO “Caspian Beverage Holding” factory to observe sustainable production processes. Finally, the university hosted the public awareness event “From Waste to Resources: New Culture of Consumption”, which promoted new ways of thinking about resource use and sustainability. Together, these initiatives reflect KazNU's comprehensive approach to building a responsible consumption and production culture, linking education, research, community action, and industry partnerships to advance SDG 12 in Kazakhstan and beyond.

## PROGRESS ON SDG 12 - RESPONSIBLE CONSUMPTION AND PRODUCTION

Initiative	Target Audience	Key Outcomes
Ethical Sourcing Policy for Food and Consumables	Suppliers, food service providers	70% of food purchases sourced locally; packaging waste reduced by 12%; 15 local eco-suppliers certified under ethical sourcing standards
Plastic Reduction & Waste Management Policy	Students, staff	10% annual plastic reduction target achieved; 2 tons of plastic collected and recycled; total waste: 123 tons (61% recycled, 39% landfill); biodegradable materials introduced in 50% of campus facilities
Eco Hub KazNU & "Zero Waste Campus" Campaign	Students, faculty, staff	90% of university buildings equipped with recycling bins; over 1,500 participants in eco-trainings; 5 eco-startup projects launched under national "Clean Kazakhstan" program
"Stop Plastic" & "Taza Kazakhstan" Environmental Campaigns	University community, Almaty residents	2 tons of plastic collected; 15 tons of solid waste removed; more than 2000 volunteers engaged annually
Hazardous Waste Management Policy	Research labs, facilities	100% compliance in hazardous waste disposal; 25 laboratories upgraded with modern safety and recycling systems
Sustainable Procurement Integration	Contractors, suppliers	85% of vendors meet sustainability criteria; inclusion of eco-criteria in all new supplier contracts; monitoring of compliance via annual audits
Eco-Fair "Darmarka" & Reuse Initiatives	Students, faculty, staff	Over 500 kg of clothes and household items collected and redistributed; 800 participants promoted reuse and circular economy practices
Educational & Research Initiatives (Round Table, Seminars, Eco-Workshops)	Students, researchers, policymakers	More than 10 scientific events held on circular economy and responsible production; national Roadmap for Environmental Monitoring developed; participation in updating National Plan on POPs
Public Awareness Events ("From Waste to Resources")	General public, students	Reached over 3000 participants; enhanced environmental literacy and awareness of sustainable consumption culture
Ethical Sourcing Policy for Food and Consumables	Suppliers, food service providers	70% of food purchases sourced locally; packaging waste reduced by 12%; 15 local eco-suppliers certified under ethical sourcing standards





#### Major Measurable Outcomes of KazNU's SDG 12 Initiatives (2024–2025):

##### 1. Ethical Sourcing Policy for Food and Consumable Supplies:

- 70% of food purchases sourced locally from eco-friendly and socially responsible suppliers.
- Packaging waste reduced by 12% through the use of biodegradable and recyclable materials.
- 15 local suppliers certified under ethical sourcing standards.

##### 2. Plastic Reduction and Waste Management Policy

- 10% annual plastic reduction goal successfully achieved in 2025.
- 2 tons of plastic collected and recycled through university campaigns.
- Total waste generated: 123 tons - 75 tons (61%) recycled and 48 tons (39%) sent to landfill
- Biodegradable materials introduced in 50% of campus facilities.

##### 3. Eco Hub KazNU and “Zero Waste Campus” Campaign

- 90% of university buildings equipped with recycling bins.
- More than 1500 students, faculty, and staff trained in waste sorting and recycling practices.
- 5 eco-startup projects launched under the national “Clean Kazakhstan” program

##### 4. “Stop Plastic” and “Taza Kazakhstan” Environmental Campaigns

- 2 tons of plastic waste collected and recycled.
- 15 tons of solid waste removed during community clean-up events.
- Over 2000 volunteers engaged annually, including students and Almaty residents.

##### 5. Hazardous Waste Management Policy

- 100% compliance achieved in hazardous and chemical waste disposal.
- 25 research laboratories upgraded with modern waste treatment and safety systems.

##### 6. Sustainable Procurement Integration

- 85% of vendors and contractors met the university's sustainability criteria.
- Environmental and social standards included in all new supplier contracts.
- Regular sustainability audits conducted to monitor partner compliance.

##### 7. Eco-Fair “Darmarka” and Reuse Initiatives

- Over 500 kg of clothing and household items collected and redistributed.
- More than 800 participants promoted reuse and circular economy practices.
- Collaboration established with the StopMusor project and the UNESCO Department.

##### 8. Educational and Research Events on Circular Economy

- Over 10 scientific events (round tables, seminars) held on sustainable production and consumption.
- National Roadmap for Environmental Monitoring developed with the Ministry of Ecology.
- Active participation in updating Kazakhstan's National Implementation Plan on Persistent Organic Pollutants (POPs).

##### 9. Public Awareness and Community Engagement Events

- “From Waste to Resources: New Culture of Consumption” event reached over 3,000 participants.
- Student campaigns such as “Brighten the World Around You” encouraged daily sustainable practices.
- Strengthened collaboration between academic departments, NGOs, and the public sector.

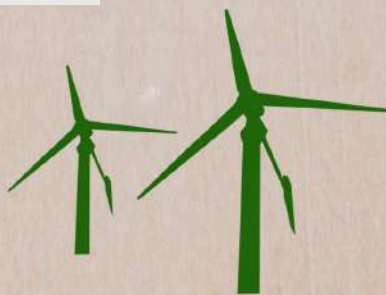
##### 10. Industrial and Practical Learning Integration

- Student visits to AO “Caspian Beverage Holding” and other sustainable enterprises.
- Practical training on eco-friendly production, waste processing, and circular economy solutions.
- Enhanced link between theoretical education and real-world sustainability practices.

In 2024 - 2025, Al-Farabi Kazakh National University demonstrated tangible progress toward SDG 12 – Responsible Consumption and Production, integrating sustainability into education, research, operations, and community engagement. Through systematic policies such as ethical sourcing, plastic reduction, and sustainable procurement, the university achieved measurable environmental improvements — including a 61% waste recycling rate, 70% local food sourcing, and 10% annual reduction in plastic use.

Practical initiatives led by the Eco Hub KazNU and campaigns like “Zero Waste Campus”, “Taza Kazakhstan”, and “Stop Plastic” fostered a strong culture of environmental responsibility among students and staff, while partnerships with government and industry strengthened Kazakhstan’s transition to a circular and green economy.

Overall, KazNU’s actions illustrate a comprehensive and results-oriented approach to sustainable development - linking policy, education, research, and community action - and positioning the university as a national leader in advancing SDG 12.





# SDG 13 - CLIMATE ACTION

**13** CLIMATE ACTION





Al-Farabi KazNU actively measures and monitors the amount of low-carbon energy used on campus. The university tracks renewable energy sources such as solar panels and wind turbines installed across its facilities. Within the framework of the Carbon Neutrality Policy, annual energy audits and monitoring are conducted through automated systems to reduce dependence on carbon-intensive sources.

- Total energy used: 9,660 MWh
- Low-carbon energy used: 2,000 MWh

These data are presented in the university's Action Plan for Managing and Reducing CO<sub>2</sub> Emissions and published in Sustainable Development Report.



KazNU provides educational programs and awareness campaigns focused on climate change mitigation, adaptation, and disaster preparedness. Courses such as Ecology, Meteorology, Hydrology, Life Safety and Environmental Protection, and Natural and Technogenic Risks train future experts in environmental resilience. Key examples include:

- Round Table "Empowering Future Scientists: Climate Action and Youth Activism"
- Summer School "Protect Environment – 2025"
- Campaign "Clean Kazakhstan"
- Educational event "Environmental Education as a Step Towards Sustainable Development"

In 2025 alone, more than 2500 students and 400 faculty and staff participated in climate-related training and community campaigns.

KazNU has developed a comprehensive Climate Action Plan and a University Climate Change Policy, aligned with Kazakhstan's national environmental strategy.

