TASHENEV UNIVERSITY ECO-CAMPUS

The ECO-Campus of Tashenev University is an institutional initiative aimed at integrating principles of sustainable development into educational, scientific, and infrastructural activities of the University. The project relies on modern green technologies and aligns with the 17 UN Sustainable Development Goals (SDGs).

GOALS

To form a next-generation sustainable university that integrates ESG principles, green technologies, and sustainability values into all spheres of its activity - from infrastructure and educational programs to scientific research and societal engagement. The University should become a center of ecological culture and innovation, setting an example for academic community of Kazakhstan and international partners.

OBJECTIVES

1. Creation and development of a sustainable university environment, including eco-friendly campuses, dormitories, and laboratories.
2. Implementation of advanced green technologies (solar energy, rainwater harvesting, energy-efficient buildings, digital eco-solutions) to reduce the carbon footprint.
3. Systematic development of environmental education for students, faculty, and staff through academic programs, ESG schools, master classes, and student initiatives.
4. Support and scaling of scientific, research, and innovative projects in the field of ecology, including startups and international collaborations.
5. Increasing the global competitiveness of the University through participation in international rankings (QS Sustainability, THE Impact Rankings, UI GreenMetric, etc.).
6. Building sustainable partnerships with government bodies, NGOs, and international organizations, including the UN SDG Universities Network.

MAIN AREAS

Green Infrastructure and Resource Management
1. Modernization of buildings according to green construction principles.
2. Implementation of energy-saving systems and renewable energy sources.
3. Rational water use and conservation (installation of water-saving devices, rainwater harvesting, digital monitoring of water and electricity consumption).
4. Development of green zones, eco-parks, and sustainable landscape design.
5. Creation of bicycle and pedestrian infrastructure.

Education and Formation of a Sustainability Culture
1. Integration of UN SDGs and ESG components into all educational programs.
2. ESG School for students and staff.
3. Development of "Green Skills" for future professions.
4. Mass eco-campaigns, courses, and student projects on responsible consumption and environmental protection.

Science, Innovation, and Digital Transformation
1. Development of research projects on ecology and climate.
2. Incubator for green startups and eco-innovations.
3. Implementation of digital solutions and AI technologies for monitoring and optimizing water, electricity, and waste consumption (SmartCampus, EcoTracker AI).
4. Big data analysis for forecasting ecological risks and planning sustainable development.

Social Participation and Community Engagement
1. Creation of a network of eco-ambassadors among students and staff.
2. Zero-Waste events, Eco-Forums, and Green Week.
3. Development of the University's eco-brand and eco-merchandise.
4. Engagement of alumni, parents, and local communities in eco-initiatives.

Global Partnership and Reporting
1. Cooperation with government agencies, the UN, and international associations.
2. Participation in international sustainable development networks (SDSN, UI GreenMetric Network, etc.).
3. Annual reports on the results of ESG and SDG implementation in formats comparable with QS Sustainability, THE Impact Rankings, and UI GreenMetric.
4. Development of international joint programs and projects.

ACTION PLAN AND KPIs (2025–2029)

№	Activity	KPI / Metric	2025–2026	2026–2027	2027–2028	2028–2029
1. Green Infrastructure and Resource Management						
1	Waste separation	Number of buildings with the system	1	3	5	7
2	Water savings	Number of points / volumes of recycled waste	10/2 t	20/5 t	30/10 t	50/20 t
3	Rainwater harvesting system	% Reduction in water consumption	3%	7%	12%	20%
4	Installation of solar panels	Number of buildings / kW energy	1 / 500 kW	3 / 2000 kW	5 / 5000 kW	7 / 8000 kW
5	Eco-monitoring of buildings	Number of audits / violations identified	2 / audits	5 / audits	10 / audits	15 / audits
6	Collection of electronic waste	Number of collection points / volume of collected waste	1 point / 50 kg	3 points / 100 kg	5 points / 300 kg	8 points /400 kg
7	"1 Student – 1 Tree" program	Number of trees	100	300	500	700
2. Education and formation of a culture of sustainable development						
8	Eco-lectures and workshops	Number of lectures / participants	2 / 100	4 / 200	6 / 300	8 / 500
9	ESG School	Number of participants	30	60	100	150
10	Annual student testing on SDG understanding	Testing conducted / % student coverage	Development & pilot / 20%	Full implementation / 50%	Regular testing / 70%	Regular testing / 85%
11	Courses on Green Skills	% of educational programs with SDG component	3%	7%	10%	15%

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12	Certification of faculty staff in sustainable development	Number of faculty	10	30	50	80
3. Science, Innovation, and Digital Transformation						
13	EcoTracker AI (digital monitoring)	Number of users	Design	100	500	1000
14	AI solutions for campus	Number of implemented solutions	Pilot (1)	3	5	7
15	Green IT solutions	Number of projects / % cloud-based	1 / 10%	3 / 25%	5 / 50%	8 / 70%
16	Incubator for green startups	Number of ideas / funded projects	2 / 0	5 / 1	10 / 3	15 / 5
17	Research in decarbonization	Number of publications / projects	2	5	8	12
4. Social Participation and Community Engagement						
18	Zero-Waste events	Number of events	2	5	10	15
19	Eco-ambassadors	Number of participants	10	30	50	70
20	Green Week / Eco-Forum	Number of events / participants	1 / 100	3 / 300	5 / 500	7 / 800
21	"Green Dormitory" program	Number of dormitories meeting eco-standards	2	4	5	7
22	University eco-brand	Logo and merchandise availability	Logo + 100 items	300 items	500 items	800 items
5. Global Partnership and Reporting						
23	International SDG partnerships	Number of agreements and initiatives	1	3	5	8
24	Cooperation with eco-department and universities of Kazakhstan	Number of MoUs / events	2	4	6	8
25	International environmental events	Number of events / participants	2 / 200	3 / 300	5 / 500	7 / 700
26	Annual Sustainability Report	Report publication	Template	1st report	2nd report	3rd report
27	Entry into international sustainability networks	Number of networks	Preparation	1	2	3

GROWTH PROSPECTS

The ECO-Campus of Tashenev University will serve as the foundation for creating a sustainable university environment where water conservation, energy efficiency, and responsible waste management will become part of daily practice. In the long term, the initiative will reduce resource costs, improve the ecological state of the campus, enhance student and staff engagement, and strengthen the University's role as a socially responsible educational institution of Kazakhstan.

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