

ORGANIC AGRICULTURE: REALITIES AND PROSPECTS IN KAZAKHSTAN

ОРГАНИКАЛЫҚ АУЫЛ ШАРУАШЫЛЫҒЫ: ҚАЗАҚСТАНДАҒЫ ШЫНДЫҚ ПЕН
ПЕРСПЕКТИВАЛАР

ОРГАНИЧЕСКОЕ СЕЛЬСКОЕ ХОЗЯЙСТВО: РЕАЛИИ И ПЕРСПЕКТИВЫ
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Abstract. Green economy is one of the most important aspects of the country's sustainable economic development. The transition to "green" economy will allow Kazakhstan to achieve the set goal of becoming one of the thirty most developed countries in the world. The authors analyzed the Concept of "green" economy, one of its priority directions is the development of organic farming, which is currently a modern global trend. The size of the land areas allocated for the cultivation of organic products in the republic and regions of the world for a number of years is shown and comparative analysis is conducted. The number of Kazakhstani producers of environmentally friendly products and also in other countries of the world is presented. It was revealed that the leading States in this area are the USA, Germany, France and Canada. The organic market there has a pronounced export character. In countries where the organic sector is developed, the farms are members of environmental unions, and undergo certification and food labeling. Certification is not limited to quality control of goods and includes monitoring of land and the entire production process. Kazakhstan is creating a system of integrity and traceability of products of organic origin, contributing to the improvement of ecological balance, conservation of natural resources, maintenance of biodiversity, formation of a national brand with an emphasis on environmental friendliness, taking into account the increase in exports of domestic food products to other countries.

Аңдатпа. "Жасыл" экономика - елдің тұрақты экономикалық дамуының маңызды аспектілерінің бірі. "Жасыл" экономикаға көшу Қазақстанның әлемнің ең дамыған отыз мемлекетінің қатарына кіру жөніндегі алға қойылған мақсатқа қол жеткізуін қамтамасыз етуге мүмкіндік береді. Авторлар "жасыл" экономиканың Концепциясын талдады, оның басым бағыттарының бірі – қазіргі кездегі замнауи әлемдік тренд болып табылатын органикалық егін шаруашылығын дамыту. Органикалық өнім өсіруге бөлінген жерлердің көлемі республика мен әлемнің өңірлерінде бірнеше жыл ішінде көрсетіліп, салыстырмалы талдау жасалған. Қазақстандық экологиялық таза өнім өндірушілердің саны әлемнің басқа да елдерінде ұсынылған. Олардың өндірісі бойынша көшбасшы мемлекеттер - АҚШ, Германия, Франция және Канада екені анықталған. Мұнда органикалық нарық айқын экспорттық сипатқа ие. Органика секторы дамыған елдерде шаруашылықтар экологиялық одақтарда тұрады, азық-түлікті сертификаттаудан және таңбалаудан өтеді. Сертификаттау тауарлардың сапасын бақылаумен шектелмейді және жер алқаптарының мониторингін және оны шығарудың бүкіл процесін қамтиды. Қазақстан экологиялық төңгерімді жақсартуға, табиғи ресурстарды сақтауға, биоәртүрлілікті қолдауға, отандық азық-түліктің басқа елдерге экспортын ұлғайтуды ескере отырып, экологиялыққа баса назар аудара отырып, ұлттық бренд алуға ықпал ететін органикалық өнім тұтастығы мен қадағалану жүйесін құрады.