The plan aims to:

- Reduce the university's carbon footprint.
- Strengthen climate resilience in the campus and local community.
- Collaborate with government agencies, NGOs, and the private sector.

Through the Center for Sustainable Development and Rational Environmental Management, the plan is shared with local authorities and public organizations to support joint implementation of climate actions.

KazNU actively cooperates with national ministries and agencies in disaster risk management and adaptation planning. University scientists participate in:

- Aerial surveys of avalanche-prone and moraine lake areas
- Development of a Roadmap for Environmental Monitoring with the Ministry of Ecology and Natural Resources
- Research on landslide-prone territories of Tole Bi District

These activities contribute to Kazakhstan's national disaster preparedness and climate resilience programs.

The university provides analytical data, technical expertise, and capacity building to local and regional authorities for early warning and climate risk monitoring systems.

Examples include:

- Joint initiatives with the Ministry of Ecology and the Ministry for Emergency Situations.
- Scientific conferences such as "Urban Sustainability: Challenges and Solutions" and GISCA 2025.
- Training sessions on earthquake safety and seismic preparedness for 5000 participants.

These collaborations enhance local disaster resilience and improve climate data management.

KazNU actively collaborates with NGOs and civil society organizations on climate adaptation and sustainable development. Examples include partnerships with Public Foundation "Karagach", EKA Movement, and NGO "Eurasia".



Joint actions include:

- Environmental initiatives and green technology exchanges
- Participation in the international workshop “INCREASE: Building Societal Resilience in the Face of Climate Change”
- Media training with Deutsche Welle Academy for young scientists on sustainability and climate communication.

Over 25 joint events were held with NGOs in 2024–2025, reaching more than 5000 participants nationwide.

University continues to advance international cooperation, scientific research, and education in support of urgent climate action and adaptation, in line with SDG 13.

A key highlight in 2025 was the International Scientific Conference GISCA2025 – “Digital Earth Uniting All”, which brought together over 130 scientists and experts from Austria, Germany, the USA, China, and Central Asian countries such as Kyrgyzstan, Uzbekistan, Tajikistan, and Kazakhstan. The conference featured strong representation from global leaders in geoinformatics, including ESRI, Eurasia-Pacific UNINET, Trimble, and ACA\*GIScience.

Critical for SDG13, the conference focused on climate mapping, remote sensing, and digital Earth technologies. Practical case studies were presented during the “Climate and Environment” session, and new international projects were launched to monitor transboundary water basins and manage environmental resources using satellite data - a vital step to strengthen climate resilience and support evidence-based policy.



Expanding the university's global climate agenda, KazNU students and faculty participated in the International UNEP Competition in Shanghai, showcasing innovative solutions and youth-driven approaches to environmental sustainability.

A significant strategic partnership was established between KazNU's Department of Meteorology and Hydrology and RSE "Kazaeronavigatsia", aimed at advancing scientific and technological capacity in meteorology and hydrology to better address climate-related challenges in Kazakhstan and Central Asia.

Strengthening global knowledge exchange, KazNU hosted an expert meeting with an international specialist in water security and climate change adaptation, facilitating dialogue on climate risks and joint adaptation strategies.

At the regional level, the International Forum “Universities, Business and Climate Change”. SCO Territory” was held across Moscow, Bishkek, and Almaty, highlighting multi-stakeholder cooperation between academia, industry, and governments to tackle climate risks and develop innovative climate solutions in the Shanghai Cooperation Organization region.



The International Round Table “Glaciers, Water and Climate: From Observations to Solutions” held at KazNU’s Department of Meteorology and Hydrology addressed pressing issues such as glacier melting, water resource management, and regional climate monitoring. Scientists and students shared observational data and discussed adaptive measures for vulnerable mountain ecosystems. Strengthening the university’s regional leadership in climate science, KazNU co-hosted the II International Congress of Turkic World Geographers, which provided a platform for geographical cooperation and collective action to address climate-related challenges in the Turkic region. To engage youth in climate solutions, the university held a round table on “Climate Change – a Global Threat or New Opportunities?” where students and experts debated mitigation and adaptation pathways, and organized the youth-focused event “Empowering Future Scientists: Round Table on Climate Action and Youth Activism”, empowering the next generation to lead climate initiatives. Together, these initiatives demonstrate KazNU’s comprehensive approach to climate action - combining international research partnerships, regional scientific cooperation, youth engagement, and innovative technology to address the global climate crisis and advance SDG 13.

Initiative	Target Audience	Key Outcomes
Carbon Neutrality & Low-Carbon Energy Monitoring	University facilities, energy managers	Total energy used: 9660 MWh; low-carbon energy: 2000 MWh (approximately 21%); annual audits and automated monitoring systems implemented
Climate Action Plan & University Climate Change Policy	Students, faculty, staff, local authorities	Policies aligned with national strategy; collaborative climate actions with local authorities; strengthened campus and community resilience
Climate Education Programs & Awareness Campaigns	Students, faculty, community	More than 2500 students and 400 faculty participated; key events: Round Table “Empowering Future Scientists”, Summer School “Protect Environment – 2025”, Campaign “Clean Kazakhstan”
Disaster Risk Management & Adaptation Projects	National ministries, local authorities	Aerial surveys of avalanche-prone areas; landslide research in Tole Bi District; Roadmap for Environmental Monitoring; 5000 participants trained in earthquake and seismic preparedness
NGO Collaboration & Civil Society Engagement	NGOs, students, local communities	Over 25 joint events; more than 5000 participants nationwide; initiatives include environmental projects, green tech exchanges, climate communication workshops
International Scientific Cooperation & Conferences	Global researchers, students	GISCA 2025 conference with 130 experts; participation in UNEP Competition (Shanghai); partnership with RSE “Kazaeronavigatsia”; international expert meetings on water security and climate adaptation
Regional & Multi-Stakeholder Initiatives	Universities, industry, governments	SCO Forum on Universities, Business and Climate Change; International Round Table on glaciers, water, and climate; II International Congress of Turkic World Geographers
Youth Engagement & Capacity Building	Students, young scientists	Round tables, debates, and youth-focused events; students empowered to lead climate initiatives and participate in research and monitoring



Key Indicators of KazNU's Progress toward SDG 13 - Climate Action (2024–2025):

1. Energy Consumption and Low-Carbon Energy Use

- Total energy consumed: 9660 MWh
- Low-carbon (renewable) energy used: 2000 MWh (approximately 21% of total energy)
- Annual energy audits conducted under the Carbon Neutrality Policy
- Automated monitoring systems implemented across campus

2. Carbon Footprint Management

- Implementation of Action Plan for Managing and Reducing CO<sub>2</sub> Emissions
- Alignment with University Climate Change Policy and national environmental strategy
- Aim to reduce campus carbon footprint and strengthen climate resilience

3. Climate Education and Awareness

- Integration of climate change topics into courses: Ecology, Meteorology, Hydrology, Life Safety, Environmental Protection, Natural and Technogenic Risks
- Key educational initiatives: Round Table “Empowering Future Scientists: Climate Action and Youth Activism”, Summer School “Protect Environment – 2025”, Campaign “Clean Kazakhstan” “Environmental Education as a Step Towards Sustainable Development”
- Participation in climate-related training and campaigns: more than 2500 students, 400 faculty and staff

4. Disaster Risk Management and Adaptation

- Cooperation with national ministries (Ecology, Emergency Situations)
- Scientific activities: Aerial surveys of avalanche-prone and moraine lake areas, Research on landslide-prone territories (Tole Bi District), Development of Roadmap for Environmental Monitoring
- Training sessions for 5,000 participants on earthquake and seismic preparedness

5. NGO and Civil Society Engagement

- Partnerships with Public Foundation “Karagach”, EKA Movement, NGO “Eurasia”
- Joint actions: environmental initiatives, green technology exchanges, INCREASE workshop, media training
- Over 25 joint events in 2024–2025, reaching more than 5000 participants nationwide

6. International Scientific Cooperation

- Hosting of GISCA 2025 – “Digital Earth Uniting All” with 130 international experts
- Participation in UNEP International Competition (Shanghai)
- Strategic partnership with RSE “Kazaeronavigatsia” for meteorology and hydrology research
- Expert meetings on water security and climate adaptation

7. Regional and Multi-Stakeholder Initiatives

- International Forum “Universities, Business and Climate Change – SCO Territory” (Moscow, Bishkek, Almaty)
- International Round Table “Glaciers, Water and Climate: From Observations to Solutions”
- Co-hosting II International Congress of Turkic World Geographers

8. Youth Engagement and Capacity Building

- Round Tables and debates on climate change and adaptation pathways
- Youth-focused events empowering future scientists in climate action
- Active participation of students in climate research, monitoring, and awareness programs

Al-Farabi Kazakh National University demonstrates substantial progress toward SDG 13 – Climate Action through measurable achievements in renewable energy use, carbon reduction, climate education, and international cooperation.

