



«Approved»

Al-Farabi Kazakh National University
Member of the Board – Vice Rector for the
Scientific and innovative activities

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UNIVERSITY POLICY OF NUTRITION AND WASTE MANAGEMENT

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Introduction

The University's nutrition and waste management policy is necessary to ensure a high-quality supply of our vital resources in the face of the growth of the nutrition sector, high levels of pollution and the intensification of consumption of food products associated with climate change. An integrated approach to the management of the university's nutrition and consumption sector to solve the urgent problems of pollution on the university campus, which are interrelated with other economic, environmental and social problems.

This policy aims to ensure sustainable and responsible food collection in order to minimize environmental impacts and support local communities. The University strives to use all ecosystem resources in a way that preserves their biodiversity and health. The education and activities of the university are the guarantor of achieving sustainable development and its promotion in the state and can offer a model of behavior for creating a more prosperous society in terms of economic viability, social equality and environmental protection. Environmental education strives to solve problems related to the transition to a circulating economy, with the preservation of ecosystems, adaptation to climate change, gender equality and the introduction of relevant technologies for energy and resource conservation.



Goals and objectives:

Al-Farabi Kazakh National University is focused on such areas as:

1. Training of highly qualified specialists at all levels of bachelor's-master's-doctoral studies, competitive in the domestic and international labor market, whose distinctive feature is the understanding and application of interdisciplinarity in professorial activities.
2. Conducting scientific research in the field of environmental management and waste management.
3. Involvement and motivation of students and young scientists in the processes of implementing the best international experience in the transition to the parameters of the circulating economy. The main role of universities lies precisely in their scientific support, dissemination, accumulation and dissemination of ideas of sustainable development through university networks of interaction, professional communities, mass media and other resources.
4. Support for international sustainable development programs: Education for Sustainable Development Programs and Declarations developed at the UN

RIO+20 Global Environmental Forum; United Nations Academic Impact principles, UNESCO Education for Sustainable Development Program, etc

Basic principles:

The University's nutrition management policy is based on three principles:

- The inclusion of issues of sustainable development and environmental management in educational programs and research topics;



- Building the University's current activities on the principles of sustainable infrastructure management in the field of rational use of resources (including food);



- support initiatives related to a healthy lifestyle and sustainable development, including **vegetarianism**. Paying attention to a variety of nutrition, including vegetarian and vegan options, allows students, teachers and staff to adhere to their dietary preferences.



Environmental aspects

1. *Environmental protection and restoration*: study of issues of prevention of pollution by organic, plastic, etc. multicomponent waste.
2. *Monitoring and practice*: regular collection of data on the functioning of the university's waste management system.



Political and legal aspects

1. *Standardization and regulation*: implementation and adherence to quality standards in the field of nutrition at the university, regulation of food supply processes at the university.
2. *Environmental law*: creation of an effective food and waste management system that ensures a fair and optimal mechanism for its implementation.

Technological aspects

1. *"Green" technologies*: the application of technologies for efficient waste management.
2. *Infrastructure*: construction and modernization of waste management infrastructure. Social aspects

Social aspects

1. *Education and enlightenment*: training in educational programs "Ecology", "Geoecology and environmental management", "Hydrology", "Geography", etc. dissemination of information and organization of events on waste disposal methods and resource conservation, sustainable water use among the population.
2. *Community involvement*: activation of local communities in decision-making processes to ensure the quality of the nutrition sector and its circulation system.



Economic aspects

1. **Economic incentives:** the creation of economic mechanisms for the effective and profitable implementation of food programs.
2. **Investments:** attracting investments in projects and research on the sustainable management of food waste and related materials.

Implementation and monitoring

1. **Pilot projects:** development and implementation of scientific and social projects to solve problems of water safety, management of transboundary waters to test the effectiveness of various approaches in water allocation.
2. **Monitoring and reporting:** regular data analysis to assess the effectiveness of current measures. This concept is iterative and should be reviewed regularly to take into account new data, technologies and socio-economic conditions.



Basic principles of sustainable development on water resources

Environmental integrity

This principle is to keep the ecosystems on campus uncontaminated and aesthetically pleasing.