Аннотация. «Зеленая» экономика – один из важнейших аспектов устойчивого экономического развития страны. Переход к «зеленой» экономике позволит Казахстану обеспечить достижение поставленной цели по вхождению в число тридцати наиболее развитых государств мира. Авторами проанализирована Концепция «зеленой» экономики, одно из ее приоритетных направлений – развитие органического земледелия, которое в настоящее время является современным мировым трендом. Показаны размеры площадей земель, выделенных под выращивание органической продукции, в республике и регионах мира за ряд лет и дан сравнительный анализ. Представлено количество казахстанский производителей экологически чистых продуктов и в других странах мира. Выявлено, что государства-лидеры по их производству - США, Германия, Франция и Канада. Органический рынок здесь имеет ярко выраженный экспортный характер. В странах, где развит сектор органики, хозяйства состоят в экологических союзах, проходят сертификацию и маркировку продовольствия. Сертификация не ограничивается контролем качества товаров и включает мониторинг земельных угодий и всего процесса ее выпуска. Казахстан создает систему целостности и прослеживая продукция органического происхождения, способствующую улучшению экологического баланса, сохранению природных ресурсов, поддержанию биоразнообразия, получению национального бренда с акцентом на экологичность с учетом наращивания экспорта отечественной продовольствия в другие страны.

Key words: “green” economy, agriculture, organic products, ecological balance, producers, consumption, market, sale, certification, demand, export, import.

Түйінді сөздер: "Жасыл" экономика, ауыл шаруашылығы, органикалық өнім, экологиялық теңгерім, өндірушілер, тұтыну, нарық, сату, сертификаттау, сұраныс, экспорт, импорт.

Ключевые слова: «зеленая» экономика, сельское хозяйство, органическая продукция, экологический баланс, производители, потребление, рынок, продажа, сертификация, спрос, экспорт, импорт.

Introduction. Recently, the developing concept «Green» Economy has been actively promoted in scientific and political circles. The UN conference on sustainable development, held in June 2012 in Rio de Janeiro, was dedicated to the this type of Economy. The increased interest in the concept is associated with the growing frustration of the existing economic model and the numerous crises and failures of the market mechanism that are observed at the beginning of the new century [1]. Therefore, the transition of the world's countries to the concept becomes the key to sustainable development in countries.

Also Kazakhstan is not exception and in 2013, the concept for the transition to «Green» Economy was approved. This Economy is one of the most important tools for ensuring the country's sustainable development. The transition to «Green» Economy will allow Kazakhstan to achieve its goal of becoming one of the 30 most developed countries in the world [2]. Therefore, this economy can act as a paradigm of sustainable development in Kazakhstan's agriculture.

As result, the development of «Green» Economy, in accordance with the decisions of

the Rio+20 conference on sustainable development, will be promoted by food security, nutrition and sustainable agriculture based on an ecosystem approach. Today, organic agriculture is becoming particularly popular. According to the US National Organic Standards Board, organic farming is an ecological production management system that supports and enhances the biological variability, biological cycles, and biological activity of the soil. This is based on minimal off-farm investment and management practices that restore, maintain and enhance environmental harmony. It is worth noting that the transition to organic farming does not mean simplification, and does not exclude a comprehensive approach to solving tasks using modern methods and tools, but only introduces some restrictions, for example, on the use of mineral fertilizers, pesticides, herbicides, GMOs, etc., the use of which, in fact, harms the health of nature and man as part of it.

Material and methods of research. The methodological basis of this article consists on theoretical developments in «Green» Economy field, the results of applied research on the problems of development and the current state of the «Green» Economy.

In the scientific literature, such concepts as «Green Economy», «Resource-Efficient Economy», «Low-Carbon Economy», «Bio Economics», «Ecological and Economic Development» and etc., which to a certain extent characterize the aspects of this types of Economy. One of the first fundamental researches that focused on the problems of the Economy was the book of famous English economists D. Pearce, A. Markandya, E. Barbier Project of «Green» Economy [3]. The work of UNEP in «Green» Economy field attracted attention to this concept in 2008 after the financial and economic crisis. One of the initiatives to address the crisis situation was the United Nations call for a Global «Green» new deal [4, 5].

The research also used special techniques of economic knowledge, comparative method, economic and statistical groupings, mathematical statistics, methods of expert assessments, economic and mathematical and etc. To analyze the current state of «Green» Economy in agriculture were used: the methods of scientific generalization and classification, and the method of system analysis. Along with General scientific methods, statistical analysis was used to identify those processes that were not taken into account, and to determine the most

significant categories that provide complete information about the state and development of food security in the country.

