

**MINISTRY OF EDUCATION AND SCIENCE
OF THE REPUBLIC OF KAZAKHSTAN**



**Sustainable development strategy
NJSC «Kyzylorda Korkyt ata University»
until 2030**

Kyzylorda, 2021

INTRODUCTION

Sustainable development is defined as development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs.

In 2015, heads of state and public figures at the 70th session of the UN General Assembly approved the 2030 Agenda for Sustainable Development and new sustainable development goals aimed at protecting and increasing the well-being of the planet. Responding to global challenges, UNESCO calls for adherence to uniform rules that improve human life. Kyzylorda Korkyt ata University supports these ideas and builds its scientific, educational and economic activities in accordance with the principles outlined in the 17 goals of sustainable development.





Mission of Kyzylorda Korkyt ata University in the field of sustainable development

Concentration of efforts and use of the accumulated scientific and managerial potential of the university for the implementation of measures for sustainable development.

Sustainable Development Vision

Kyzylorda Korkyt ata University is a higher educational institution recognized in the Republic of Kazakhstan and abroad, an integral part of which is sustainable development, through the integration of education and science, generation and transfer of new knowledge and technologies.

Each student and university employee will understand and accept the principles of sustainable development and become a catalyst for positive, sustainable change for the next generation.

Strategic directions

1. Education and research for sustainable development;
2. Infrastructure and environmental management;
3. University of Healthy Lifestyle;
4. "Green energy".

Tactical approach



The strategy is developed under the 17 United Nations Sustainable Development Goals (SDGs). Nine of the 17 SDGs were selected as priority areas in which the university can have the greatest impact in the first few years. For each strategic direction, a goal, objectives, target indicators and activities aimed at implementing the indicators have been determined. It is important to note that, despite the fact that the Sustainable Development Strategy was developed only in 2021, the university has already done significant work to achieve the SDGs.

In connection with the new global challenges and trends, the further development of the university, 9 SDGs will be developed, and new SDGs can be additionally included, changes in the goals and objectives of the strategic directions can be made.

Sustainable investment

To implement the Sustainable Development Strategy, the necessary financial resources will be required, which will be reflected in the University Development Plan. The implementation of some indicators will require significant financial costs, and this factor will determine the speed of their changes.



EDUCATION AND RESEARCH FOR SUSTAINABLE DEVELOPMENT

The main goal: the formation and development of environmental education and upbringing, scientific research in the field of environmental protection, the development of «green» technologies is aimed at the formation of skills and abilities, value orientations of behavior and activities in the field of environmental responsibility, environmental protection, sustainable nature management, the formation of an environmentally friendly lifestyle.

Tasks:

- modernization of the content of the university EP with a component on sustainable development and environmental protection;
- development and implementation of innovative educational content in the field of environmental protection and sustainable development using interactive, environmentally friendly methods and forms of education;



- development of collaborations in education and research activities in the field of environmental protection and sustainable development;
- ensuring a high-quality level of training of highly qualified personnel based on the integration of education and science, generation and transfer of new knowledge and technologies in the field of environmental protection and sustainable development;
- achievement of a high level of public awareness through environmental education and upbringing, contributing to the assimilation of a number of environmental and ethical norms, values, professional skills that are required to ensure sustainable development;
- an increase in the number of educational and research projects on ecology and environmental protection, sustainable development, carried out at the university, republican and international levels;



- development of infrastructure for carrying out research work on ecology and environmental protection, sustainable development;
- popularization and propaganda of knowledge, events, research and projects on ecology and protection .

Expected results:

- interrelated scientific, moral, legal, aesthetic and practical activities is aimed at studying and improving the relationship between man and the environment;
- formation of a responsible attitude to the environment, which will allow in the future to prevent many global environmental risks facing humanity.

Target indicators:

Education and upbringing
Number of trajectories / minor EP: training of teachers and specialists in environmental protection and sustainable development (bachelor's, master's, PhD), units.
Number of students trained in environmental education, environmental protection and sustainable development programs (number of students: bachelor's, master's, PhD), pers.
Number of teaching staff who have completed advanced training courses, internships and training in environmental education, environmental protection and sustainable development programs, people.
The number of developed and implemented elective disciplines in ecology, environmental protection and sustainable development, units.
The share of EPs that included disciplines on ecology, environmental protection and sustainable development,% of the total number of EPs.
Number of disciplines on ecology, environmental protection and sustainable development, for which online courses (MEP) have been developed, units.
The share of environmentally oriented topics of graduation theses,% of the total number of graduation theses per year.
The share of ecology-oriented topics of master's theses,% of the total number of master's theses per year.
The share of ecology-oriented topics of doctoral dissertations,% of the total number of doctoral dissertations per year.
The share of graduates employed in organizations / departments working in the field / industry of ecology, environmental protection and sustainable

