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REGULATION OF THE AGRICULTURAL MARKET TO ENSURE FOOD SATURATION

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Annotation. *The main task of the agricultural sector of Kazakhstan is to provide its population with food at the expense of its own production. The Republic has a high potential for dynamic growth and development. In the last two decades (2000-2020), the agriculture of the republic has been steadily developing. Growth in individual products is observed from 30% to 2.7 times. The number of livestock has increased by 1.5 to 2.5 times, depending on its type. All this contributed to a significant improvement in the food supply of the country's population compared to 2000-2010. However, for a number of products, especially potatoes, vegetables and fruits, milk, poultry meat and eggs, it was not possible to achieve or even approach scientifically sound nutrition standards. The share of imports for individual products remains high and exceeds the threshold level of 20% of imports in the capacity of the domestic market. The main reason is the insufficient level of agricultural production. Crop yields and livestock productivity remain low. Low labor productivity in the industry (7-8 thousand dollars) compared to developed countries (50-60 thousand dollars).*

Keywords: *agro-industrial complex, economy, development, food security, product quality, food, agriculture.*

The main reasons for this situation are: reduction of soil fertility. Annual losses of humus in agriculture in Kazakhstan amount to 0.5-1.4 t/ha; poor material and technical equipment of commodity producers (70% of agricultural machinery is subject to replacement), which leads to massive technological disruptions. The fragmentation and small-scale production of agricultural subjects, their low payment capacity; insufficient degree of processing of agricultural products affects; the relatively low level of state support for the agricultural sector (4.5-5% of the value of gross agricultural output, at the same time, according to WTO rules, 8.5% is allowed for the Republic of Kazakhstan). The development of agricultural cooperation and its financial support from the state are lagging behind. Together, all this determines the insufficient level of food security in Kazakhstan and causes the need for its assessment and development of improvement measures, which reflects the relevance of this article [1].

Main provisions of the article.

In developed countries with a high standard of living, the demand for food is quite high, and therefore the elasticity of demand for food prices is low.

In countries with a lower standard of living for people with low incomes, the elasticity of demand for the price of certain types of food, for example, meat, is quite high.

Despite the increase in prices for bakery and pasta products, their share in the total demand for food in Kazakhstan has increased, as prices for meat and meat products have also



increased. In this regard, it is necessary to comprehensively address the issues of food security by improving the agricultural market.

Introduction. In the Message of the Head of State K.-Zh. Tokayev to the people of Kazakhstan "Kazakhstan in a new reality: a time for action" it is noted: "It is impossible to create a competitive economy without a developed agriculture." The problems of food security today are global in nature. The problems of food production, distribution and trade are the basis of agri-food policy of any state. In recent years, the agricultural sector of Kazakhstan has had positive dynamics, as evidenced by the data of international experts [2].

According to the international rating conducted by the British magazine "The Economist" (results of 2020), Kazakhstan ranked 32nd out of 113 countries in terms of comprehensive indicators of food security (2019 - 48th place). Among the CIS countries, this is the third place after Belarus (23rd place) and Russia (24th place). For the Republic of Kazakhstan, the achieved level in the ranking among developed countries is the result of the sustainable development of the industry in recent years [3].

Methodology. The main research methods are analytical, which allows to study the processes of development of agro-industrial production in dynamics; comparative analysis to determine the level of growth or decrease in production by year, per capita. Included in the analysis is a comparison of actual data with standards, indicators of the effective use of agricultural resources and their role in increasing production volumes, in particular, in the use of land resources; an economic and statistical method. Statistical data for 2000, 2015-2020 were used. according to the production of the main types of agricultural products in Kazakhstan, the population, the level of consumption of products per capita, the availability of agricultural machinery, data on export and import of agricultural products, data on the volume of financing of agricultural science. The causal method reveals the main reasons for the low productivity of agricultural sectors, in particular crop yields: low soil fertility, a significant number of small-scale and small-earth agricultural formations, insufficient development of seed production and lack of agricultural machinery

Results. So, only in 2015-2020 yy. growth by types of agricultural products ranged from 7.5% to 2.5 times. The production of vegetables (by 28.8%), oilseeds (by 65.2%), sugar beet (by 48.9%), fruits (by 65.6%), meat (by 25.3%) has grown especially significantly over the specified period (Table 1). At the same time, the level of 1990 has not been reached for certain types of products (grain, sugar beet, meat), which is a growth potential for the near future.

