ROAD MAP

NPLC "Sarsen Amanzholov East Kazakhstan University" on realization of the UN Sustainable Development Goals for 2024-2029.

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CONTENTS

INTRODUCTION

In a world of globalizing education, it is the responsibility of universities to train a new generation of young professionals, producers of innovative ideas and intellectual thought. In this context, modern universities play an ever-increasing role in promoting sustainable development goals. In this regard, the issues of sustainable development and the need to address a whole range of economic, social, environmental and applied problems require non-standard and extraordinary approaches. And it is the new generation universities that are able to address the challenges of modernity and the Sustainable Development Goals (hereinafter - SDGs).

UN Secretary-General António Guterres noted in his speech that in the coming years the international community must address a number of sustainable development issues:

1. Conclusion of a comprehensive climate agreement between countries.
2. Accelerate the implementation of the Millennium Development Goals.
3. Establish a sustainable development agenda for the 17 SDGs.

Addressing the challenges of the Millennium and the problems of sustainable development requires integration of theory and practice, mobilization of researchers and practitioners and promotion of creative potential of student youth. It is not only educational programs, effective involvement of the university in life and problem solving at the level of cities, regions and countries, but also transformation of the university into centers of intellectual life - what we call Smart Universities. And what is no less important - practical solution of sustainable development problems through concrete examples, student and university projects, through Start-Up business and commercial and non-commercial tools for realization of innovative projects.

Recent events in the world (pandemic, geopolitical crisis) make noticeable adjustments in the realization of sustainable development goals in the sphere of higher university education. Since the 80s of the last century, universities around the world have been confidently following the goals of sustainable development formulated by international organizations and have accumulated a lot of experience.

Since 2018, Kazakhstan's universities have been actively increasing their representation in international rankings (THE University Impact Rankings) under the seven Sustainable Development Goals: “quality education”, “decent work and economic growth”, “industrialization, innovation and infrastructure”, “peace, justice and effective institutions”, “elimination of hunger”, “fight against climate change”, “good health and well-being”. “Cancel” the sustainable development agenda is impossible, because the realization of this agenda is necessary for the future of the country and the world - a balanced

coexistence of people with different social interests, an equilibrium state of society and nature at country, regional or global scales

The issue of universities' contribution to sustainable development is widely discussed by foreign experts. A number of scientific publications under the auspices of UNESCO, devoted to the contribution of universities to the achievement of sustainable development goals, analyze the results, problems and difficulties, as well as the specifics of program-targets and work "on the ground", in the local space of the region and individual university. Reports on the achievements of universities are published, where the role of higher education institutions in promoting sustainable development is discussed in detail.

Today, there are various approaches to the role and activities of universities in developing and deepening the Sustainable Development Goals (SDGs). However, the primary approach adopted by universities worldwide is the triad concept of sustainable development. This concept focuses on economic efficiency, social equilibrium, and addressing environmental issues, confirming the idea of the equal importance of subjective and objective factors in the interaction between society and nature. This concept presupposes that humans can align with the laws of nature while achieving economic and social development goals.

Since its adoption, the concept of sustainable development has been seen as an organizing principle of global development, focused on maintaining the well-being of both people and the planet in order to address environmental, economic and social challenges. However, in recent years there has been a shift in conceptualizing sustainable development not only as a strategy for the well-being of humanity and the planet, but also for the preservation of peace and partnerships. This is reflected in the specification of the 2030 Sustainable Development Goals, implemented by the UN in 2015, based on an assessment of the results achieved during the reporting period since the beginning of the millennium. A special role in the realization of the goals of education for sustainable development is assigned to higher education, which is seen as the main driving force of this development, based on the "Principles for Responsible Management Education" (PRME). Universities are oriented in their activities to prepare responsible sustainable development leaders for the business sector through interaction with regional and global economic structures, as well as research work. Higher education integrates sustainable development aspects into educational programs, defines indicators and develops standards for sustainable development, develops corporate culture and implements structural changes on the way to sustainability.