Results and their discussion. Today, many researchers believe that significant features of a «Green» Economy are: efficient use of natural resources, conservation and increase of natural capital, reduction of pollution, low carbon emissions, prevention of loss ecosystem services and biodiversity, growth of income and employment. The term «Green» Economy at the present stage has not received a full and indisputable definition, since the corresponding concept is under development and has not yet received an unambiguous assessment of society [6].

A lot of countries are successfully implementing the Concept of «Green» Economy, for example, countries such as the United States and Japan have achieved significant success and financial benefits in this direction. Also, many countries such as Switzerland, Croatia, the Netherlands, the Scandinavian countries, Japan and the United States are actively fighting for environmental protection.

At the present stage, the following leaders of «Green» investments are highlighted, which are aimed at environmentally oriented activities of the state budget:

- China – 22 300 million euros;
- Republic of Korea -9 300 million euros;
- Japan – 12 300 million euros;
- France-5 700 million euros;
- Denmark-700 million euros;
- Belgium – 118,8 million euros [7].

In Kazakhstan, as mentioned above, the Presidential decree of may 30, 2013 approved the Concept for the country's transition to «Green» Economy. The Republic of Kazakhstan is one of the first countries in the world to adopt a strategic document for the transition to this Economy at the state level and has been successfully implementing it for several years. Target indicators, norms and measures of the Economy are included in the legislative acts and program documents of Kazakhstan, are guidelines for all government's levels and all civil society sectors.

The main aspects of activities that are included in «Green» Economy Concept, which includes 7 areas and is shown in figure 1.

According to this Concept in Kazakhstan and figure 1, one of the directions of this Concept is the organic farming development in agriculture. Organic agriculture today is one of the modern world trends that is gaining momentum.

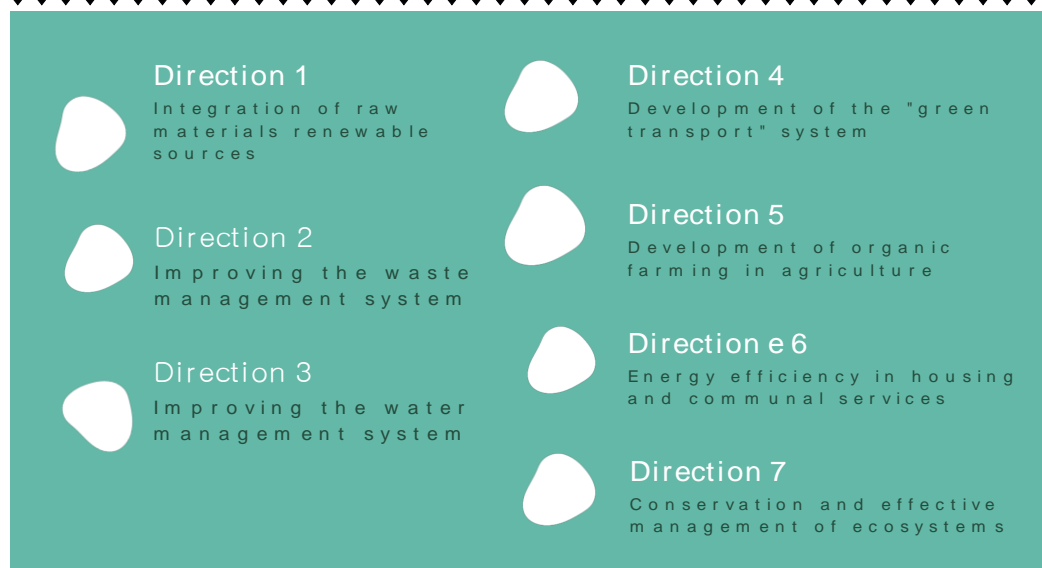


Figure 1 - Main directions of the Concept of «Green» Economy of Kazakhstan [Ik.2]

According to the research «The world of agriculture. Statistics and emerging trends», conducted in 2019 by The Research Institute of Organic Agriculture (German: Forschungs-

institut für biologischen Landbau, then – FiBL) and IFOAM, organic agriculture is engaged in 179 countries (table 1) [8,9].