Table 1. - Production of the main types of agricultural products in Kazakhstan, thousand tons.

Name	Actual production			2020y. in % to:	
	1990y.	2015y.	2020y.	1990y.	2015y.
Cereals	28 487,0	18 672,8	20 065,3	70,4	107,5
Potato	2 324,0	3 521,1	4 006,7	172,4	113,8
Vegetables	1 136,0	3 564,9	4 590,9	4,0 times	128,8
Melon crops	302,0	2 087,6	2 425,0	8,0 times	116,2
Oilseeds	229,8	1 547,5	2 556,5	11 times	165,2
including sunflower	126,0	534,0	844,2	6,7 times	158,1
Sugar beet	1 044,0	174,1	466,3	44,7	248,9
Fruit	301,0	216,2	347,2	115,3	160,6
Meat	1 559,6	931,0	1 166,6	74,8	125,3
Milk	5 641,6	5 122,4	6 051,4	107,3	118,1
Egg, million pcs.	4 135,1	4 736,9	5 065,8	122,5	106,9

Note: compiled by the authors.



The growth of production in recent years has occurred both due to the economic regulation of the industry and the effective involvement of land resources in agricultural production.

In 2001-2020, the area of farmland increased by 14.4 million hectares as a result of the involvement of reserve lands in agricultural use. Arable land increased by 5.7 million hectares, irrigated arable land – by 300 thousand hectares, pastures - by 13.8 million hectares. The total sown area in the republic in 2020 amounted to 21.8 million hectares, compared with 16.2 million hectares in 2000. In its structure, 70.5% is occupied by cereals, oilseeds – 11.3%, fodder - 15.5% [4].

The involvement of additional areas of farmland in economic turnover, the growth of livestock contributed to an increase in agricultural production per capita and improved food security of the country's population, as evidenced by the data in Table 2.

Table 2. - Production of the main types of agricultural products per capita in Kazakhstan (kg. per capita).

Name	Actually			2020r. in % to:	
	1990y.	2015y.	2020y.	1990y.	2015y.
Seed	1 702,0	1 072,2	1 076,9	63,3	100,4
Potato	139,0	202,2	215,0	154,7	106,3
Vegetables and melons	86,0	324,5	376,5	4,4 times	116,0
Oilseeds	13,7	88,8	137,2	10 times	154,5
Sugar beet	62,0	10,0	25,0	40,3	250,0
Fruits and berries	18,0	12,4	18,6	103,3	150,0
Meat	92,0	53,4	62,6	68,0	117,2
Milk	337,0	297,6	324,8	96,4	109,2
Egg	250,0	272,0	272,0	108,8	100,0

Note: compiled by the authors.

However, the achieved level of production for certain types of products does not allow the population to consume them according to the standards defined by the Ministry of National Economy of the Republic of Kazakhstan (Table 3).

Table 3. - Food consumption in Kazakhstan (kg. per capita).

Note: compiled by the authors.

Products	1990y.	2016y.	2020y.	Ministry of National Economy of the Republic of Kazakhstan	Consumption in % to the standard		
					1990y.	2016y.	2020y.
Bread products and cereals	148,0	130,7	140,3	109	135,8	119,9	128,7
Potato	86,0	110,9	114,3	100	86,0	110,9	114,3
Vegetables and melons	76,0	90,2	86,6	149	51,0	60,5	58,1
Fruit	23,0	64,6	63,5	132	17,4	48,9	48,1
Vegetable oil	11,2	19,5	17,3	12	93,3	162,5	147,2
Sugar and confectionery	38,0	40,7	43,0	33	115,2	123,3	130,3
Meat and meat products	73,0	68,3	74,4	78,4	93,1	87,1	94,9
Milk and dairy products	311,0	238,9	238,6	301	103,3	79,4	79,3
Egg	225,0	237,0	263,0	265	84,9	89,4	99,3



This is especially true for potatoes, vegetables, fruits, milk and eggs. At the same time, bread, vegetable oil, sugar, i.e. glucose-forming products are excessively consumed, which clearly violates the structure of nutrition and leads to excess human weight and various diseases. The level of food security is determined by the share of imported products in the market capacity. The greatest dependence on the external market for: fruits – 67.9% in the structure of the market capacity, poultry meat - 49.9%, vegetable oil - 39.0%, sugar - 38.9% (taking into account own production and imported raw materials). In addition, canned products occupy a large share of imports in the market capacity (up to 96%).