Today, along with the discourse of sustainability and ecological development, university programs actively use ecosystem rhetoric, reflecting the global trend towards ecosystems in university education. At the center of ecosystem development are positioned networks of "interconnected and diverse actors engaged in a lifelong learning/education/development process". Educational ecosystems create niches and opportunities for each participant of the educational process to choose an individual trajectory in the context of formal and non-formal education, providing an institutional framework for educational and scientific activities. The ecosystem approach can be seen as a conceptual successor to the sustainable development approach, but with some important changes. Like the concept of sustainable development, the ecosystem approach also encompasses three main spheres of action - ecological, economic and social. Consequently, the specificity of transformation of higher education for sustainable development is that the image of a modern university is defined by openness to external challenges and active activity in the region.

S. Amanzholov EKU as a regional university is committed to the SDGs and the strategy of realization of the mission of socio-economic and cultural development of society (the third mission of the university), which modern universities are called to fulfill. And consequently, the activities of S.Amanzholov EKU are carried out within the framework of national and international initiatives and programs, which are aimed at preserving stability in the country, the world and developing its contribution to the solution of global problems, such as sustainable development, both in the region and

in Kazakhstan as a whole. In this regard, UN initiatives are aimed at strengthening stability in the region and working together with all stakeholders on sustainable development. For example, UN strategic initiatives such as the proposals made at the UN RIO+20 conference, the UNESCO Decade of Education for Sustainable Development and the UN Academic Impact program, which play a huge role in addressing global challenges.

It is in solving these problems: in their scientific support, dissemination, accumulation and dissemination of ideas of sustainable development through university interaction networks, professional communities, mass media and other resources that the main role of the university lies. We need to work ahead of the curve, to carry out scientific and practical development of educational programs and activities aimed at sustainable development.

S. Amanzholov East Kazakhstan University, within the framework of SDG realization offers for consideration and support the draft Road Map of S. Amanzholov East Kazakhstan University on realization of UN SDG 2024-2029.

This project was developed based on the analysis of leading practices recognized internationally: the Talloires Declaration of Sustainable Development, signed by over 500 universities and colleges, the Rio+20 Declaration on Sustainable Development, UNESCO's Education for Sustainable Development Program; as well as the analysis of practices from international universities: the University of Indonesia, which created the UI Green Metric World University Ranking system to disseminate environmental knowledge in higher education institutions worldwide, the University of Santiago, Spain, which implements a sustainable development plan for its university campus, the University of Oldenburg, Germany, which developed curricula (syllabi) with sections on sustainable development, and the University of Oxford, which implemented an effective energy-saving program, resulting in a 52% reduction in electricity consumption, along with several other foreign and national universities.

Roadmap for the realization of sustainable development goals for 2024-2029 is developed on the basis of the Policy of NPLC “Sarsen Amanzholov East Kazakhstan University” in the field of sustainable development as a conceptual basis of the system of views, concepts, ideas, which takes into account the interrelation of scientific-educational, managerial, environmental and socio-cultural aspects of the university.

The concept of sustainable development of the university can be presented as an interdependent set of the following basic principles:

1. Inclusion of sustainable development issues in the university's curricula and research topics. The university should teach courses of disciplines and offer entire educational training programs devoted to the issues of sustainable development of the enterprise, industry, region, country. Scientific research in the field of sustainable development is not only necessary to support the disciplines taught, it creates new knowledge, which is then transformed into specific programs, resources and activities (events).

2. Building the current activities of the university on the principles of sustainable management of infrastructure and environment, which implies the use of energy-saving equipment, technologies, alternative sources and types of energy. The principles of sustainable development should underlie all functions of the university: administrative and economic and financial activities, construction, staff selection, student recruitment, development of cooperation and partnership programs with other organizations for the purposes of sustainable development, etc. The principles of sustainable development should be based on the principles of sustainable development. The concept of sustainable

university should provide for joint programs with commercial and public organizations, state and city structures, international organizations.