Table 1- Key indicators of organic agriculture. The country's leaders, 2019

Indicators	World	The country's leaders
The countries involved in organic agriculture	179 countries	Brunei Darussalam, Cape Verde, Hong Kong, Cuvette Monaco, Sierra Leone, Somalia
Organic agricultural land	50,9 million ha	Australia - 22.7 million ha, Argentina with 3.1 million hectares, US – 2 million ha
Producers of organic products	2,4 million	India - 582,2 thousand, Ethiopia - 203602, Mexico - 200039
The market of organic agricultural products	81,6 million \$	US-39,7 million \$ Germany-9,5 million \$ France – 6,1 million \$
Consumption of organic products per capita	11,1 \$	Switzerland-291 \$ Denmark-212 \$ Sweden-196 \$

Today, quite a large amount of land is allocated for organic production in the world. Only lands that have passed the transition period are accepted for consideration.

In modern conditions of development Kazakhstan has 277 thousand hectares of organic land, and compared to Europe – 15,6 million hectares, North America – 3,3 million hectares, Latin America – 8,0 million hectares, Africa – 2,0 million hectares, Asia-6,5 million hectares lags far behind and occupies only a small share of the total land area of the country. Basically, the increase in the total area of organic agricultural land in the world is due to the transformation of existing arable land and gardens in accordance with the standards of organic agriculture, as well as

through the development of new territories. This trend indicates that in the near future we can expect an increase in the supply of organic products on the market.

Now let's look at the number of organic producers in Kazakhstan, which are shown in table 2.

According to table 2, in 2019 India has the largest number of producers of organic agricultural products – 1 149 371, Austria – 25 795, Germany-31 713, Italy - 69 317, and in Kazakhstan, only 63 farms produce organic agricultural products. In countries where organic production is developed, organic farms are part of ecological unions. This membership allows manufacturers to pass certification and mark products in accordance

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with the sign of belonging to the Union, land, state. Certification of the enterprise in accordance with the requirements for organic agriculture, and the corresponding marking officially confirms the quality of products at the

regional and state level, which in turn contributes to increasing the competitiveness of products and strengthening brand confidence among customers.

Table 2 - Organic producers and other operator types by other countries and Kazakhstan, 2019 (units)

Country	Producers'	Processors	Importers	Exporters
Austria	25 795	1 651	62	4
Brazil	17 508	10	-	7
Canada	5 791	1 719	-	-
Germany	31 713	15 441	1 723	1 208
France	41 632	16 651	545	-
India	1 149 371	1 452	-	669
Italy	69 317	20 087	472	962
USA	18 166	-	-	-
Kenya	37 295	22	15	32
Madagascar	32 367	217	-	155
Mexico	27 000	39	-	25
Republic of Korea	15 500	729	-	3
Ukraine	501	-	-	-
Russian Federation	40	26	-	8
Kazakhstan	63	22	7	14

Note-compiled by the author based on sources [lk. 9;10]

As for Kazakhstan, there are currently about 30 producers certified according to international standards, which account for more than 300 thousand hectares of land developed for the organic products production. At this time, this production is primarily focused on exports, but if the necessary conditions are created, Kazakhstan can also produce products for its own domestic market. Also, certification of organic production in Kazakhstan will give an impetus to the development of Kazakhstan's organic products production, improve the environmental balance, create conditions for improving the soil; increase the consumption of organic domestic products.

In Kazakhstan, the largest producer of organic products is the Akmola company LLP «Edelweis Invest». The farm grows certified organic products on 27 thousand hectares. In General, 277 thousand hectares were transferred to organic farming in Kazakhstan. The annual export of products from Kazakhstan to the European Union reaches about 10 million dollars. The main exporters are Akmola, Kostanay, Pavlodar, East Kazakhstan, Karaganda, and Almaty regions. Seeds, oilseeds and legumes are in great demand, with about 20 types of products in total.

