



NJC «Kazakh National Agrarian Research University»

**Approved
Board Member,
First Deputy Chairman of the Board - Rector
Doctor of Veterinary Sciences, Professor
NJC "Kazakh National Agrarian Research University".
P. Sh. Ibragimov
26 August 2024 year**



**CONCEPTION OF THE STRATEGY FOR ACHIEVING CARBON NEUTRALITY AND
SUSTAINABLE DEVELOPMENT OF KAZNARU**

Almaty, 2024

CONCEPT OF THE STRATEGY FOR ACHIEVING CARBON NEUTRALITY AND SUSTAINABLE DEVELOPMENT OF KAZNARU

General Provisions

Kazakhstan, like the entire world community, is actively seeking ways to adapt to global climate change, achieve carbon neutrality and sustainable development, striving to ensure sustainable and progressive growth, social inclusion and environmental protection in partnership and peace.

In early 2023, the Republic of Kazakhstan adopted the "Strategy for achieving carbon neutrality of the Republic of Kazakhstan until 2060", which was preceded by extensive and multidisciplinary work on the implementation of the "Concept of transition of the Republic of Kazakhstan to a "green economy", development and implementation of state Programs of industrial and innovative development, and implementation of the UN Sustainable Development Goals (SDGs).

"Kazakhstan has made a long-term commitment to achieve carbon neutrality. In fact, our country was one of the first to ratify the Paris Agreement. Following this, we have formulated an ambitious but well-thought-out policy that aims to diversify the economy and promote renewable energy and sustainable technologies," said Kazakhstan's President Kassym-Jomart Tokayev at the recently held Sustainable Development Summit in Abu Dhabi, UAE (2023). Implementing low-carbon policies aimed at adapting to the effects of climate change should be comprehensive and involve various sectors of the economy. Still, the transformation of scientific, technological, and professional human resources plays a key role.

Kazakhstan, like other countries of the world, needs highly qualified specialists, managers, and researchers in advanced technologies for the timely implementation of the SDGs. Universities can provide their qualitative training!

The activities of modern universities are carried out within the framework of national and international initiatives and programs that aim to strengthen stability in the region and develop their national contribution to global issues such as sustainable development. In this regard, the UN initiatives aim to strengthen stability in the

region and work 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, play a huge role in addressing global challenges.

The primary role of universities lies in solving these tasks: in their scientific support, dissemination, accumulation, and dissemination of ideas of sustainable development through university networks, professional communities, mass media and other resources. We need to work ahead of the curve to carry out scientific and practical development of programs and activities aimed at sustainable development.

The **role of the Kazakh National Agrarian Research University**: the university can contribute to the process of planning, development and implementation of effective policies in terms of the development of hydrocarbon neutrality in the context of the realization of the Sustainable Development Goals (SDGs).

Kazakh National Agrarian Research University can mobilize research and student potential to implement the development and mastering of new educational programs to achieve carbon neutrality in KazNARU in the context of the implementation of Sustainable Development Goals (SDGs). *

The **strategy to achieve carbon neutrality and sustainable development of our university** can be presented as an interdependent set of the following basic principles:

1. Incorporating sustainable development into curricula and research topics.

We strive to ensure that the university teaches courses and offers entire programs of study dedicated to the sustainable development of the enterprise, industry, region, and country. Research in the field of sustainable development is not only necessary

to support the disciplines taught, it creates new knowledge that is then transformed into concrete actions, programs and activities.

2. Building the current activities of the university on the principles of sustainable management of infrastructure and environment

This implies using energy-saving equipment, technologies, alternative sources and types of energy. The principles of sustainable development should underlie all functions of the university: administrative, economic and financial activities, construction, staff selection, student recruitment, development of cooperation and partnership programs with other organizations for sustainable development, etc. The university's activities should be based on the principles of sustainable development. The concept should provide for a sustainable university.

Objectives:

1. Increase the number of environmental and sustainability projects and research activities conducted at the interdepartmental, city, state, and international levels.
2. To develop the infrastructure for conducting research work on environmental protection and sustainable development.
3. To promote communication, coordination, and collaboration among scholars in the field of environmental sustainability and environmental justice.
4. Support interdisciplinary sustainability research teams in response to major funding opportunities.
5. Seek to influence research sponsors' priorities to address sustainability research challenges.
6. Fund research on negative emissions technologies and net gain in biodiversity, consistent with the goals of the strategy to address environmental and social justice issues and to recognize the University's historical impact in these areas.
7. Popularize environmental and sustainability knowledge, activities, research, and projects to all constituencies through the media.

Strategies for achieving carbon neutrality

According to the Strategy for Achieving Carbon Neutrality of the Republic of Kazakhstan until 2060, approved by Presidential Decree No. 121 of February 2, 2023, research and development, innovation and education are essential for low-carbon development and transition to carbon neutrality and adaptation to the effects of climate change. Transformation of Kazakhstan's economic structure within the framework of low-carbon development and transition to carbon neutrality will require scientific, technological and professional human resources.

In this regard, KazNARU expresses its readiness to consider the issue of achieving carbon neutrality by 2040.

KazNARU aims to introduce best practices in management and implementation of research and teaching in practice, using our university as a pilot in the implementation of optimal solutions that can be widely disseminated. Our main goal, which is a red line in KazNARU's research and educational mission: to nurture and empower our students to become leaders who will use their knowledge to create a sustainable society.

The main objective of this work -- mobilized the university communities and allowed the administration to lay the foundation for the creation, expansion and achievement of university-wide goals by ensuring collaborative work in different areas and sectors.

In addition, the university has made significant progress in reducing energy costs and emissions (sustainable transportation, energy conservation, resource conservation, sustainable maintenance, engaging all employees, and students in green lifestyle parameters).

The plan establishes clear university-wide goals and priorities based on innovations and solutions that have been developed by our faculties and departments. It is designed to optimize the operations and activities of the entire university structure. KazNARU has reviewed and analyzed sources of greenhouse gas emissions in accordance with the Greenhouse Gas Protocol. The broader scope of Category 3 emissions is included in our broader goal of achieving carbon neutrality of direct emissions by 2050, with a small number of emission sources considered out of scope (students in private housing and tourist travel).

Category 1: Direct emissions from own or controlled 15 sources, i.e. gasoline used in own transportation system.

Category 2: Indirect emissions from the production of purchased energy consumed by the university, i.e. purchased electricity.

Category 3: All other indirect emissions occurring in the value chain of the university's activities, i.e. travel or the purchase of goods and services.

As a large complex organization, 80% of the universities total carbon footprint is associated with emissions that fall under category 3.

The draft document "Concept of sustainable development of KazNARU campus" (hereinafter - the Concept) is developed in accordance with the legislation of the Republic of Kazakhstan, the Charter of "Kazakh National Agrarian Research University" (hereinafter - KazNARU) to regulate the main relations to ensure sustainable development of KazNARU and prepared by the International Office of KazNARU under the leadership of Rafis Fanisovich Abazov, Vice-Rector for International Relations and Strategic Development of "Kazakh National Agrarian Research University" (hereinafter - KazNARU). Documents and programs of various universities were used in the preparation of this program.