By combining scientific research, policy engagement, and youth-led initiatives, KazNU strengthens Kazakhstan's climate resilience and contributes to the global fight against climate change. The university's comprehensive Climate Action framework effectively links education, innovation, and community outreach to achieve a sustainable and carbon-conscious future.

# SDG 14 - LIFE BELOW WATER

**14** LIFE  
BELOW WATER







Al-Farabi KazNU consistently contributes to the protection of aquatic ecosystems through scientific research, educational activities, field training, and international cooperation, actively supporting SDG 14.

The university conducts research on the impact of fishing practices and develops sustainable fisheries and aquaculture methods, collaborating with the maritime industry to implement evidence-based solutions. Examples include the International Scientific Round Table: Maritime Legislation, a PhD dissertation on fish biodiversity in Balkhash, and the chimeric endolysins project for sturgeon pathogens.

In a dedicated public seminar titled “Measures to Prevent Pollution of Marine Ecosystems Caused by Human Activities” the university engaged approximately 150 students, faculty, and local community members in awareness raising and mitigation strategies for marine pollution. Students gain practical knowledge on ocean-friendly practices through a master class on “Green Technologies for the Sustainable Maintenance of the Oceans”, (approximately 40 participants), while public seminars address marine conservation issues such as “Protecting Marine Fauna and Flora from Plastic Pollution” and “Measures to Prevent Pollution of Marine Ecosystems Caused by Human Activities”, building community capacity to reduce marine litter.

The Department of Civil Law and Civil Procedure, Labor Law held an online and offline meeting on the topic of the 14th Goal of the UN SDGs: ‘Conservation of Marine Ecosystems’. This session brought together approximately 80 legal scholars, students, and policymakers to discuss the regulatory frameworks needed to protect marine ecosystems and align institutional practices with SDG 14.

This session brought together legal scholars, students, and policymakers to discuss the regulatory frameworks needed to protect marine ecosystems and align institutional practices with SDG 14.” Following these initiatives, 30 participants of 4th-year students organized an event on SDG14 “Conservation of Marine Ecosystems” in Dormitory No. 17. During the event, students identified key causes of environmental problems, emphasizing that environmental pollution represents the greatest threat to the planet and future generations. They highlighted that between 5 and 12 million tons of plastic enter the oceans annually, severely impacting marine animals and microorganisms. The session concluded with an active discussion, where participants shared ideas and practical suggestions on how they can contribute to sustainable development and environmental protection in their daily lives. In addition to marine-focused initiatives, KazNU also addresses freshwater conservation and sustainable water use.

One of the initiatives is also the Annual Intellectual Competition “HYDROINTELLIGENT V”, which brings together 50 - 100 students and young scientists to tackle pressing water resource challenges and develop innovative solutions for sustainable water use. KazNU’s Department of Meteorology and Hydrology hosted the International Round Table “Glaciers, Water and Climate: From Observations to Solutions”, with 40 experts and students discussing the critical role of water resources in climate regulation and ecosystem health, including the protection of river basins and coastal zones.

Students and faculty conduct practical research to safeguard aquatic systems. For example, the project “Surface Runoff Waters and Their Geological Work” explores how runoff affects landscapes and freshwater ecosystems, providing insights for sustainable watershed management. In addition, a new study on river morphodynamics titled “Forecasting Channel Morphodynamics in the Ulken Almaty River (Ile Alatau, Kazakhstan)” was published by KazNU and UPV researchers, contributing to sustainable land and water management strategies.

KazNU also established the Laboratory for Water Quality Analysis and Ecosystem Protection which annually analyzes more than 200 water samples to model surface and groundwater pollution and the Laboratory of Remote Sensing Technology, developed jointly with Chinese partners, to monitor environmental problems including lake and river degradation across Central Asia.

Students also engage in public debates on ocean health, such as the discussions “The Future of the Oceans: How to Reduce the Ecological Footprint?”, Protecting Marine Fauna and Flora from Plastic Pollution which raised awareness about marine pollution and practical actions to minimize human impact on ocean ecosystems.

KazNU integrates water conservation into community outreach. Professor Koshim Asima Galimzhanovna’s career guidance session at “LAKEVIEW SCHOOL ALMATY” highlighted the importance of water professions and youth engagement in protecting aquatic environments.

Practical training reinforces students’ understanding of aquatic ecosystem monitoring. For example, 50 first-year students of the Hydrology program completed extensive field training, gaining hands-on skills in assessing the condition of water bodies. A dedicated field expedition in West Kazakhstan Region assessed the 3 ecological state of local water resources, helping future specialists apply their knowledge in real-world contexts.

Educational campaigns further strengthen the university’s impact. During events like “World Water Resources Day” and “Clean Water – Clean Future” excursion excursions, and a round table on “Conservation of Marine Ecosystems”, students and schoolchildren (approximately 300 participants) learned about the importance of clean water resources, sustainable management, and marine biodiversity conservation. This round table engaged students in discussions on threats to marine ecosystems and biodiversity, fostering awareness and practical approaches to protecting aquatic life. Students and schoolchildren learned about the importance of clean water resources for healthy ecosystems and communities.

On the international front, KazNU strengthens regional collaboration through events like the II International Congress of Turkic World Geographers, which fostered cooperation on transboundary water resource management and aquatic biodiversity conservation.





Practical cooperation continues under the “Water Diplomacy” program. A working meeting with IWMI (International Water Management Institute), representatives focused on joint research for sustainable water governance, including measures to protect freshwater and marine ecosystems.

Furthermore, KazNU implements strict water quality standards and monitoring, conducts research on chemical, biological, and physical indicators of water bodies, and develops policies for pollution prevention, including the impact of land-based activities. Relevant documents include the Water Quality Standard Policy and Water Discharge Guidelines, Concept of Sustainable Development for Water Resources, and the University Policy to Ensure Availability and Rational Use of Water Resources. These initiatives, combined with international cooperation, ecosystem restoration efforts, and continuous research on anthropogenic factors, demonstrate KazNU’s comprehensive approach to aquatic ecosystem protection.

