

FEATURES OF THE REPRODUCTION PROCESS
IN THE AGRARIAN SECTOR OF THE AKMOLA REGION

АҚМОЛА ОБЛЫСЫНЫҢ АГРАРЛЫҚ СЕКТОРЫНДАҒЫ
ҰДАЙЫ ӨНДІРУ ПРОЦЕСІНІҢ ЕРЕКШЕЛІКТЕРІ

ОСОБЕННОСТИ ВОСПРОИЗВОДСТВЕННОГО ПРОЦЕССА
В АГРАРНОМ СЕКТОРЕ АКМОЛИНСКОЙ ОБЛАСТИ

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Abstract. The features of reproduction process in agricultural sector of Akmola region are shown. Based on the analysis of the state of industry, the tendencies of its development over the last decade have been determined. The estimation of the level of economic development and reproduction processes in the context of Akmola region in 2007-2017 is presented, taking into account the indicator (profitability). The absence of favorable conditions for expanded reproduction in agricultural sector is revealed. The need for government support measures aimed to increase the profitability of agricultural enterprises is shown, which will help improve the situation in agricultural sector. An assessment of the limits of reproduction types has been carried out and proposals have been developed that contribute to the expansion of reproduction process in agro-industrial production of the region.

Аңдатпа. Ақмола облысының аграрлық секторындағы ұдайы өндіріс үрдісінің ерекшеліктері көрсетілген. Саланың жай-күйін талдау негізінде соңғы онжылдық ішінде оның даму үрдістері айқындалды. Көрсеткіштерді (рентабельділік) есепке ала отырып, 2007-2017 жылдары Ақмола облысының аудандары бойынша экономикалық даму және ұдайы өндіріс үдерістерінің деңгейіне баға берілді. Аграрлық саладағы ұдайы өндірісті кеңейту үшін қолайлы жағдайлардың жоқтығы анықталды. Ауыл шаруашылығы кәсіпорындарының табыстылығын арттыру мақсатында мемлекеттік қолдау шараларын қабылдау қажеттілігі көрсетілді, бұл аграрлық саладағы жағдайды жақсартуға ықпал етеді. Ұдайы өндіру түрлерінің шекараларын бағалау жүргізілді және облыстың агроөнеркәсіптік өндірісіндегі ұдайы өндіру процесін кеңейтуге ықпал ететін ұсыныстар әзірленді.

Аннотация. Показаны особенности воспроизводственного процесса в аграрном секторе Акмолинской области. На основе анализа состояния отрасли определены тенденции ее развития в течении последнего десятилетия. Дана оценка уровня экономического развития и воспроизводственных процессов в разрезе районов Акмолинской области за 2007-2017 гг.,

с учетом показателя (рентабельность). Выявлено отсутствие благоприятных условий для расширенного воспроизводства в аграрной отрасли. Показана необходимость принятия мер государственной поддержки в целях повышения доходности сельскохозяйственных предприятий, что будет способствовать улучшению ситуации в аграрной сфере. Проведена оценка границ типов воспроизводства и разработаны предложения, способствующие расширению воспроизводственного процесса в агропромышленном производстве области.

Key words: agricultural sector, agricultural enterprises, reproduction process, economic development, public support, profitability, revenue.

Кілттік сөздер: аграрлық сектор, ауыл шаруашылығы кәсіпорындары, ұдайы өндіріс процесі, экономикалық даму, мемлекеттік қолдау, рентабельділік, табыстылық.

Ключевые слова: аграрный сектор, сельскохозяйственные предприятия, воспроизводственный процесс, экономическое развитие, государственная поддержка, рентабельность, доходность.

Introduction. The economy of Akmola region traditionally has a marked agricultural orientation and rich potential for the development of agriculture.

But despite the fact that in recent years there has been a steady growth in agricultural production and achieved a stable increase in gross agricultural output, the problem of sustainable development of agriculture continues to be relevant. Therefore, it is of great importance to determine ways to ensure the expanded reproduction in the agricultural sector in such a large agricultural region of the country as Akmola region.

For Kazakhstan, the improvement of investment policy in the agro-industrial complex is an important task, taking into account the conditions and quality of the natural potential of agricultural production and development of rural areas, as well as the achievement of the goals of food supply for domestic and foreign markets [1].