development,%
Number of student organizations (groups, clubs, circles, associations, alliances, etc.) on ecology and environmental protection, sustainable development, units.
The number of events aimed at promoting environmental knowledge, the formation of environmental awareness, literacy, thinking, culture in society, units.
Number of publications on environmental topics in the media and social networks, units.
Thescience
Number of scientific projects on ecology, environmental protection and sustainable development, units (at the regional, republican, international and other levels)
Funding for research projects on ecology, environmental protection and sustainable development, units.
The amount of university funds allocated for scientific projects on ecology, environmental protection and sustainable development, units.
Amount of funds raised from other sources for scientific projects on ecology, environmental protection and sustainable development, units.
Number of research laboratories in the field of ecology, environmental protection and sustainable development, units.
Number of monographs, textbooks, educational and teaching aids on ecology, environmental protection and sustainable development: - teaching staff of the university - In collaboration with foreign scientists from universities in the TOP-200 QS ranking, units.
Number of scientific publications on ecology, environmental protection and sustainable development: - in magazines recommended Committee for Control in the Sphere of Education and Science by MESRK: - in peer-reviewed journals with quartile Q1-Q4, units.
Number of organized scientific conferences, webinars, seminars, round tables on ecology, environmental protection and sustainable development: - at the university level: - at the regional level: - at the republican level: - international level, units.
Number of start-up projects on ecology, environmental protection and sustainable development, units.

Activities aimed at achieving the indicators:

- Providing EP with environmentally friendly modules;
- Development of innovative eco-oriented trajectories / minor EP;



- Introduction of new and development of existing educational and methodological complexes of EP and disciplines, methods and forms of education in the field of «green economy», «green technology», «green chemistry» and sustainable development;

- Attracting employees of all structural divisions of the university to a responsible attitude to the environment;

- Improving the quality of training human resources and meeting the needs of society, employers in professional personnel in the field of environmental education, green economy, environmental protection and sustainable development;

- Organization of practical training for students in the EP «Water Resources and Water Use», «Agronomy», «Land Management», «Land Cadastre» on the basis of the agrobiological site and greenhouse facilities of the University;

- Organization of the environmentally oriented content of practice for students in EP 6V01517-Biology, 6V01518-Geography, 6V01515-Chemistry-Biology, 6V01515-Chemistry;

- Further implementation of the «Green School» project (since April 2021, by order of the Education Department of the Kyzylorda region, Lyceum №101 named after A. Muslimuly (Kyzylorda) has been designated as a pivotal school and an experimental platform for environmental education and upbringing. Head of the pilot project «Green School »- Associate Professor of the Department of«Biology, Geography and Chemistry», Ph.D. R.Kh. Kurmanbaev);



- Since 2022, the redesign of the Institute of Natural Sciences into the «Green Faculty», in which the organization of the educational process is aimed at acquiring knowledge by students and mastering the methods of research, practical, educational activities in 7 sections:

1. Biodiversity - the study of the species diversity of plants and animals of the Kyzylorda region, Kazakhstan and the ways of its expansion (Living corner, zoological museum, botanical garden, cultivation of indoor plants, landscaping, landscape design, training and production workshop «4B format»);

2. Energy saving - studying the structure of energy consumption and ways to reduce it (wind generator, solar panels, biogas, lamps with a photocell);

3. Water saving - studying the directions of using drinking water, water of rivers, lakes and mastering ways to save it (propaganda, eco-signs, taps with a photocell);



4. *Waste management* - analysis of sources of garbage and waste, determination of ways to minimize, recycle and reuse (trash cans in the building, propaganda, waste paper,);

5. *Information and environmental work* - conducting educational environmental work among educational institutions, at enterprises, the local population of the region and the republic (Student environmental campaigns, student newspapers, articles, study of local lore, conferences, webinars, seminars, trainings, stands, eco signs, bicycle parking, - tracks, - runs, 3 volumes) social networks.



6. «Green research work», «Green research work»(PROJECTS, items 1,2,3,4,5, topics of theses, master's, doctoral dissertations, hydroponics, greenhouse, scientific expeditions, articles, monographs, teaching aids,).