In contrast, there is very little information on retail sales of organic agricultural products and it is outdated for some countries – it is presented over the past years. In Kazakhstan

it is known, that organic agricultural products worth 9 million euros were exported in 2009. In 2019 year more detailed information is provided in Austria - organic products were sold for 1 810 million euros, Canada - 3 119 million euros, China - 8 087 million euros, France - 9 139 million euros, etc. Also, the availability of information and its completeness about organic agricultural products also indicates how developed this industry is in the country and whether it is statistically recorded and monitored.

Thus, organic products in Kazakhstan's agriculture are at the stage of formation and there is a lot of work to be done on its further development. In developed countries, more than 80 different economic instruments are used to encourage the use of environmentally friendly technologies, including the development of organic products in agriculture. However, in Kazakhstan, proper mechanisms for supporting the best technologies are just beginning to develop. Among the key tools for the transition to «Green» Economy are:

- pricing consistent with the principles of sustainable development, including the rejection of inefficient subsidies, the assessment of natural resources in monetary terms and the introduction of taxes on things that harm the environment;
- public procurement policies that encourage the production of organic agricultural

products and the use of sustainable production methods;

- reform of "environmental" taxation systems, which involves shifting the focus from a tax on labor to a tax on pollution;

- increased public investment in sustainable infrastructure (including public transport, renewable energy, energy-efficient buildings) and natural capital to restore, maintain and, where possible, increase the volume of natural capital;

- targeted state support for research and development related to the creation of environmentally friendly technologies, the development of organic products in agriculture;

- social strategies designed to ensure consistency between social goals and existing or proposed economic strategies [11].

Conclusions.

1. Thus, in modern conditions and taking into account the current events, the transition of Kazakhstan to «Green» Economy Concept is quite significant and relevant and can lead the country to a new round of development, occupy other economy's niches. One of the main directions of this concept is organic production development in agriculture.

2. Today, the leaders in the production and export of organic products are the United States, Germany, France and Canada. The organic market in these countries has a pronounced export character. These countries have long developed and have a clear system of legal regulation relations in organic agriculture field, as well as officially registered certification bodies and established forms of interaction. Kazakhstan is just getting on this path of development and is forming all the necessary mechanisms for further development and regulation of production and sale of organic agricultural products.

3. There is no alternative to the development of agriculture under the organic scenario today. Intensive use of natural resources leads eventually to the destruction of nature. And this is the fundamental basis of the agricultural sector of the economy. The transition to organic farming methods is one of the steps towards «Green» Economy.

4. This can be extremely important for our country, where almost half of agricultural production is produced on private farms based on organic farming principles. Especially in the context of new global challenges and threats that Kazakhstan's agriculture has faced in recent years.

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**МЕТОДЫ ОРГАНИЗАЦИИ ПРИАУЛЬНЫХ ТЕРРИТОРИЙ В РАЗЛИЧНЫХ
ПРИРОДНО-СЕЛЬСКОХОЗЯЙСТВЕННЫХ ЗОНАХ РЕСПУБЛИКИ КАЗАХСТАН**

**ҚАЗАҚСТАН РЕСПУБЛИКАСЫНЫҢ ӨРТҮРЛІ ТАБИҒИ-АУЫЛ ШАРУАШЫЛЫҚ
АЙМАҚТАРЫНДА АУЫЛДЫҚ АУМАҚТАРДЫ ҰЙЫМДАСТЫРУ ӘДІСТЕРІ**

**METHODS OF ORGANIZING NEAR-AUL TERRITORIES IN VARIOUS NATURAL AND
AGRICULTURAL ZONES OF THE REPUBLIC OF KAZAKHSTAN**

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Аннотация. Обоснованы перспективные методы организации приаульных территорий для выпаса скота, находящегося в личных подсобных хозяйствах сельского населения, исследованы институциональные и организационно-экономические направления их эффективного использования. На примере типичных административных районов различных природно-сельскохозяйственных зон проведена оценка кормозапаса на участках вокруг населенных