The growth of competitiveness of the agricultural sector of the economy is directly related to the expanded reproduction of basic resources of agriculture. Therefore, it is necessary to create an effective production capacity using modern technologies and equipment, as well as the formation of acceptable conditions for its reproduction [2].

The aim of this work is to determine the characteristics of the reproduction process in the agricultural sector of the region, the assessment of the limits of reproduction types and the development of proposals to create conditions for expanded reproduction in the agricultural sector.

The objectives of the research included the study of the development dynamics of the agricultural sector over the past decade and the assessment of their compliance with the conditions of expanded reproduction, also the assessment of the level of economic devel-

opment and reproduction processes according to the districts of Akmola region for the period 2007-2017.

Material and methods of the research.

The study was carried out on the basis of information reflecting the state of the agricultural sector in the country and in Akmola region.

The object of the research is the level and conditions of reproduction of the resource potential of the agricultural sector of Akmola region. In the paper the dynamics of reproduction indicators of the resource potential and the development of agriculture were analyzed.

The grouping of agricultural enterprises of Akmola region by types of reproduction was carried out on the basis of the recommendations "Economic regulation of reproductive relations in agro-industrial formations" [3], according to which the type of reproduction in agricultural enterprises is carried out by the level of cost recovery (profitability). Enterprises with a reduced type of reproduction include agricultural enterprises with profitability up to 15%, simple - from 15.1 to 30% and extended - more than 30%.

The information base of the research had the materials of the Committee on Statistics of the Ministry of National Economy of the Republic of Kazakhstan. As initial data, the indicators of the industry development for the period 2007-2017 were used.

The theoretical and methodological basis of the research consisted of the scientific works of leading domestic and foreign agricultural economists in the field of agriculture.

Results and their discussion. Agriculture is the most important sector of Akmola region from which the standard of living of the villagers, self-sufficiency of the region with basic food depends. The analysis of the regional agriculture conditions in 2007-2017 revealed positive trends in its development (table 1).

[illegible]

Indicator	Year					2017 by 2007, %
	2007	2014	2015	2016	2017	
Production of gross agricultural output, mln. KZT						
In all categories of farms	127333,6	238622,6	290893,2	348198,5	377261	296,3
In agricultural enter-prises	68760	126343,4	147604,9	201245,3	207768,3	302,2
Production in kind						
Grain, thous.t.	4456,1	4502,6	4557,4	5023,7	4822,3	108,2
Meat in live weight, thous.t.	96,6	82,4	90,8	96,7	103,37	107
Information source: Committee on Statistics of the Ministry of National Economy of the Republic of Kazakhstan						

Among the positive trends in modern conditions it should be noticed the increase in per capita consumption of agricultural products (table 2).

Product name	Physiological norms of food consumption, kg [4]	2007 y.			2016 y.		
		RK, kg	Akmola region		RK, kg	Akmola region	
			Kg	in % to RK		kg	in % to RK
Bread and cereal products	109	122,4	113,0	92,3	130,8	127,2	97,2
Meat and meat products	78,4	49,2	47,0	95,5	73,2	70,8	96,7
Fish and Seafood	14	9,6	7,7	80,2	10,8	9,6	88,9
Milk and dairy products	301	207,6	198,3	95,5	235,2	261,6	111,2
Egg, pieces (pcs)	265	121,2	139,8	115,3	164,4	168	102,1
Fruit	132	43,2	31,5	72,9	61,2	48	78,4
Vegetables	149	73,2	55,5	75,8	88,8	72	81,1
Potatoes	100	45,6	47,2	103,5	48	48	100
Sugar, honey, jam, chocolate, etc.	33	31,6	31,6	100	40,8	39,6	97,1
Information source: Committee on Statistics of the Ministry of National Economy of the Republic of Kazakhstan							

Despite the positive trends in the development of the agricultural sector of the region, there is a set of negative factors impeding its further effective development.

The agricultural sector of the economy acts as the foundation of food security of the state as it has a certain influence on its socio-economic situation.

Nowadays, the agro-industrial complex of the country is in a difficult financial and economic situation: the industry has not overcome the loss yet, the production cost remains high, the main production assets are worn out, there is an acute shortage of working capital, and there are no necessary conditions for technological upgrade of production capacities [5].