7. «*Green educational programs*» graduating departments of the faculty (elective disciplines, SOP, advanced training);

- Since 2023, the implementation of the educational project «Green Kindergarten - Green School - Green College - Green Faculty »;
- As part of the creation of the Center for Academic Excellence on the basis of the university, the opening of innovative scientific and educational research laboratories: Biodiversity and ecosystems of the Small Aral Sea, Ecophysiology and bioindicative research, Geoecology, mapping and GIS,

Multidisciplinary research in the natural and pedagogical direction, «Green chemistry» and environmental education

- Conducting scientific research in the following areas:
- Green Chemistry and Green Engineering;
- Inclusion in the agricultural turnover of agricultural lands that have come out of circulation;
- Monitoring of salinization, oxidation and heavy metal pollution of irrigated lands; Water-saving technologies in the production of crops in the Kyzylorda



irrigation array;

- Production of diversification crops in the conditions of the Kyzylorda region; Green energy (nisterite, nerovenite, sensitized solar panels);

- Innovative rice production technologies in the Kyzylorda region;

- Influence of the state of soil, water and air on the quality of crops and others;

- Development of infrastructure for research work and implementation of innovative technologies on environmental protection and sustainable development;

- Organization of training

seminars, trainings, lectures, master classes on various environmental aspects, special courses, competitions, debates, round tables for various categories of students interested in a careful and rational attitude towards their natural environment;

- Social work, development of environmental education and environmental culture of youth;
- Increasing the level of awareness of all groups of the population through environmental education and upbringing, contributing to the assimilation of a number of environmental and ethical norms, values, professional skills that are required to ensure sustainable development; Popularization of knowledge, activities on green economy, environmental protection and sustainable development among all groups of the population through the media, social networks, etc.





INFRASTRUCTURE MANAGEMENT AND ENVIRONMENT

The main goal: to minimize the negative impact on the environment by introducing the latest achievements of science and technology in improving the energy efficiency of the campus, improving and further greening the agrobiological site and integrating it into the environment, the city's ecosystem.

Tasks:

- landscaping of the campus;
- holding international environmental campaigns «Clean-up day», «green» youth festivals;
- eco-friendly «book circulation»;
- separate waste collection;
- environmentally friendly food, clothing and organization of life;
- Creation of a recreation area for city residents on the basis of the agrobiological site.



Expected results:

- improving the quality of life of employees and students, and consequently, increasing their efficiency;
- landscaping of workplaces (campus and office), creation of aesthetic eco-comfort;
- a recreation area for city residents on the basis of an agrobiological site.

Target indicators:

Total campus area, ha/sq.m/sq.km
Number of educational buildings on campus, units.
Total building area, sq.m
Share of expenditures in the university budget allocated to environmental protection and sustainable development, %
Number of construction / redevelopment / energy efficient design projects on campus based on environmental criteria, % of the total number of all construction projects.
Number of programs for the conservation, enhancement (bio) diversity: landscaping and selection of suitable vegetation types, planning of new areas, etc., units.
Total number of parking spaces for vehicles, units.
The share of parking spaces for vehicles arranged in accordance with the established criteria for nature protection, % of the total number of parking spaces.
Number of parking spaces for bicycles, skating/roller storage, etc. , units/% ratio with the number of students.
Number of events to promote environmentally friendly transport: bicycle promotions, roller skates, environmentally friendly public transport, etc., units.
Number of events dedicated to environmental and sustainable development issues developed jointly with city, state and public organizations, units.
The number of university teaching staff who are experts, consultants, collaborating with city and government organizations and participating in the development of urban infrastructure, the formation of plans and strategies for environmental protection and sustainable development, pers.
Participation of the university in the international ranking - Green Metric Ranking of World Universities.

Activities aimed at achieving the indicators:

- Inclusion in the University Development Plan of an expense item aimed at environmental protection and sustainable development;

- Implementation of environmental and bioclimatic criteria in building design in the preparation of projects for the construction / redevelopment / energy-efficient