Initiative	Target Audience	Key Outcomes
Seminars on Marine Pollution Prevention	Students, faculty, local community	Approximately 150 participants; increased awareness of marine pollution; identification of practical mitigation strategies; 5–12 million tons of plastic pollution discussed
Legal Framework Discussions on Marine Conservation	Legal scholars, policymakers, students	Approximately 80 participants; recommendations for aligning institutional policies with SDG 14; promoted regulatory approaches for marine ecosystem protection
Student-led SDG 14 Events	Students, dormitory residents	Approximately 30 participants; analysis of environmental threats; shared practical actions to reduce ecological footprint; awareness raised on plastic impact on marine life
HYDROINTELLIGENT V Competition	Students, young scientists	50–100 participants annually; innovative solutions developed for sustainable water use; student engagement in applied water resource research
International Round Table “Glaciers, Water and Climate”	Researchers, students, policymakers	40 experts; discussed freshwater and marine ecosystem protection, river basin and coastal zone management; facilitated international collaboration
Practical Research Projects (Runoff, River Morphodynamics)	Students, faculty	More than 5 field expeditions; over 200 water samples analyzed; studies published on river morphodynamics; supported sustainable watershed management strategies
Laboratories for Water Quality and Remote Sensing	Students, researchers	5 lakes and rivers monitored; surface and groundwater pollution modeled; joint research projects with international partners
Public Debates & Awareness Campaigns	Students, schoolchildren, community	400 participants; topics included ocean health, plastic pollution, and ecological footprint; fostered active youth engagement and community outreach
Educational Campaigns & Field Training	Students, schoolchildren	300 participants; field expeditions conducted in West Kazakhstan Region; practical skills in aquatic ecosystem monitoring acquired
International Cooperation & Water Diplomacy	Researchers, NGOs, policymakers	Collaboration with IWMI and international experts; joint research on sustainable water governance and protection of aquatic ecosystems
Implementation of Water Quality Standards & Monitoring (Water Quality Standard Policy, Water Discharge Guidelines, Concept of Sustainable Development for Water Resources, University Policy to Ensure Availability and Rational Use of Water Resources)	Students, researchers, policymakers	Established strict water quality standards; continuous monitoring of chemical, biological, and physical indicators; development of comprehensive policies for pollution prevention; reinforced evidence-based decision-making for ecosystem protection



### Key Indicators of KazNU's Progress toward SDG 14 – Life Below Water (2024–2025)

#### 1. Participation and Awareness

- 1000 students, faculty, and community members participated in SDG 14 events.
- 150 participants in marine pollution prevention seminars; 80 in legal framework sessions; 30 in student dormitory events.

#### 2. Research and Monitoring

- More than 5 field expeditions assessing river and lake ecosystems.
- Over 200 water samples analyzed for quality and pollution studies.
- 5 rivers and lakes monitored via remote sensing and lab analysis.

#### 3. Youth Engagement

- 50 - 100 students participated in HYDROINTELLIGENT V annual competition.
- 400 students and schoolchildren engaged in debates, round tables, and educational campaigns.
- Hands-on training in aquatic ecosystem monitoring for first-year Hydrology students ( approximately 50 participants).

#### 4. International and Regional Cooperation

- 40 experts participated in International Round Table on glaciers, water, and climate.
- Collaboration with IWMI and Chinese partners on water quality, remote sensing, and ecosystem protection.
- Participation in II International Congress of Turkic World Geographers and other regional initiatives.



#### 5. Impact on Ecosystem Protection

- Public campaigns increased awareness of plastic pollution ( approximately 5 - 12 million tons entering oceans annually highlighted).
- Practical solutions proposed for sustainable water use and marine conservation.
- Enhanced policy and legal frameworks supporting aquatic ecosystem management.

Al-Farabi KazNU demonstrates significant progress toward SDG 14 by combining scientific research, policy discussions, student engagement, and international collaboration. These efforts foster awareness, practical skills, and innovative solutions, aligning education, science, and community outreach with the goal of conserving marine and freshwater ecosystems.





# SDG 15 - LIFE ON LAND



Al-Farabi KazNU is actively advancing the conservation and sustainable use of terrestrial ecosystems through practical restoration projects, scientific research, field training, and community outreach, all contributing to SDG 15.

The university has an established policy for the identification, monitoring, and protection of species listed in the IUCN Red List and national conservation lists, currently monitoring 120 species of flora and fauna.

Initiatives include educational programs, volunteer activities, ecological clean-ups, research, and international partnerships:

- Opening of the Ecological Hub, attended by 50 students and 20 faculty members.
- University-wide Clean-up, 2025 involving 350 participants, covering 10 hectares of campus and surrounding areas.
- Protect Environment-2025 Summer School with 60 students and 15 faculty engaging in hands-on restoration projects.

Collaborative research projects and programs such as the PolyU-KazNU Guest Lecture Series foster sustainable land management and conservation efforts with local communities. KazNU also hosts scientific conferences and round tables on ecosystem restoration and sustainable land legislation, including the Legal protection of lands seminar, (50 participants) and the Conference on natural resource legislation (75 participants).



A flagship initiative in 2025 is KazNU's large-scale work on the conservation of Kazakhstan's unique biodiversity, in particular the Sievers apple tree, a wild ancestor of all cultivated apple varieties. Students, faculty, and partners joined efforts for the ecosystem restoration project by planting 1200 Sievers apple tree seedlings in natural habitats. This work was also presented by KazNU's researchers at an international congress, emphasizing the university's leadership in preserving genetic diversity and endemic species.

Other biodiversity initiatives include:

- Round Table on Restoration of Degraded Landscapes within SDG 15 (40 participants)
- Scientific event: Conservation of Flora and Fauna Biodiversity for Sustainable Development (50 participants)
- Student conference (Farabi Alemi, 03.04.2025) with 120 student presentations
- Research on perennial wheat for soil and biodiversity conservation, involving 35 students and 10 researchers

Practical environmental education remains a core part of the university's approach. Students attended 15 field lectures and 5 ecological excursions in the Almaty State Nature Reserve, studying ecosystem restoration in real conditions. Environmental actions such as the "Caring for Birds – Caring for Nature!" campaign involved 200 participants, fostering practical stewardship and awareness of the importance of protecting native fauna. Open Educational Hours on "Conservation of Biodiversity and Prevention of Their Extinction" engaged 150 students and public participants.



Thematic educational hours - “The Role of Education in Preserving Biodiversity”, “Conservation of Biodiversity and Prevention of Their Extinction”, and “The Role of Zoology in Preserving Biodiversity” - were attended by 300 students, building environmental literacy and instilling responsibility for the protection of species and habitats.

The Faculty of Biology and Biotechnology offers educational programs at the bachelor's, master's, and doctoral levels focused on biodiversity conservation, ecosystem management, and environmental protection. In 2025, 350 students received hands-on experience through fieldwork, participation in international symposia, and research on rare and endangered species.

KazNU also promotes sustainable land use in agriculture and tourism. Students in the Land Management and Cadastre program engaged in field practices and applied research on soil degradation and restoration:

- 1st-year students completed field training practice – 45 participants
- Field studies of irrigated lands of the Turkestan region – 20 teachers and 30 students.

For tourism, the university conducted a A roundtable on ecotourism and nature conservation, 25.04.2025 with 50 participants and organized an Excursion to Kok-Tobe Park for 75 students.

Research-oriented field studies strengthen this impact. Ongoing soil pollution assessments in Western Kazakhstan involve 40 students and 10 researchers, covering 250 km<sup>2</sup> of land, while exploratory expeditions allow students to analyze Kazakhstan's rich natural and socio-ecological diversity.

The university promotes green thinking through interactive initiatives: field lectures for ecology students, excursions to the Main Botanical Garden of Almaty (80 participants) and round tables on the role of botanical gardens and urban parks in conserving floral diversity. The Tree Planting Campaign in the Turgan Gorge within the national environmental movement

Taza Kazakhstan” involved 200 students, faculty, and volunteers, planting 500 trees to restore degraded areas.