Thus, the share of imports for many products remains high and exceeds the threshold level of 20% of imports in the capacity of the domestic market.

The capacity of the food market and ensuring food security is also affected by the level of exports of products. In Kazakhstan, the basis of agricultural exports is grain and grain products. In recent years, the export of these products has been at the level of 7-8 million tons. Grain export resources can be significantly higher (up to 10-12 million tons), especially to the countries of Central Asia. However, there are both internal and external problems that hinder exports. Internal problems include: a low level of provision of grain storage capacities (capacities only provide grain storage in years with average yields); insufficient elaboration of the mechanism for regulating the relationship of subjects in the grain market (small and medium-sized grain producers do not have access to the production and logistics infrastructure of grain farming and cannot independently enter the foreign market).

There is also an obvious lack of a unified pricing policy and high domestic prices for Kazakh grain that do not allow the formation of competitive export prices for flour; weak organization of transport logistics for grain transportation (shortage of grain wagons, etc.), high railway tariffs for grain supply; inefficient policy in the field of diversification of sown areas of grain crops.

Along with internal problems in the foreign market, there are factors constraining the export of Kazakh grain and grain products. Currently, there is fierce competition for the markets to which Kazakh wheat is exported: in the countries of Central Asia (Turkmenistan, Kyrgyzstan, Tajikistan, Uzbekistan, Afghanistan), where wheat and flour from Kazakhstan dominated in the volume of their imports, products from other countries (Russia, Pakistan) have now begun to arrive; in Azerbaijan, Kazakh wheat competes with Russian; in Iran - with products from various manufacturing countries, including Canadian, European. In addition, the purchasing countries are introducing various economic measures. Thus, a fierce competition is developing in the foreign wheat market between the EAEU member states and other states [5].

An important place in the export of agricultural products belongs to meat. Today Kazakhstan produces more than 1 million tons of meat and has a great export potential. The land resources of Kazakhstan have real opportunities to double the number of livestock and its productivity. The needs of the livestock market are huge both within the country and in a number of states.

Consequently, the agro-industrial complex of the country, having a huge potential, has a great prospect of development and, accordingly, the possibility of entering foreign markets. The export of agricultural products stimulates the production of domestic raw materials, increases the load of processing enterprises. Well-established export channels can become a factor that, eventually, will raise domestic agriculture and processing to a new level.

In this direction, in recent years, work has been intensified on the development of meat animal husbandry, feed production, expansion of acreage of fodder crops, management of



pasture resources, increase of state support measures, improvement of the veterinary organization system and ensuring the safety of livestock products.

Currently, the volume of its financing in Kazakhstan is 0.16% of gross agricultural output. In accordance with the State Program for the development of agriculture for 2017-2021, it is planned to increase the financing of agricultural science in 2030 to 1% of total agricultural production, including 0.5% in 2021. For comparison, in 1991, the amount of funding for the science of the agricultural sector of the republic was 1.2% of gross agricultural output. Also, according to the recommendations of the International Academic Council, the share of spending on science among developing countries should be about 1-1.5% of GDP, and in developed countries it is from 2 to 4.5% of GDP.

The implementation of the above measures, as well as the creation of an innovation and technological system, together with measures of state support, will increase production volumes in the industry to an appropriate level that ensures the country's food security.

Conclusions. The agricultural sector is the leading sector of Kazakhstan's economy, despite the fact that it occupies only 8% of the GDP structure. But this industry ensures the vital activity of the entire population of the country (19 million people). In the last decade, agro-industrial production has been steadily developing. In 2015-2020, the production of agricultural products increased by 7.5% to 2.5 times in certain sectors, which ultimately contributed to an increase in the level of food security of the country's population.

At the same time, the achieved level of production does not yet allow for a number of types of food to be consumed according to scientifically sound standards. These products include: potatoes, vegetables and melons, fruits, milk and eggs. For some products, excessive consumption is observed, that is, significantly higher than normal. These include: bread, vegetable oil, sugar, that is, containing a large amount of glucose, which leads to a violation of the quality of the diet and worsens the health of the population.