3. Creating conditions for students and university staff to conduct research, participate in projects, work in laboratories in order to acquire knowledge, skills and abilities to implement projects on green energy and resource conservation within the framework of technoparks, business incubators and creation of start-up companies, etc. Concentration of efforts and intellectual potential of teachers, researchers, students on creation and implementation of environmentally friendly, resource-saving and energy-efficient technologies, priority development of innovative projects in the field of environmental protection and sustainable development.

Raising awareness, building a culture of social responsibility of society in the field of sustainable development through environmental education and upbringing, contributing to the assimilation of a number of environmental and ethical values, norms of behavior, which are required to ensure sustainable development (Picture).

1.)

Picture 1 - Principles of sustainable development of the university

As a result of implementing the activities of this Model Plan and assessing the state of all areas of the university according to the developed criteria and indicators in the field of sustainable development, it is possible to achieve a systemic transition of the university to an energy-intensive economy by implementing measures, as well as adopting its own plans for the creation of “sustainable green university campuses”.

The implementation of this model of sustainable development is based on a clear awareness of the university's strengths, its achievements and the need to address existing problems and challenges. In order to achieve sustainable development it is necessary to involve all structural units of the university to solve short-term and long-term tasks. The roadmap of sustainable development includes 3 blocks: 1. Education and scientific research, 2.Infrastructure and environment management. 3. Green energy.

Each of the blocks has key criteria and indicators that allow to trace the dynamics, as well as recommended activities to achieve them.

Goal: To unite joint efforts and mobilize the intellectual potential of the university to implement the SDGs and sustainable development plans at the level of the university, city and country.

Actions: Concentrate and utilize the university's accumulated research and management capacity to implement sustainability activities as part of university, city, and national initiatives. University contributions:

1.Development of criteria, indicators and measures applicable to the realization of SDGs;

2.Creation of an educational model of the university's innovation potential based on the involvement of all university structures, as well as students, teachers and researchers for the realization of the SDGs;

3.Support of international programs of sustainable development: the Program and Declaration "Education for Sustainable Development", developed at the UN global environmental forum RIO+20; principles of the United Nations Academic Impact, UNESCO Education for Sustainable Development Program, etc.; 3;

4.Formation of the culture of social responsibility of the Company, promotion of environmental and ethical values and norms of behavior through environmental education and upbringing;

5.Implementation of programs and activities to assess and solve global and regional problems in the field of pollution, depletion of natural resources and environmental protection.

BLOCK 1.QUALITY EDUCATION, RESEARCH, COMMERCIALIZATION OF SCIENTIFIC PRODUCTS

Main objective:

To contribute to the realization of sustainable development goals by conducting scientific research in the field of environmental protection, as well as environmental education and upbringing, contributing to the assimilation of a number of environmental and ethical norms, values, and professional skills.

Modernization and optimization of educational and scientific research process on environmental protection and sustainable development at the university.

Objectives of the section:

1. Increase the content of the component of environmental protection and sustainable development in the educational process of the university.

2. Introduction of new and development of existing training programs and syllabuses, methods and forms of education in the field of environmental protection and sustainable development.

3. Expanding the coverage of faculties and departments of the university with education in the field of environmental protection and sustainable development.

4. Improving the quality of human resources training and meeting the needs of society in professional staff in the field of environmental protection and sustainable development;

5. Raising awareness of all groups of population through environmental education and upbringing that promote the assimilation of a number of environmental and ethical norms, values, professional skills that are required to ensure sustainable development.

6. Increase in the number of projects and research works on the issues of

environmental protection and sustainable development conducted at the interdepartmental, city, state and international levels, city, state and international levels.

7. Development of infrastructure for research work on environmental protection and sustainable development.

8. Popularization of knowledge, activities, researches and projects on environmental protection and sustainable development among all groups of population through mass media.

Expected results: Formation of a “green” worldview and “green” values, assistance in the formation of a humane, emotional and moral, careful attitude to the natural environment, development of mechanisms and prerequisites for the “biosphere-compatibility” of man and nature.