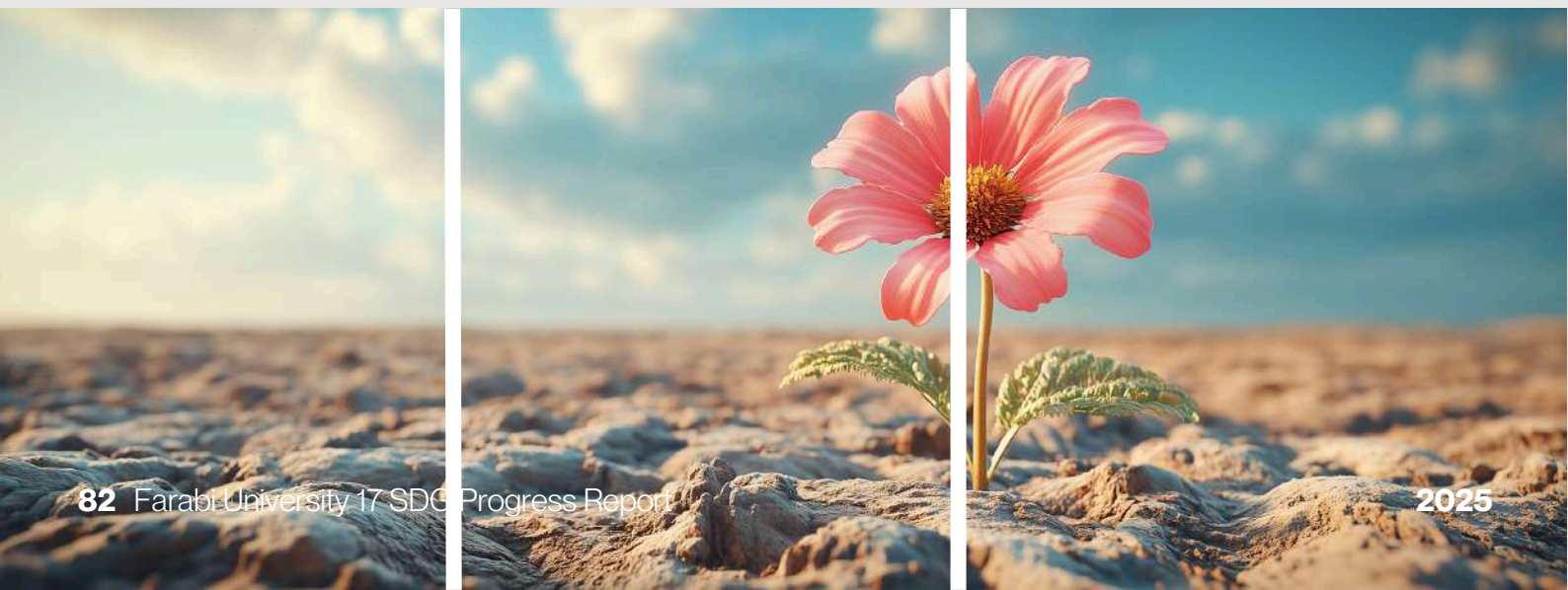
Innovation and science play a critical role. The Ecological Hub The Ecological Hub opened at KazNU serves as a learning and research platform for sustainable land management and ecosystem services. Students study advanced methods such as phytoremediation technologies to reclaim polluted or degraded land (3 projects, 40 students) and learn modern approaches to seed conservation at lectures like like “Seed Bank of the Flora of Kazakhstan” (120 participants). Policy dialogue is promoted through roundtables and seminars on (Combating Desertification and Land Degradation) (60 participants), providing practical strategies for sustainable land use.

KazNU integrates biodiversity considerations into campus planning and infrastructure development. Environmental impact assessments are conducted before 6 construction projects, with measures to minimize effects on flora and fauna. The Green Campus Policy ensures ecosystem preservation, greening, and habitat creation for 25 native species on 5 hectares of campus.

The university has implemented a University Policy to Reduce the Impact of Alien Species on Campus, prioritizing native plants in landscaping (80% of campus plants), regular monitoring, safe disposal of garden waste, student and staff education, and cooperation with conservation organizations. (Policy for identifying and monitoring species, List of biodiversity research projects).

KazNU actively engages with local authorities and communities in sustainable urban development projects:

- Forum on Science, Business, and Production – 300 participants;
- Sustainable urban development discussion – 150 participants
- Oversight of campus construction projects with environmental considerations (4 major projects in 2024 - 2025).



KazNU actively collaborates with governmental and international partners. The university has prepared a [roadmap for sustainable land and forest management](#) in cooperation with the Ministry of Ecology and Natural Resources and participates in projects aimed at expanding protected areas and studying plant biodiversity in Central Asia. At the [International Forum on the Conservation of Central Asia's Biodiversity](#), university representatives discussed joint strategies to protect fragile ecosystems and species across borders. Related topics like the protection of the [Caspian Sea's biodiversity](#) were explored at dedicated discussions, highlighting the interconnection of terrestrial and aquatic ecosystems.

KazNU's achievements and initiatives have also been presented at [international](#) and [UN events](#), reinforcing the university's global engagement in advancing SDG 15 and contributing to international dialogues on sustainable land management and biodiversity protection.

Initiative	Target Audience	Key Outcomes
Sievers Apple Tree Conservation & Planting	Students, faculty, local partners	1200 seedlings planted; 150 participants involved; preserved genetic diversity of endemic species; ecosystem restoration in natural habitats
Round Tables on Restoration of Degraded Landscapes	Researchers, students, policymakers	40 participants; strategies developed for sustainable land management; exchange of best practices across regions
Student Conferences (Farabi Aleml, 03.04.2025)	Students, faculty	120 presentations by students; raised awareness of biodiversity conservation; promoted practical engagement in restoration projects
Field Training in Almaty State Nature Reserve	Students	15 field lectures and 5 ecological excursions; 200 students participated; hands-on experience in ecosystem restoration
University-wide Clean-up (2025)	Students, staff, community	350 participants; cleaned 10 hectares; promoted volunteer stewardship and environmental awareness
Tree Planting Campaign in Turgan Gorge	Students, faculty, volunteers	500 trees planted; 200 participants; contributed to degraded land restoration; strengthened community engagement
Land Management & Cadastre Field Practices	Students, faculty	45 first-year students completed field practice; 50 students and 20 faculty conducted applied research on soil degradation; supported sustainable agricultural land use
Ecological Hub Programs	Students, researchers	3 research projects; 40 participants studying phytoremediation; advanced skills in sustainable land management and ecosystem services
Environmental Education & Awareness Hours	Students, public	300 - 400 participants; thematic sessions on biodiversity protection and zoology; enhanced environmental literacy
Green Campus Policy & Alien Species Control	Students, staff, facilities managers	25 native species preserved on 5 hectares; 80% campus plants are native; reduced introduction of invasive species; integrated biodiversity into campus planning
Policy Dialogues on Land Degradation & Desertification	Researchers, policymakers	60 participants; practical strategies proposed for combating land degradation; informed national policy development
Excursions & Educational Campaigns (Botanical Gardens, Parks)	Students	80 participants; practical understanding of plant diversity and urban ecosystem conservation





### Key Indicators of KazNU's Progress toward SDG 15 – Life on Land (2024–2025)

#### 1. Participation and Awareness

- Total of 1200 students, faculty, and community members engaged in SDG 15 activities.
- 350 participants in university-wide clean-up; 200 participants in tree planting campaigns; 120 students presented at biodiversity conferences.

#### 2. Research and Monitoring

- 3 ecological research projects in the Ecological Hub.
- Field studies on soil degradation and irrigation lands involved 50 students and 20 faculty.
- 15 field lectures and 5 excursions conducted for practical ecosystem restoration training.

#### 3. Student and Community Engagement

- Hands-on planting of 1200 Sievers apple trees.
- Environmental education programs reached 300 - 400 students and public participants.
- Field training in land management programs for 45 first-year students.

#### 4. International and Regional Cooperation

- Collaboration with Ministry of Ecology, international partners, and PolyU on sustainable land management.
- Participation in international conferences and forums (biodiversity in Central Asia, Caspian Sea conservation).
- Round tables and seminars facilitated cross-border strategies for ecosystem restoration.

#### 5. Impact on Ecosystem Protection

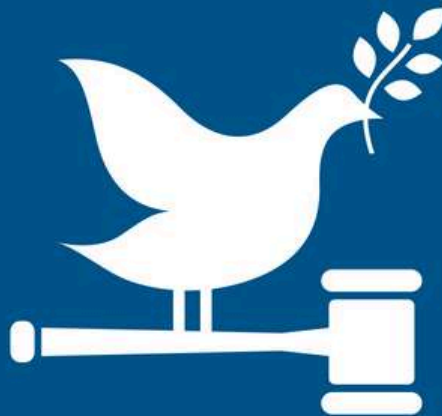
- Restoration of degraded landscapes through planting campaigns and field practices.
- Preservation of 25 native species on campus and prevention of invasive species introduction.
- Integration of sustainable land management strategies into research, policy, and community outreach.