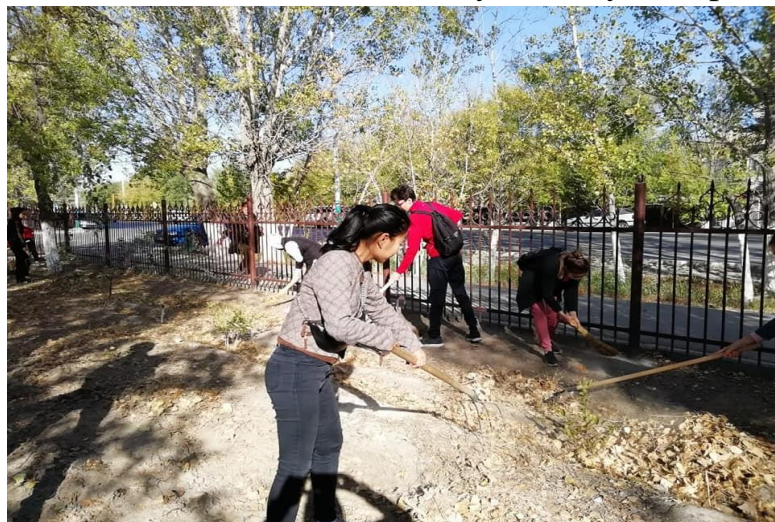
- design of the university territory; Implementation of the Strategic Plan for the Development of the Agrobiological Center for 2021-2025; Development of a program to improve the biodiversity of the campus: selection of suitable vegetation types, new areas, etc.;

- Increase in parking spaces for motor vehicles arranged in accordance with nature conservation criteria;

- Enlargement of pedestrian zones and improvement of existing ones, carrying out planning and restructuring of parking lots;

- Systematic implementation of activities for: promotion of environmentally friendly transport: bicycle promotions, videos, environmentally friendly transport; devoted to issues of environment and sustainable development together with the city authorities;

- Development of projects in the field of environmental protection and sustainable development with the participation of universities, city and government organizations, international partners;



- Establishment of the Council for Sustainable Development consisting of the heads of departments of the University for managing, planning and monitoring the implementation of the Sustainable Development Strategy.



HEALTHY LIFESTYLE UNIVERSITY

The main goal: the formation of a health culture of the subjects of the educational process based on the awareness of health as a value, the formation of motivation for a healthy lifestyle, the inculcation of knowledge, skills and habits of a healthy lifestyle.

Tasks:

- creation of study and work conditions for students and employees that meet sanitary and hygienic requirements, optimal distribution of study and workload;



- formation of an understanding among students and staff that caring for their health is the key to their success throughout their subsequent lives;

- introduction of a cycle of educational and educational programs aimed at acquiring knowledge, skills and abilities of maintaining and promoting health by students and staff, and forming a culture of health;

- introduction of a system of measures related to the improvement of catering, healthy leisure and recreation;

- formation of a negative attitude towards the use of tobacco, alcohol and drugs;

- providing psychological assistance available to students and staff; providing psychological assistance available to students and staff;

- preparation and implementation of programs of recreational activities, holding educational seminars and trainings for students and employees.



Expected results:

- improving the health status of students and university staff;
- students' awareness of the value of health, an increase in the proportion of



- students who have given up bad habits;
- increasing the level of academic achievement;
- increasing the interest of students, employees, faculty in health promotion, the formation of a sustainable need for regular mass physical education and sports;
- increasing the stress resistance of students, teachers and employees;
- increasing the level of competence of university graduates who are ready for further

popularization of the basics of a healthy lifestyle among the population;

- active longevity of employees, teaching staff, their full performance of social functions, their involvement in the process of health protection and education by personal example.

Target indicators:

Number of sports sections, units.
The number of mass sports events held with the participation of students and teaching staff, units.
Monitoring the participation of students in the sports sections of the university and the city. The share of participating students involved in physical culture and sports (city sports sections and competitions), %
Number of events aimed at creating a health-saving environment, a healthy lifestyle, units.
Satisfaction of students with the creation of conditions for personal development and education, %
Number of university student teams participating in the National Student League, units.
The number of champions and prize-winners of the World Championship, Asia and international, republican competitions in various sports, pers.

Activities aimed at achieving the indicators:

- Organization and holding of competitions, promotions dedicated to the promotion of a healthy lifestyle and the preservation of health;
- Conducting lectures, round tables, seminars aimed at acquiring knowledge, skills and abilities to preserve and promote health by students;
- Work of sports sections (football, volleyball, swimming, basketball, table tennis, boxing, wrestling, powerlifting, chess, togyzkumalak, fitness);
- Organization of mass cultural, sports and health-improving events (Olympics«Freshman», competitions in sports «Cheerfulness and Health» sports competition among employees and teachers during the winter holidays, a volleyball tournament among women dedicated to International Women's Day - March 8 , Republican volleyball tournament in memory of the Honored Coach of the Republic of Kazakhstan, Professor Nikolai Shindin and others);



employees and students of the university;