State economic regulation of the agricultural sector is aimed at solving the problems of food security of the country by improving the efficiency and sustainability of the reproduction processes of agricultural products [6].

There are different approaches to determine the nature of reproduction of basic production assets. Some sources claim that this is a process of reconstruction of the outgone factors of production [7, 8].

At the same time there is another point of view according to which the reproduction of basic production assets is understood as a continuous process of investment activities to replace and update them by acquiring new ones and its reconstruction, technical re-equipment, modernization and complete repairs of existing fixed assets [9].

Table 3 presents the results of grouping the districts of Akmola region by types of reproduction in agricultural enterprises.

Table 3 - Grouping of districts by types of reproduction in agricultural enterprises of Akmola region

Type of reproduction, district	Pro-duction profitability, %	Production efficien-cy, thous. KZT/100 hectares of farm-land		Type of reproduction, district	Pro-duction profitability, %	Production efficiency, thous. KZT/100 hec-tares of farmland	
		Profit	Cost price			Profit	Cost price
2007-2016 yy.				2017 y.			
Reduced (0-15%)	14,2	5463,5	38502	Reduced (0-15%)	6,5	4281,4	66275,6
Shortandy	14,2	5463,5	38502,4	Shortandy	6,5	4281,4	66275,6
Simple (15,1-30 %)	22,2	7179,4	32366	Simple (15,1-30 %)	26,3	20300,7	77343,6
Burabay	20,9	10701	51229,4	Astrakhan	29,5	28267	95723,1
Ereymantau	29,5	1323,7	4482,1	Atbasar	28	35422,4	126668,8
Zerenda	16,8	6455,6	38490,1	Ereymantau	26,4	1378,7	5218,9
Tselinograd	29	10237	35260,6	Zhaksy	21,8	35306,1	162037,6
Extended(more than 30%)	45,1	18008	39912	Korgalzhyn	26,3	4937,7	18802,6
Akkol	36,6	5189,8	14177,7	Tselinograd	29,7	16492,4	55610,4
Arshaly	44,7	7684,2	17175,5	Extended(more than 30 %)	45,8	29259,3	63824,1
Astrakhan	42,2	18656	44236,3	Akkol	40,1	8208,5	20478,1
Atbasar	43,2	23733	54903,6	Arshaly	31,2	9346,7	29982,2
Birzhan Sal	45,1	8214,9	18230,5	Birzhan Sal	37,5	10981,7	29313,6
Bulandy	61,3	17859	29155,3	Bulandy	51,7	31944,6	61810,5
Egindykol	48,2	16658	34583,3	Burabay	41,5	15845,9	38145,8
Yessil	39,8	24133	60694,7	Egindykol	44,7	31819,4	71245,5
Zhaksy	32,1	26710	83213,4	Yessil	55,2	60594,6	109751,8
Zharkain	60,2	40424	67103,5	Zharkain	45,4	52830,6	116303,7
Korgalzhyn	31,4	3034,4	9664,3	Zerenda	31,4	26970,5	85801,2
Sandyktau	52	23803	45807,6	Sandyktau	58,4	44050,3	75408,1
Total	38,6	252227	653536	Total	36	425124	1182281
Information source: Committee on Statistics of the Ministry of National Economy of the Republic of Kazakhstan							

During the period 2007-2016 the profitability of crop production in the region decreased from 38.6 to 36%. The results of the grouping of districts of Akmola region indicate

that the reduced type of reproduction in agriculture in average for 2007-2016 and in 2017 was observed only in one district of the region – Shortandy - 14.2 and 6.5%, respectively. In

2007-2016 with profitability of 14.2%, the profit per 100 hectares of land amounted to 5463.45 thousand KZT, and in 2017 with profitability of 6.5% - 4281.36 thousand KZT.

A simple type of reproduction on average for 2007-2016 was peculiar to 4 districts of the region: Burabay, Ereymentau, Zerenda and Tselinograd. In 2017, the number of districts for which this type of reproduction was typical increased to six representing 35% of the total number of districts. It should be noted that for two districts of the region a simple type of reproduction is characteristic during the entire

analyzed period. They are Ereymentau and Tselinograd districts.

An extended type of reproduction on average for a ten-year period was distinguished by 12 districts or about 71% of their total number. In 2017 there were 10 such districts with the profitability level of 45.84% and profit per 100 hectares of agricultural lands - 29259.28 thousand KZT.