UNIT 2. INFRASTRUCTURE AND ENVIRONMENTAL MANAGEMENT

Main Objective:

To optimize and improve the coordination of strategic planning and design of the university campus and all its components by incorporating the latest science and technology in improving the energy efficiency of the campus, improving and further greening the campus and integrating it into the environment, eco-system of the city, region and country.

The objectives of the section are:

1. Integrate knowledge and international experience on sustainable development, Green Metrics principles and UNAI principles of sustainable development into the decision-making practices for planning, design and development of the university campus and university infrastructure.

2. Study, adaptation and implementation of advanced technologies and projects with a focus on optimization and use of the campus and its infrastructure and university buildings; improvement of energy efficiency, including academic buildings, scientific laboratories and dormitories of buildings; optimization of recycling and waste management.

3. Integration of the campus and the university itself into the environment at the level of the city and country as a smart-campus or smart university through cooperation with local executive bodies in the role of experts and consultants when making certain management decisions on the development of urban infrastructure and the formation of national strategies.

4. Establishment of a working group at the university consisting of heads of individual units to systematize and coordinate the university's activities in the field of sustainable development; planning and decision-making, creation of appropriate infrastructure and regulation (including legal) of activities at all levels.

5. Cooperation with foreign and national universities, city, state, public and international organizations in the study and dissemination of accumulated experience, mutual support and popularization of ideas and new technologies on sustainable development through the organization of joint events, actions, joint projects and programs on sustainable development.

Expected results: creating conditions for sustainable campus development: improving energy efficiency, reducing environmental pollution and integrating the campus into the surrounding city, region and country, increasing international integration and popularizing knowledge and lessons learned on sustainable development.

BLOCK 3. "GREEN ENERGY"

Main Goal: Develop a systematic, comprehensive approach for the university to transition to an energy-efficient economy by implementing measures for energy efficiency, water and electricity savings, waste management, and the adoption of plans to create "sustainable green university campuses."

Objectives:

1. Implement measures to save and improve the efficiency of electricity and thermal energy consumption.
2. Develop and implement programs for electricity distribution and monitoring in university buildings and facilities.
3. Implement energy-saving programs and encourage reduced energy usage.
4. Develop programs and measures to save water consumption and explore alternative water sources such as groundwater, wastewater, springs, etc.
5. Develop measures and encourage the use of water management systems.
6. Implement programs to reduce greenhouse gas emissions.
7. Implement programs and measures to encourage staff and students to recycle waste.
8. Initiate agreements with city organizations for waste collection, disposal, and recycling.
9. Recycle inorganic and organic waste, create conditions for separate waste collection, etc.
10. Develop programs and measures to reduce harm caused by non-environmentally friendly transport. Limit the number of vehicles used on campus.
11. Encourage and promote the use of environmentally friendly transport on campus.

Expected Results: The transition of the university to an energy-efficient economy by implementing measures for energy efficiency, water and electricity savings, waste management, etc., and the implementation of the plan to create a "sustainable green university campus" - the "Green Campus."

CONCLUSION

The key role of the university in addressing the challenges of the millennium and sustainable development issues lies in integrating theory and practice, mobilizing researchers and practitioners, and promoting the creative potential of students to address the Sustainable Development Goals (SDGs). In this roadmap, based on the analysis of leading international practices and experiences in organizing "Green Campuses," the role and significance of the UI Green Metric World University Ranking program, developed by the University of Indonesia, are taken into account for assessing the implementation of sustainable development programs and the state of university campuses. The three main blocks of the roadmap form the basis for promoting sustainable development ideas within the university. The roadmap aims to develop joint educational programs, projects, and activities to evaluate and address global and regional issues related to pollution, resource depletion, and environmental protection using advanced international experience in indexing and assessing the current state and programs in sustainable development.

As a result of the implementation of the roadmap's measures and the assessment of all areas of the university's activities according to the developed criteria and indicators in the field of sustainable development, a systematic transition of the university to an energy-efficient economy can be achieved. This is done through implementing measures to achieve good performance according to the criteria, as well as adopting its own plans to create a "Green Campus." The adoption and implementation of the roadmap within the university will contribute significantly to solving global problems and will become a substantial practical contribution to addressing sustainable development issues. The prepared roadmap aligns with the main priorities of the programs and goals of the UN, the UN World Summit Rio+20, as well as the Millennium Development Goals (achieving sustainable development of society in educational, scientific, social, and cultural aspects).