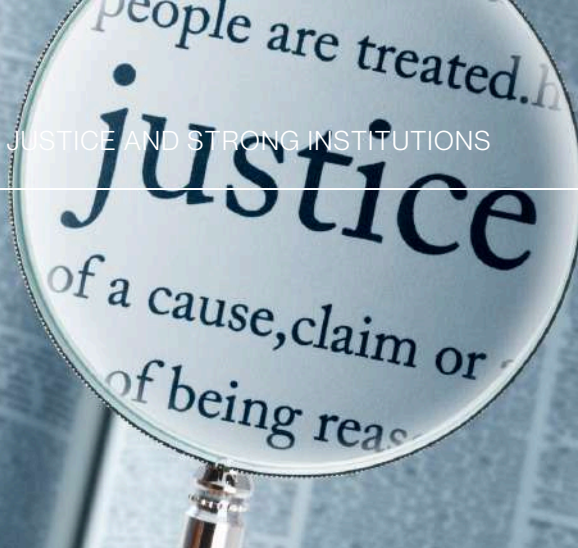


# SDG 16 - PEACE, JUSTICE AND STRONG INSTITUTIONS

**16** PEACE, JUSTICE  
AND STRONG  
INSTITUTIONS







Al-Farabi KazNU consistently contributes to the promotion of peace, the rule of law, human rights, and the development of effective, accountable institutions, fully aligning its activities with SDG 16.

KazNU ensures elected representation of students and staff in university governance. Through the Higher Student Council (comprising 35 elected student representatives) and faculty-level self-government bodies, students participate in academic and social initiatives and elect Deans for Student Affairs who represent their interests within faculty administrations. Student representatives are members of the Academic Council (10% of its membership). In 2025, over 400 students participated in faculty and university elections, promoting inclusive and transparent governance.

The university also recognizes and supports independent student associations such as the "Sunkar" Student and Undergraduate Trade Union and faculty student councils. These organizations unite more than 2000 active members, implement more than 50 independent initiatives annually, and participate in national and international youth forums. KazNU provides institutional and financial support for these groups, ensuring student autonomy and civic engagement.

These organizations implement independent initiatives, organize events, and participate in national and international projects.

By allocating resources and venues for their work, KazNU ensures institutional support for student autonomy and civic engagement.

KazNU maintains formal policies and memoranda guiding cooperation with public, youth, and business organizations. Partnerships with governmental bodies, civil society, and international corporations (such as ZTE Corporation and Harbin Engineering University) - promote innovation, environmental protection, and social development. Volunteer programs like "Menin BAUYRYM" engaged over 300 volunteers in 2025, supporting vulnerable groups and strengthening social inclusion and civic responsibility.

To further this mission, KazNU provides meaningful participation mechanisms for local authorities, residents, and NGOs through consultative forums, working groups, and open discussions. Events such as the Forum "Integration of Science, Business, and Production" (300 participants) and participation in National Kurultai sessions illustrate inclusive policy.

On September 26, 2025, Al-Farabi KazNU hosted a joint round table organized by the Commission under the Commissioner for Human Rights of the Republic of Kazakhstan and the UN Youth Council on the topic "Kazakhstan's Youth Contribution to the UN Sustainable Development Goals".

The event brought together young leaders, university faculty, and representatives of international

organizations to discuss the role of youth in promoting human rights, justice, and sustainable development.

KazNU maintains a zero-tolerance policy on corruption, supported by formal anti-corruption standards, transparency policies, and internal audits. The Compliance Control Service conducted 10 awareness seminars and 3 university-wide campaigns in 2025, including "No to Corruption" and "University without Corruption". These initiatives cultivate ethical awareness and integrity among students and staff.

The university also upholds academic freedom through its Academic Policy and transparent publication incentive system. In 2025, more than 1200 faculty and researchers participated in international collaborations, while 145 million KZT was allocated for research publication incentives. Faculty and students freely pursue innovative research directions and engage in open academic discourse, ensuring intellectual independence and institutional transparency.

KazNU contributes to evidence-based policymaking through expert advice, academic hearings, and capacity-building projects. In 2025, the university hosted five national expert hearings on topics such as artificial intelligence regulation, digital modernization of environmental legislation, and judicial reforms, projects with participation of over 250 policymakers and scholars. These activities demonstrate KazNU's impact on shaping effective and just governance frameworks at both national and regional levels.

A significant dimension of KazNU's engagement under SDG 16 is raising civic awareness and fostering a culture of peace through education and remembrance. The university organized events dedicated to the International Day of Liberation of Prisoners of Nazi Concentration Camps, linking historical memory to the universal values of justice, peace, and human dignity. Similar initiatives, such as the literary evening "Poems Born on the Maidan" and the discussion "Peace is the Highest Value" involved over 200 participants, encouraging reflection on unity, compassion, and civic responsibility as key elements of sustainable peace.

Strengthening legal culture and the rule of law remains a key priority. The Faculty of Law organized the international scientific-practical conference "Current Issues of Judicial Proceedings and New Trends in Law Enforcement Practice" (120 participants) and a series of guest lectures, including "Prosecutor's Office System and Legal Policy" and "International Day for the Right to the Truth about Gross Human Rights Violations". Law students also collaborated with the Cybercrime Counteraction Department of the Almaty City Police, gaining practical insight into digital safety and cyber law enforcement.

KazNU students demonstrate excellence in international legal innovation. At the MaxUP Legathon-2025, a student team received awards for developing creative digital solutions to legal challenges - illustrating the effectiveness of experiential learning and civic-minded innovation.



The university further promotes the principles of legality, ethics, and anti-corruption culture through educational sessions such as "Legality and the Rule of Law are the Foundation of Prosperity - New Kazakhstan", "Fundamentals of Law and Anti-Corruption Culture", and "Partnership for Sustainable Development and the Fight Against Corruption". Over 500 students and faculty members took part in these events in 2025.

To emphasize national values and inclusive institutions, KazNU organizes forums on the role of trade unions in protecting workers' rights (80 participants), hosts discussions such as "National Values are the Basis of the Continuous Education System" (100 participants), and supports social justice initiatives like "Preventing Child Abuse: Legal, Social, and Educational Aspects" (75 participants). The university also addresses issues of economic security and institutional governance through meetings like "Customs - the Guarantee of Economic Security" and open discussions about national unity - "Unity and Harmony - the Pillars of the Nation".

Through this diverse and interconnected work - ranging from democratic governance, legal education, and anti-corruption programs to human rights advocacy, civic awareness, and peace education - Al-Farabi KazNU demonstrates its unwavering commitment to building peaceful, just, and inclusive societies, thereby making a significant and measurable contribution to the achievement of SDG 16.



Initiative	Target Audience	Key Outcomes
University Governance and Student Representation	Students, faculty, administration	35 elected representatives in Higher Student Council; more than students involved in elections; 10% student membership in Academic Council; strengthened inclusive governance and accountability
Support for Independent Student Associations ("Sunkar" Trade Union)	Students, youth leaders	2000 active members; over 50 initiatives annually; institutional support for student autonomy and civic participation
Forum "Integration of Science, Business, and Production" & National Kurultai Participation	Policymakers, local authorities, students	300 participants; established consultative dialogue platforms; enhanced cooperation among academia, government, and business
UN Youth Council & Human Rights Commission Round Table	Students, youth, international organizations	Over 100 participants; advanced youth engagement in human rights and SDG discourse; promoted SDG 16.2.4 implementation
Anti-Corruption Campaigns and Compliance Programs	Students, staff	10 seminars and 3 campaigns ("No to Corruption", "University without Corruption"); 2000 participants; improved ethical standards and transparency
Academic Freedom and Open Research Policy	Faculty, researchers, students	1200 researchers involved in international projects; 145 million KZT allocated for publication support; reinforced academic independence
Expert Hearings and Policy Projects (AI, Digital Law, Judicial Reform)	Policymakers, researchers	5 hearings; more than 250 participants; contributed to evidence-based legislation and national reform initiatives
Commemorative and Peace Education Events	Students, faculty, public	3 remembrance events (International Day of Liberation from Nazi Camps); 200 participants; promoted peace, justice, and civic responsibility
Legal Education and Rule of Law Promotion	Law students, practitioners	120 participants in judicial conference; guest lectures on prosecution and human rights; practical cooperation with cybercrime department
MaxUP Legathon-2025	Law and IT students	2nd place award; developed digital legal solutions; showcased civic innovation and youth leadership
Ethics, Legality, and Anti-Corruption Educational Sessions	Students, faculty	500 participants in targeted sessions on rule of law and integrity; reinforced civic ethics culture
Forums on Trade Unions, National Values, and Social Justice	Students, educators, NGOs	80 - 100 participants per forum; strengthened awareness of workers' rights, social protection, and national unity
Economic Security and Unity Dialogues	Students, officials, community members	100 participants; enhanced understanding of institutional stability and civic harmony