Economic efficiency

Getting the maximum benefit from the introduction of a single nutrition Center at the university

Social justice

Equal and fair access to resources for all, including vulnerable groups. In addition, the principle includes actions to apply modern technologies to reduce water losses and reduce waste.

Political and legal aspects of sustainable development

1. **Standardization and regulation** Implementation and maintenance of strict quality standards for environmental components, regulation of food supply processes, as well as compliance with the implemented waste management system at the university.
2. **Environmental law** Creation and promotion of an effective and transparent system of environmental rights and fair use of natural resources, which ensures an equitable distribution of resources and takes into account environmental and social factors.

Technological aspects of sustainable development

1. Effective food waste management system

To develop a unified system of restaurants and cafes of KazNU "EkoTamak" for both employees and students and guests of the university.

- Reduction of food waste at the source.
- Installation of specialized waste collection containers.
- Reducing the use of disposable tableware.

2. Sustainable food use and processing Cleaning technologies should be energy efficient, cyclical and re-usable. - Composting, Application of organic fertilizers to the soil (involvement of the KazNU agrobiostation); - Growing organic plants for university restaurants and cafes; - Application of organic fertilizers to the soil



Environmental aspects of sustainable development in water resources



This aspect includes scientific, innovative and educational integration in the areas of:

- protection and restoration of aquatic ecosystems;
- assessment of ecosystem services;
- development of measures for monitoring and control of food waste
- rational use of water resources taking into account the needs of the food sector;
- development and implementation of plans for sustainable management of the university's food supply sector;
- research on food products based on the scientific center for sustainable development and environmental management.



Social aspects of sustainable development for water resources

1. Sustainable implementation

The implementation of an optimal system for the implementation of a unified system for food products and their waste is an example of the implementation of the parameters of the circular economy

2. Public participation in food waste management

Involvement of citizens and communities in the decision-making process on waste management.

Organization of conferences, forums, round tables, blitz reports at the international and national level, as well as development of advanced training courses on the topic of water resources management.

3. Education and awareness

Raising the level of education and awareness of the population on sustainable waste management and recycling through information campaigns, media and social networks.

Implementation of these social aspects requires an integrated approach, including close cooperation with technological and environmental aspects to achieve responsible consumption.

Economic aspects of sustainable development in water resources

This aspect includes:

- assessing the current state of the system and creating a long-term modernization plan;
- implementing techniques and technologies to improve waste management efficiency with a visible economic result;
- optimizing the use of water and other resources to meet economic needs without harming ecosystems;
- developing and implementing projects of national and international importance on responsible consumption and production

Economic aspects play a key role in ensuring sustainable development of water resources. They should be integrated with technological, environmental and social aspects to create a comprehensive and sustainable management system for responsible production and consumption.

Each of these environmental aspects is necessary to create a sustainable, balanced and effective resource and waste management system that takes into account the needs and responsibilities of humans to nature. This system must be flexible to adapt to changing conditions and challenges. The system must strive for continuous improvement.

University Food and Waste Management Plan by 2035

KazNU is committed to achieving the 2035 target of reducing food-related greenhouse gas emissions by 15%.

University Goal: To implement practices and motivate the university community across campus to reduce and redirect food waste from landfills and recycling.

Follow these steps:

1. Reducing food waste at source;
2. Redirecting products to the needs of vulnerable populations (e.g. food donations or applying a discount system);

3. Redirecting products for agricultural and industrial purposes in Almaty region;
4. Developing a unified system of KazNU restaurants and cafes "EcoTamak" for both employees, students and guests of the university;
5. Composting, adding organic fertilizers to the soil (involving the KazNU agrobiological station)
6. Monitoring and controlling food waste and reporting at least twice a year;
7. Establishing and maintaining interaction with a local partner for food donations (interaction with shelters, social workers and animal shelters);
8. Growing organic plants for the university restaurants and cafes;
9. Use social media, posters and email newsletters to disseminate information on sustainable food management;
10. Implement startups to digitalize processes for rational use of food products.