The roadmap, presented in 3 blocks and appendices with target criteria and indicators for achieving the Sustainable Development Goals (SDGs) over five years, aligns with the Development Program of Sarsen Amanzholov East Kazakhstan University (EKU) until 2029. This Development Program serves as the main strategic document for achieving the SDGs and, therefore, the achievement of indicators is supported by a financial document—the Development Plan of Sarsen Amanzholov East Kazakhstan University until 2029. For discussing the implementation of the university's sustainable development roadmap, developing joint actions, exchanging experiences in sustainable development, and monitoring the achievement of indicators and targets. A page titled "Green bridge through generations" is being developed on the official website - https://vku.edu.kz/.

Appendix 1. **BLOCK 1. Quality education, scientific research, commercialization of scientific activity products: CRITERIA AND INDICATORS**

№ p/p	Target Indicators	Unit of Measurement	2023 year	2024 year	2025 year	2026 year	2027 year	2028 year	2029 year
1.	1Proportion of Academic Staff (PPS) who have undergone advanced training and international internships 1	%	62,0	65,0	66,0	67,0	69,0	71,0	73,0
2.	1Proportion of employers and business representatives engaged in the educational process out of the total number of PPS 2	%	22,0	31,7	32	32,3	32,7	33,0	33,5
3.	1Educational services in higher and postgraduate education 3	Persons	7 858	7 900	8 000	8 100	8 200	8 300	8 400
4.	1Educational services in technical and vocational education 4	Persons	926	1 000	1 100	1 200	1 300	1 400	1 500
5.	1Proportion of graduates employed within the first year after graduation 5	%	98	98,0	98,1	98,2	98,3	98,4	98,5
6.	1Proportion of students admitted to the university who have "Altyn Belgi" awards, winners of international Olympiads and scientific project competitions in the past three years, winners of presidential, national Olympiads and scientific project competitions of the current academic year (awarded diplomas of first, second, and third degrees) out of their total number	%	3,5	4	4,5	4,8	5	5,2	5,5

7.	1Proportion of innovative educational programs developed at the request of industry associations and enterprises 7	%	3,5	4,5	4,7	4,9	5,0	5,3	5,5
8.	1Number of students in the Silver University programs 8	Persons	25	30	35	40	50	60	70
9.	1Number of students in non-formal education programs (excluding Silver University) 9	Persons	193	200	250	300	350	400	450
10.	1Number of students in non-formal education programs aimed at improving digital literacy for individuals aged 6-74	Persons	70	100	120	150	180	200	250
11.	1Number of programs included in QS-BY SUBJECT, TOP-100 1 1	Unit	-	1	2	3	4	5	6
12.	2Proportion of academic staff engaged in research work 1	%	30	33	36	40	45	50	55
13.	2Number of young academic staff engaged in research work 2	Persons	48	50	53	58	60	65	70
14.	2Number of commercialized research projects 3	Unit	2	3	4	5	6	7	8

15.	2Volume of private co-financing of commercialized R&D projects and applied research (local executive bodies, business representatives)	Thous. Tg.	1957	2 000	2 500	3 000	3 500	4 000	4 500

16.	2Proportion of income received from scientific activities, innovative developments, and commercialized projects 5	%	10	10,2	10,3	10,4	10,5	10,6	10,7
17.	2Number of patents obtained within the framework of research activities, implemented at the expense of the state budget 6	Unit	8	9	12	15	16	20	22
18.	2Number of joint dissertation councils with research institutes 7	Unit	1	2	3	3	4	4	5
19.	2Number of citations of articles in high-ranking journals per academic staff member and research staff (publication citation index) 8	Persons	1	1	1,5	2	2,5	3	4
20.	2Number of scientists who have undergone internships at leading scientific centers worldwide 9	Persons	10	12	15	20	25	30	35
21.	2Number of articles and reviews by university staff in high-ranking journals (Q1, Q2 Journal Citation Reports JCR) 0	Unit	5	7	9	12	13	15	20
22.	2Number of active R&D centers, innovative scientific laboratories in collaboration with enterprises 1	Unit	-	2	4	5	6	8	10