Measured impacts of KazNU's actions on SDG 16 (2024–2025):

1. Governance and Participation

- 35 elected student representatives and 400+ students involved in governance processes.
- Over 2000 active members in independent student organizations.
- 300 participants in inclusive policy forums and national dialogues.

2. Anti-Corruption and Ethical Governance

- 10 anti-corruption seminars, 3 major campaigns, 2,000+ participants.
- Compliance Service established continuous monitoring and reporting framework.

3. Policy Influence and Legal Development

- 5 expert hearings on AI, environmental, and judicial reform topics with 250+ stakeholders.
- International conference on judicial proceedings (120 participants).
- Law students engaged in applied legal practices with national police and justice institutions.
- 4. Youth Empowerment and Human Rights
- 100+ youth and international participants in UN Human Rights Round Table.
- 3 civic remembrance events fostering intergenerational dialogue on peace and justice.
- 200+ students engaged in peace education and human rights discussions.

5. Education, Integrity, and Academic Freedom

- 1,200 faculty and researchers participated in international collaborations.
- 145 million KZT invested in open research and publication support.
- 500+ students trained in ethics and legality sessions.



Al-Farabi Kazakh National University demonstrates measurable progress toward SDG 16 – Peace, Justice, and Strong Institutions through democratic governance, anti-corruption leadership, legal education, and youth participation in national and global dialogues. The university's inclusive structures ensure representation and transparency, while its anti-corruption initiatives foster integrity and accountability. Academic freedom and evidence-based policymaking strengthen institutional trust and the rule of law.

By engaging over 3500 participants across more than 30 activities, KazNU cultivates a culture of peace, justice, and civic responsibility, positioning itself as a leading academic institution advancing effective, accountable, and inclusive institutions in Kazakhstan and beyond.



# SDG 17 - PARTNERSHIPS FOR THE GOALS

**17** PARTNERSHIPS  
FOR THE GOALS





Al-Farabi KazNU actively strengthens global, regional, and multi-stakeholder partnerships to advance sustainable development, innovation, and knowledge exchange in line with SDG 17 – Partnerships for the Goals.

At the national level, KazNU engages with key stakeholders to support policy development, scientific research, and educational initiatives aligned with sustainable development objectives. The university participates in the formulation of national and regional SDG policies, including identifying challenges, modeling policy interventions, and monitoring outcomes with adaptive management approaches. For example, KazNU collaborates with the Ministry of Ecology and Natural Resources of the Republic of Kazakhstan to prepare strategic roadmaps for sustainable development and contributes to designing strategies for environmental protection and resource management. Strengthening its collaboration with the national scientific community, KazNU also signed a Memorandum of Understanding with the National Engineering Academy of the Republic of Kazakhstan, aimed at advancing engineering education, fostering innovation, and integrating sustainable technologies into national research and development projects. Additionally, KazNU organizes and participates in multi-sectoral dialogues, conferences, and forums that bring together government agencies, NGOs, businesses, and academia. Illustrative events include the Memorandum of Cooperation signed with Astana Motors Manufacturing Kazakhstan signed at the Forum “Integration of Science, Business and Production” held on 2 April 2025 gathered 120 participants from academia, industry, and government. In 2025, KazNU further expanded its partnerships with national agencies through a agreement with the state enterprise Kazselezashchita, combining scientific and practical expertise in natural disaster prevention and risk management involving over 50 researchers and 30 students in pilot projects to protect communities from mudflows and avalanches.

This collaboration focuses on developing innovative research-based solutions to protect communities and infrastructure from mudflows, avalanches, and other natural hazards, thereby strengthening Kazakhstan’s national framework for climate resilience and sustainable urban development in line with the SDGs.



At the regional level, KazNU builds collaborations across Central Asia and neighboring states to address shared challenges in education, science, technology, and sustainable development. In 2025, the university hosted the II Central Asia - China Summit, which resulted in the signing of the Almaty Charter, with 200 participants from Kazakhstan, China, and other regional partners. Through industrial cooperation, exemplified by the memorandum with Jiangsu Xuebao Robotics Technology Co. to establish the Huibo Digital and Intellectual Workshop, benefiting 60 students and 15 faculty in engineering education and vocational training under the Belt and Road Initiative. KazNU strengthens partnerships with universities in Uzbekistan, and across the region, expanding regional cooperation in research and education. KazNU also expands its participation in international academic associations: for instance, the university took part in the Forum of the Alliance of Silk Road Universities and the Forum of Presidents of the Silk Road University Alliance and Executive Council Meeting 2024, with over 150 delegates attending, reinforcing educational, cultural, and scientific ties among Silk Road member institutions. Further deepening regional cooperation in science and innovation, KazNU opened the Kazakh-Chinese Scientific Laboratory of Energy-Efficient Nanotechnologies, hosting 25 joint research projects on sustainable energy and green technologies. The university also hosted the Forum “Governance and Sustainable Development”, becoming a key platform for international academic dialogue on regional governance and SDG implementation.



The university's leadership participated in the Digital Almaty 2025 Forum, more than 300 government, academia, and industry leaders discussed digital transformation in Central Asia. KazNU also hosted strategic meetings on high-tech fields, including discussions on the development of Artificial Intelligence and its integration into education, science, and industry, highlighting cross-border collaboration in digital technologies. The Faculty of Physics and Technology contributed to the Regional Info Day of Horizon Europe Cluster 5, engaging 40 researchers from Kazakhstan and the EU and reinforced scientific cooperation between the European Union and Central Asia. Regional environmental and scientific collaboration is further demonstrated through participation in the International Forum “Issues and Prospects of Biodiversity Conservation in Central Asia” and the II International Congress of Turkic World Geographers, bringing together 150 researchers to develop joint research initiatives, exchange scientific data, and discuss strategies for sustainable territorial development, positioning KazNU as a regional hub for science and capacity building. In May 2025, KazNU hosted the Forum “Governance and Sustainable Development”, which brought together 180 experts and universities from Kazakhstan, China, Tajikistan, and Kyrgyzstan to discuss digital transformation in public administration, renewable energy development, youth engagement in the SDGs, and regional governance innovation. The event reinforced the importance of inter-university partnerships and cross-border policy dialogue for sustainable growth in Central Asia.

In addition, the university actively participates in the International Forum “Universities, Business and Climate Change – SCO Territory” connected over 200 government representatives from Shanghai Cooperation Organization member states to address climate change, sustainable development, and green economy challenges. KazNU also served as a key platform for discussions on ESG and the Future of Regions, hosting 70 experts and representatives from academia, government, and business to explore sustainable governance, regional resilience, and innovation strategies. These initiatives consolidate KazNU's status as a regional hub for scientific collaboration, technological innovation, and capacity building, promoting cross-border research and policy integration to advance sustainable development across the Eurasian region.