- Organization of thematic exhibitions of literature from the fund of the scientific library of Kyzylorda Korqyt ata University .
- Organization of consultations of doctors, lawyers, psychologists, psychotherapists on various issues of a healthy lifestyle;
- Implementation of the annual medical examination of
- Informing about events dedicated to the theme of a healthy lifestyle, taking place at the university and beyond;
- Involvement of students in the creation of media materials and projects dedicated to a healthy lifestyle, aimed at popularizing this direction;
- Carrying out monitoring of the social well-being of students;
- Carrying out monitoring of the effectiveness of the functioning of sports sections;
- Conducting a comprehensive study of the public catering sector at Kyzylorda Korqyt ata University;
- Conducting a sociological survey «House of students: conditions of life and leisure».





«GREEN ENERGY»

The main goal: the formation of a systematic, integrated approach to the transition of the university to an energy-intensive economy through the implementation of measures for energy efficiency, saving water, electricity, waste disposal, etc.

Tasks:

- implementation of energy saving and energy efficiency improvement programs at the university;
- development of automated electricity metering in buildings and buildings of the university in order to conduct energy audits;
- generation of electricity from renewable energy sources;
- development of programs and measures to save water consumption;
- developing measures and encouraging the use of water management systems;
- implementation of programs to reduce greenhouse gas emissions;
- initiation of agreements with city organizations for the collection, disposal, recycling of waste;
- processing of non-organic waste and organic waste, creation of conditions for separate collection of waste, etc.



Expected results:

- the transition of the university to an energy-intensive economy through the implementation of measures for energy efficiency, saving water, electricity, waste disposal, etc.;
- reduction of CO₂ emissions and greenhouse effect through the use of renewable energy sources;
- appropriate value orientations have been formed among students and employees, a developed university culture;
- budgetary savings.

Target indicators:

Energy efficiency
Total amount of electricity consumed, kWh
Total amount of heat energy consumed, m ²
Percentage of energy efficient appliances in the total volume of electrical appliances, %
Percentage of electric energy from the total volume of consumed energy received from renewable sources (solar, wind, etc.), %
The number of electricity metering devices (meters) in the buildings and buildings of the university, % of the total number of buildings
Total amount of electricity generated from renewable sources, kW
Energy saving programs (actions taken to encourage people to reduce their energy use), yes/no
Water supply
The total amount of all water consumed and all sources, cubic meters
The total amount of water consumed through the water supply system: from utilities, cubic meters
The number of water meters (meters) in the buildings and buildings of the university, % of the total number of buildings
Waste management
Amount of disposed toxic waste, kg
The amount of office paper used, normalized to the number of scientific and pedagogical and educational support staff, kg
Reduction of greenhouse gas emissions, %
Number of agreements with city organizations for the collection, disposal, recycling of waste, number
Sewerage (main methods of treatment and disposal of sewage)
Transport
Number of vehicles owned by the university, number
The number of vehicles entering the territory of the university daily, number
Limiting the number of motor vehicles used on campus, the number.

Activities aimed at achieving the indicators: energy efficiency



- Purchase of energy-saving devices;
- Installation of renewable energy sources (solar batteries on the roofs of buildings);
- Creation of an energy saving program;
- Implementation of an internal corporate culture of energy conservation.

Water supply

- Creation of a water saving program;
- Installation of water meters;
- Installation of water-saving nozzles;
- Replacement of plumbing.



Waste management

- Creation of a program for separate waste collection;
- Conclude agreements with city organizations for the collection, disposal, recycling of waste;
- Development of a policy to reduce greenhouse gas emissions;
- Purchase of instruments for measuring emissions into the atmosphere.



Transport



- Reducing the number of cars entering the territory of the university;
- Purchase of vehicles using gas as fuel.

CONCLUSION

In the modern world, in view of the current social, environmental, economic situation and the deepest crisis, more and more attention is paid to the creative impact on the environment. At the UN summit held in Johannesburg in 2002, most experts noted that one of the priorities of the world community is education for sustainable development. In this connection, the key role of the university is to train a specialist and a citizen who is ready to fulfill his role in society - the implementation of the concept of sustainable development in practice.

This Strategy, in the development of which teachers, students, university staff were actively involved, outlines the position of Kyzylorda Korkyt Ata University in promoting the idea of sustainable development.

The implementation of the Sustainable Development Strategy at the university, its introduction into the corporate culture, will make it possible to get closer to solving global problems, and will contribute to the solution of sustainable development issues.

*Considered and approved at the meeting of the University Academic Council on
29 December 2021, protocol No. 7*