23.	2Number of agreements (memorandums) with leading world scientific centers to enhance the integration of domestic science into the international scientific community 2	Unit	100	105	110	120	130	140	150
24.	2Proportion of international scientific projects implemented out of the total number of scientific projects 3	%	2,9	6	7,3	7,4	7,5	8,0	8,5

25.	3Proportion of startup projects implemented by university employees and students out of the total number of scientific projects 4	%	5,8	6	6,2	6,4	6,6	6,8	7
26.	3Proportion of international students in the university out of the total number of students 2	%	0,8	1,2	1,5	2,0	2,5	3,0	3,5
27.	3Proportion of foreign experts involved in teaching activities out of the total number of academic staff 3	%	1,7	1,9	2,0	2,2	2,4	2,6	2,8
28.	3Proportion of students who went abroad for academic mobility programs for a period of at least a trimester, semester, or academic year out of the total number of students 4	%	0,03	0,05	0,10	0,13	0,16	0,20	0,22
29.	3Proportion of incoming students from abroad for academic mobility programs for a period of at least a trimester, semester, or academic year out of the total number of students 6	%	0,1	0,3	0,5	0,7	0,9	0,10	1,2
30.	3Number of international educational programs at the university in English 7	Unit	0	1	3	4	5	7	10

31.	3Proportion of international scientific projects implemented out of the total number of scientific projects 8	%	1	2	2,5	3	3,5	4	5
32.	3Number of educational programs within dual-degree education with partner universities from the QS Top 700 ranking 9	Unit	1	1	3	5	7	9	11
33.	3Establishment of centers, branches, and representations of foreign partner universities 10	Unit	1	1	2	2	3	4	5
34.	3University position in the QS-WUR ranking 11	place	- 14	1500+	1500+	1400	1300	1200	1000
35.	4Level of conditions created for inclusive education at the university 1	%	91	91,5	92	94	95	97	98
36.	4Proportion of students involved in organized social activities 2	%	70	75	80	86	88	90	92
37.	4Number of newly introduced bed places in student dormitories 3	Unit	2050	2050	2050	2050	2050	2050	2050
38.	4Degree of student and academic staff satisfaction with the quality of educational services and the ecosystem 4	%	75,0	75,5	76,0	76,5	77,0	77,5	78,0
39.	5Proportion of students using global digital libraries in the learning process 1	%	12,8	13,0	14,0	15,0	16,0	18,0	20,0

40.	5Proportion of educational programs using global digital libraries 2	%	35	41	46	57	68	74	80
41.	5Number of digitalized educational and research services 3	%	50	60	70	80	85	90	100
42.	5Number of newly developed digital platforms 4	Unit	1	2	3	4	5	6	7