On the global stage, KazNU continues to strengthen cooperation with universities, organizations, and research institutions across Europe, Asia, and beyond - promoting innovation, education, and knowledge exchange in support of SDG 17. Expanding its global academic footprint, Al-Farabi Business School joined the British Association of Business Schools (ABBS), impacting over 1500 students through business education programs with international standards of excellence and sustainability. Cooperation in healthcare and biomedical sciences was deepened through new partnerships with leading South Korean institutions - “Cooperation with South Korea in the Field of Medicine Will Be Expanded” - focusing on joint research, academic mobility, and medical innovation. New partnerships with leading South Korean institutions in healthcare and biomedical sciences engaged 50 researchers and 25

students in joint research and academic mobility projects. At the same time, KazNU took part in the annual “Campus on Campus” meeting, a platform uniting universities from around the world to promote international networking and partnership within the global education system with 120 global universities represented.

In alignment with its sustainability mission, KazNU opened 10 Innovation Labs for the Implementation of the Sustainable Development Goals, serving as international collaboration hubs for interdisciplinary research and practical SDG solutions for over 300 students, 100 researchers, and 50 industry experts. These labs foster global cooperation among researchers, students, and industry experts, supporting innovation in green technologies, digital transformation, and social development. The university hosts and participates in international conferences and forums, including the GISCA 2025 Conference, Model UN – New Silk Road, International Youth Conference “Global Asia Model United Nations 2025”, facilitating knowledge exchange and partnership development gathered more than 400 participants. KazNU participated in the International Summit on the Sustainable Development Goals, presented its institutional experience to over 150 representatives from leading universities and international organizations to discuss global strategies for achieving the UN 2030 Agenda.

During the summit, the university presented its institutional experience in integrating sustainability principles into education, research, and community engagement, emphasizing the importance of partnerships for innovation and inclusive development.

KazNU also fosters cross-border innovation through initiatives such as the Global HackAtom involved 120 participants from 10 countries at Farabi HUB. KazNU promotes international collaboration on social sustainability, including dialogue on women's rights and protection mechanisms, international knowledge exchange on green technologies and healthy lifestyles as demonstrated by the launch of a Center for Healthy Nutrition Studies connecting 5 research institutions and 3 international organizations.

Through these and other initiatives, KazNU demonstrates its leadership as a global partner university, fostering strategic collaborations that bridge science, education, and industry worldwide - thereby contributing significantly to the advancement of SDG 17 - Partnerships for the Goals.





## PROGRESS ON SDG 17 - PARTNERSHIPS FOR THE GOALS

Initiative / Policy	Target Audience	Key Outcomes
National SDG Policy Engagement & Strategic Roadmaps	Policymakers, government agencies, researchers	Collaboration with Ministry of Ecology & Natural Resources; More than 50 researchers and 30 students involved in pilot projects; development of national climate resilience strategies
Memorandum with National Engineering Academy	Faculty, students, researchers	Strengthened engineering education; integration of sustainable technologies into research projects
Forum “Integration of Science, Business and Production”	Academia, industry, government	120 participants; established multi-sectoral dialogue platforms; enhanced cooperation across sectors
Partnership with Kazselezashchita	Researchers, students, local communities	Pilot projects for mudflow and avalanche prevention; applied research impacting community safety
II Central Asia – China Summit & Almaty Charter	Regional policymakers, universities, industry	200 participants; promoted cross-border cooperation in science, education, and policy
Huibo Digital and Intellectual Workshop (Jiangsu Xuebao Robotics)	Students, faculty	Benefited 60 students and 15 faculty in engineering education; vocational training under Belt and Road Initiative
Forum of the Alliance of Silk Road Universities	Academics, policymakers	150 delegates; reinforced regional educational, scientific, and cultural ties
Kazakh-Chinese Scientific Laboratory of Energy-Efficient Nanotechnologies	Researchers, students	25 joint research projects on sustainable energy and green technologies
Digital Almaty 2025 Forum	Government, academia, industry	Over 300 participants; discussed digital transformation and cross-border tech cooperation
Regional Info Day of Horizon Europe Cluster 5	Researchers	40 researchers; strengthened EU-Central Asia scientific cooperation
International Forums on Biodiversity & Geography	Researchers, academics	150 participants; joint research initiatives; knowledge exchange in environmental science
Forum “Governance and Sustainable Development”	Experts, universities	180 participants; promoted SDG-aligned governance strategies across Central Asia
International Forum “Universities, Business, and Climate Change – SCO Territory”	Government representatives, academia	200 participants; addressed climate change, sustainable development, and green economy
Al-Farabi Business School joining ABBS	Students	Impacted 1500 students; international standard business education and sustainability awareness
South Korea – Biomedical & Healthcare Cooperation	Researchers, students	50 researchers and 25 students engaged in joint research and mobility projects
Campus on Campus Meeting	University leaders	120 universities represented; promoted global networking and partnerships
Innovation Labs for SDGs	Students, researchers, industry experts	10 labs; over 300 students, 100 researchers, 50 industry experts involved; fostered interdisciplinary SDG solutions
International Conferences and Forums (GISCA 2025, Model UN, etc.)	Students, researchers, international participants	400 participants; promoted knowledge exchange and global SDG collaboration
Global HackAtom at Farabi HUB	Students, innovators	120 participants from 10 countries; cross-border innovation and problem-solving initiatives
Center for Healthy Nutrition Studies	Researchers, international organizations	5 research institutions and 3 organizations involved; promoted social sustainability, green technologies, and healthy lifestyles

Measured impacts of KazNU's actions on SDG 17 (2024–2025):

### 1. National and Regional Partnerships

- Collaborated with Ministry of Ecology & Natural Resources, Kazselezashchita, and National Engineering Academy.
- Over 50 researchers and 30 students involved in national pilot projects on climate resilience.
- Hosted II Central Asia - China Summit with 200 participants; signed Almaty Charter fostering regional cooperation.

### 2. Education, Research, and Innovation Partnerships

- Established 10 Innovation Labs for SDGs with over 300 students, 100 researchers, 50 industry experts.
- Opened Kazakh-Chinese Scientific Laboratory of Energy-Efficient Nanotechnologies with 25 joint research projects.
- 60 students and 15 faculty benefited from Huibo Digital and Intellectual Workshop (Jiangsu Xuebao Robotics).

### 3. International Collaboration

- Joined ABBS, impacting 1500 business students with global standards.
- Partnered with South Korean institutions in healthcare and biomedical sciences: 50 researchers, 25 students engaged.
- Participated in Campus on Campus meeting with 120 universities represented.
- Hosted Global HackAtom with 120 participants from 10 countries.

### 4. Conferences and Forums for Knowledge Exchange

- Organized/hosted GISCA 2025, Model UN – New Silk Road, International Youth Conference “Global Asia MUN 2025” with more than 400 participants.
- Forum “Governance and Sustainable Development” gathered 180 experts from Kazakhstan, China, Tajikistan, Kyrgyzstan.
- Participated in SCO Climate and Green Economy Forum with 200 government representatives.

### 5. Social and Environmental Impact through Partnerships

- Center for Healthy Nutrition Studies connected research institutions and international organizations.
- Multi-sectoral dialogues and Memoranda of Cooperation promoted sustainable development solutions, climate resilience, and green technologies.

Al-Farabi KazNU demonstrates substantial progress in advancing SDG 17 by actively building partnerships at national, regional, and global levels. Between 2024–2025, the university engaged over 3000 participants across more than 30 initiatives, including strategic policy collaboration, regional summits, research laboratories, innovation hubs, and international forums.

KazNU's initiatives strengthen multi-stakeholder cooperation, foster knowledge exchange, and support innovation in sustainable development, education, science, and technology. By integrating students, researchers, policymakers, and industry experts, the university consolidates its role as a regional and global hub for partnerships, contributing measurable outcomes to climate resilience, digital transformation, green technologies, and inclusive governance.





An aerial photograph of the Farabi University campus, showcasing a blend of modern architectural structures and lush greenery. The campus features several multi-story buildings with unique, angular designs, interspersed with large, well-maintained green spaces and numerous trees. The overall scene conveys a sense of a sustainable and vibrant academic environment.

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