The level of food security is largely determined by both production volumes, exports of products, and import volumes. There is a close interdependence between these indicators. High production volumes lead to full or close to full provision of food needs. Excess production determines the size of exports, and its insufficient or low level increases the import of imported products to the domestic market of the state, and it becomes import-dependent. In Kazakhstan, export-oriented agricultural products are: grain, flour, certain types of meat (beef, lamb). The rest of the production is focused on the domestic market. In the structure of nutrition, a large share of imports in fruits (67.9% in the structure of market capacity), poultry meat (49.9%), vegetable oil (39.0%), sugar (38.9%).

Kazakhstan has large amounts of farmland, especially pastures. Currently, there are 100.9 million hectares of farmland in use by agricultural producers, including 19.6 million hectares in the all territories. At the same time, about 90 million hectares of pastures belong to reserve lands, which represent a large reserve for the development of animal husbandry and a 2-fold increase in meat production for domestic consumption and export.

The successful development of the agricultural sector is largely determined by its material and technical base. Currently, the number of agricultural machinery in Kazakhstan is much lower than the need for it. Compared to 1991. It has decreased by an average of 2.5 times by species, besides its wear, according to experts, is more than 70%. Therefore, for the development of the agricultural sector, it is necessary to take appropriate measures as soon as possible in order to strengthen the technical base of the industry. As world experience shows, service cooperatives should be created in this area, rental, rental and leasing of equipment should be developed.



To increase the competitiveness of agricultural production, it is necessary to increase the efficiency of scientific research, to provide scientific institutions with sufficient funding. According to world experience, its level should be at least 1-1.5% of the value of gross agricultural output.

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АЗЫҚ-ТҮЛІКПЕН МОЛЫҚТЫРУДЫ ҚАМТАМАСЫЗ ЕТУ ҮШІН АГРАРЛЫҚ НАРЫҚТЫ РЕТТЕУ

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Түйін. Жұмыста елді азық-түлікпен қамтамасыз ету үшін Қазақстан Республикасының аграрлық нарығын жүйелеу мен жетілдірудің негізгі бағыттары қаралды. Мақалада Қазақстан Республикасының Стратегиялық жоспарлау және реформалар жөніндегі агенттігі Ұлттық статистика бюросының деректері негізінде Санаттар разрядында ұлттық нарықтың азық-түлікпен қамтамасыз етілуіне талдау беріледі.



Авторлар Қазақстанның аграрлық секторының қазіргі жай-күйіне, оның проблемаларын анықтауға және жаһандану процестері жағдайында оны дамыту жөнінде ұсыныстар әзірлеуге өз көзқарасын ұсынады. Жұмыста сауда мен басқа елдермен экономикалық байланыстардың кеңеюі жағдайында аграрлық секторға сыртқы факторлар көбірек әсер етеді, бұл тұрақсыздықтың өсуіне әкеледі.

Түйін сөздер: агроөнеркәсіптік кешен, экономика, даму, азық-түлік қауіпсіздігі, өнім сапасы, азық-түлік, ауыл шаруашылығы.

РЕГУЛИРОВАНИЕ АГРАРНОГО РЫНКА ДЛЯ ОБЕСПЕЧЕНИЯ ПРОДОВОЛЬСТВЕННОГО НАСЫЩЕНИЯ

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Резюме. В работе рассмотрены основные направления систематизации и совершенствования аграрного рынка Республики Казахстан для продовольственного обеспечения страны. В статье даётся анализ обеспеченности национального рынка продовольствием в разряде категорий на основе данных Бюро национальной статистики Агентства по стратегическому планированию и реформам Республики Казахстан. Авторами предлагается свое видение на современное состояние аграрного сектора Казахстана, выявление его проблем и разработка предложений по его развитию в условиях глобализационных процессов. В работе охарактеризовано то, что в условиях расширения торговли и экономических связей с другими странами аграрный сектор все больше подвергается влиянию внешних факторов, что ведет к росту нестабильности.

Ключевые слова: агропромышленный комплекс, экономика, развитие, продовольственная безопасность, качество продукции, продовольствие, сельское хозяйство.

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