BLOCK 1. QUALITY EDUCATION, SCIENTIFIC RESEARCH, COMMERCIALIZATION OF SCIENTIFIC ACTIVITY PRODUCTS

№	MEASURES TO ACHIEVE THE STATED CRITERIA
1.	Analysis of the demand for specialists in the field of environmental protection and sustainable development.
2.	Activation of the work of the Resource Center for Retraining and Advanced Training of professional personnel (external specialists, staff courses, teaching staff, etc.) in the field of environmental protection and sustainable development.
3.	Study and refine existing curricula (syllabuses) on environmental protection and sustainable development in order to identify shortcomings.
4.	Inclusion of environmental protection and sustainable development sections in newly developed curricula (syllabuses).
5.	Development of inter-faculty programs on environmental protection and sustainable development.
6.	Analysis of student theses at all higher schools, on the issue of including sections on environmental protection and sustainable development.
7.	Analysis and preparation of a plan for master's theses and PhD theses at all higher schools, on the issue of including sections on environmental protection and sustainable development.
8.	Analyzing and compiling a list of potential graduate employment/internship partners from companies, organizations/departments working on sustainable development/environmental protection.
9.	Organizational, financial, and informational support for student initiatives to establish student organizations, protect the environment, and promote sustainable development.
10.	Analysis and compilation of a list of promising topics for scientific research in the field of environmental protection and sustainable development.
11.	Creation of laboratories for environmental protection and sustainable development, with subsequent accreditation. Equipping laboratories with appropriate equipment for the analysis and monitoring of environmental objects. Collaboration of laboratories with city structures for environmental protection and sustainable development.
12.	Development of a program for the development of research in the field of environmental protection and sustainable development.
13.	Analysis and compilation of a list of potential international partners for joint scientific projects in the field of environmental protection and sustainable development.
14.	Development of an Action Plan (articles, books, scientific events, etc.) dedicated to environmental protection and sustainable development.

Appendix 2.

BLOCK 2. INFRASTRUCTURE AND ENVIRONMENT MANAGEMENT

№	Criteria and Indicators for Planning the University Annual Work Plan
1.	Total campus area (ha/sq. m/sq. km)
2.	Number of academic buildings on campus (number)
3.	Total building area (sq. m)
4.	Ratio of total building area to total campus area (%)
5.	Percentage of campus area covered with vegetation (%)
6.	Number of students (number)
7.	Number of academic and administrative staff (number)
8.	Proportion of the university budget allocated to environmental protection and sustainable development (%)
9.	Number of construction/replanning/energy-efficient design projects on university territory based on environmental protection criteria (% of total construction projects)
10.	Number of completed construction/replanning/energy-efficient design projects on university territory based on environmental protection criteria (% of total projects)
11.	Number of programs for conservation and enhancement of (bio)diversity: landscaping and selection of suitable plant species, planning new areas, etc. (number)
12.	Total number of parking spaces for vehicles (number)
13.	Number of parking spaces for vehicles arranged according to environmental protection criteria (% of total parking spaces)
14.	Number of parking spaces for bicycles, rollerblading/skating storage, etc. (number/% ratio to the number of students)
15.	Number of events promoting environmentally friendly transport: cycling events, rollerblading, eco-friendly public transport, etc. (number)
16.	Number of programs/events/campaigns dedicated to environmental and sustainable development issues, developed in collaboration with city, state, and public organizations (number)
17.	Number of programs/events/campaigns dedicated to environmental and sustainable development issues, developed in collaboration with international organizations (number)
18.	Number of academic staff (PPS) of the university serving as experts, consultants, collaborating with city and state organizations, and participating in the development of urban infrastructure, planning, and strategies for environmental protection and sustainable development (number)
19.	Number of consultancy services provided to city organizations on environmental protection and sustainable development (number)

20.	Number of consultancy services provided to state organizations on environmental protection and sustainable development (number)
21.	Number of consultancy services provided on environmental protection and sustainable development to UNAI partners (number)

BLOCK 2. INFRASTRUCTURE AND ENVIRONMENT MANAGEMENT

№	**ACTIONS TO ACHIEVE THE STATED CRITERIA**
1.	Include an expenditure item in the university's budget plan for environmental protection and sustainable development.
2.	Implement ecological and bioclimatic criteria in construction design when preparing projects for construction/replanning/energy-efficient design of the university territory.
3.	Develop a program to increase campus biodiversity: selection of suitable plant species, new areas, etc.
4.	Increase parking spaces for vehicles arranged according to environmental protection criteria, and increase parking spaces for bicycles, rollerblading/skating storage, etc.
5.	Construct bike paths, rollerblading areas, etc.
6.	Increase pedestrian zones and improve the condition of existing ones, conduct planning and restructuring of parking lots.
7.	Systematically conduct events to promote eco-friendly transportation: cycling events, rollerblading, eco-friendly public transport; dedicated to environmental and sustainable development issues in collaboration with city authorities.
8.	Develop environmental protection and sustainable development projects with the participation of the university, city, and government organizations, and international partners.
9.	Develop joint international projects in the field of environmental and sustainable development.
10.	Create a consultation center on environmental protection and sustainable development issues.
11.	Establish a Sustainable Development Council consisting of university department heads for managing, planning, and monitoring the implementation of the Model Sustainable Development Plan.

Appendix 3.

BLOCK 3. GREEN ENERGY

№	Criteria and Indicators for Planning the University Annual Work Plan	
1.	Total amount of electricity consumed (kW)	
2.	Total amount of heat energy consumed (sq. m)	
3.	Percentage of energy-efficient devices in the total volume of electrical appliances (%)	
4.	Percentage of electricity from the total volume of consumed energy obtained from renewable sources (solar, wind, etc.) (%)	
5.	Percentage of heat energy from the total volume of consumed energy obtained from renewable sources (%)	
6.	Presence of a "Smart Grid" power distribution system (yes/no)	
7.	Number of electricity meters in university buildings and structures (% of total number of buildings)	
8.	Energy-saving programs (actions taken to encourage people to reduce energy use) (yes/no)	
9.	Total amount of all water consumed and all sources (cubic meters)	
10.	Total amount of water consumed through the water supply: from public utilities (cubic meters)	
11.	Amount of water consumed from other sources: including, for example, groundwater, wastewater, springs, rainwater (cubic meters)	
12.	Number of water meters in university buildings and structures (% of total number of buildings)	
13.	Number of installed water management systems	
14.	Number of events encouraging staff and students to recycle waste (quantity)	
15.	Amount of disposed toxic waste (kg)	
16.	Amount of sorted waste for recycling (kg)	
17.	Amount of office paper used, normalized to the number of academic and support staff (kg)	
18.	Reduction of greenhouse gas emissions (%)	
19.	Number of agreements with city organizations for the collection, disposal, recycling of waste (quantity)	
20.	Recycling of inorganic waste (trash, discarded paper, plastic bottles, metal, etc.) (kg)	
21.	Recycling of organic waste (trash, vegetable and plant residues) (kg)	
22.	Sewerage (main methods of treatment and disposal of sewage)	
23.	Designated waste collection area (sq. m)	
Transport		

24.	Number of vehicles owned by the university (quantity)	
25.	Number of vehicles entering the university territory daily (quantity)	
26.	Number of bicycles on campus on average per day (quantity)	
27.	Proportion of eco-friendly transport on campus relative to the total number of vehicles (%)	
28.	Limit on the number of vehicles used on campus (quantity)	

BLOCK 3. GREEN ENERGY

№	ACTIONS TO ACHIEVE THE STATED CRITERIA
	Energy Saving
1.	Purchase of energy-saving devices.
2.	Installation of renewable energy sources (solar panels on building roofs).
3.	Installation of cogeneration engines.
4.	Installation of a "Smart Grid" power distribution system.
5.	Creation of an energy-saving program.
	Water Conservation
6.	Creation of a water conservation program.
7.	Installation of water meters.
8.	Installation of water-saving nozzles.
9.	Replacement of plumbing fixtures.
10.	Development of a system for using rainwater or treated water for reuse for technical needs.
	Waste Management
11.	Creation of a non-toxic waste recycling program.
12.	Creation of a toxic waste recycling program.
13.	Creation of a separate waste collection and recycling program

14.	Reuse and composting of vegetable waste from canteens, gardening, etc.
15.	Conclude agreements with city organizations for the collection, disposal, and recycling of waste.
16.	Creation of a "Green Campus" to coordinate student activities regarding environmental awareness and improving the overall quality of life.

17.	Develop a greenhouse gas emission reduction policy.
18.	Allocate space for waste collection.
19.	Purchase equipment for measuring emissions into the atmosphere.
Transport	
20.	Reduce the number of cars entering the campus.
21.	Develop cycling on campus by providing dedicated paths, increasing parking spaces, and making bicycles more accessible.
22.	Purchase vehicles that use gas as fuel.