Thus, according to the generally accepted methods, 7 out of 17 existing districts of the region do not have conditions for extended reproduction and modernization of the industry in the future (table 4).

Table 4 - Distribution of districts of Akmola region by types of reproduction

Type of reproduction	2007-2016 yy.		2017 y.	
	Number of districts		Number of districts	
	Unit	%	Unit	%
Reduced (0-15 %)	1	5,9	1	5,9
Simple (15,1-30 %)	4	23,5	6	35,3
Extended (more than 30 %)	12	70,6	10	58,8
Note - calculated by the author				

The grouping of districts of Akmola region by types of reproduction showed that during the analyzed period the number of districts characterized by extended reproduction decreased by 11.8 %. This indicates the necessity to take measures to improve the reproduction of fixed assets in the region.

The crisis of investment activity that has emerged in recent years has become the main factor hindering sustainable development and extended reproduction in the agricultural sector.

It should be recognized that the material base of agriculture is developing unevenly and slowly. Since the mid-2000s the accumulated capital has been actively "eaten".

According to Polukhin A. the assessment of technical equipment of agricultural producers in Kazakhstan allows us to consider this country as an underdeveloped market for the EAEU countries producing agricultural machinery, namely Russia and Belarus. According to statistics of the Ministry of Agriculture of Kazakhstan at the beginning of 2015 the wear of the agricultural machinery park in the country was about 80 %, and the average age of about 70% of combine harvesters and tractors was 13-18 years. From 153.1 thousand tractors, 89% are subject to write-off and 62% from 45.3 thousand combine harvesters. However, the agricultural machinery market in Kazakhstan is quite capacious: over the past 5 years agricultural enterprises have purchased 7238 tractors, 5142

combine harvesters and 1340 sowing machines but these modernization rates are insufficient to meet the demand for machinery [10].

Machinery and technology are becoming out of date, machines and equipment are worn out but most enterprises do not take measures for the effective reproduction of fixed assets. Compensation of depreciation of fixed assets of agricultural enterprises is carried out mainly due to investments in current and major repairs, the moment of withdrawal from production of worn-out labor means is artificially delayed and the conditions to update production assets on a qualitatively new basis are not provided.

Before the reforms the agro-industrial sectors actively increased their material and technical base, at the end of the 1980s of the last century capital investments in the amount of 32% of the volume of the national economy were allocated for the development of the agro-industrial complex, the situation changed dramatically after the reformation of the agricultural sector. The share of agriculture, forestry and fishery in fixed capital investment decreased; in 2013 it amounted to 2.3 %. As a result, the first sphere of the agro-industrial complex, that is the domestic agricultural machinery has not been developed to meet the needs of agriculture machinery and equipment [look again 5].

The stated facts speak about the necessity to develop an economic mechanism that

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would provide a solution to existing problems in the agricultural sector of the region's economy. The basic elements of the economic mechanism include prices, taxes, and loans, appropriate policies for their formation as well as state support and regulation.

The root cause of the crisis in domestic agriculture was mainly the fact that at the initial stage of market reforms food prices grew faster than the money income of the popula-

tion. As a result, the growth of prices for food and agricultural raw materials slowed and the growth of prices for the production means supplied to agricultural producers began to outrun them.

Fluctuations in prices for agricultural products are characterized not only by an increase in comparison with previous years but also by a decrease (table 5).

Table 5 - Sales price index for agricultural products and products of industrial and technical purposes and services for agricultural enterprises in percentage terms to the previous year (in Akmola region), %

Name of indicators	Years				
	2007	2014	2015	2016	2017
Realization of products by agricultural enterprises					
Agricultural products in general	125,6	96,9	112,0	111,2	101,9
including crop production	134,5	92,9	116,8	111,7	100,8
among them:	134,7	92,7	117,5	111,8	100,9
- grain;					
- oil crop;	85,2	73,9	86,1	182,2	97,3
- potatoes;	117,2	112,8	87,8	92,1	108,1
- vegetables;	139,4	87,2	115,4	110,3	87,4
livestock product	108,2	104,6	102	110,2	102,7
among them:	105,7	102,5	103,4	109,2	109,6
- cattle and poultry;					
- milk;	112,6	109,4	101,4	105,5	107,6
- egg;	120,1	97,1	87,4	148,7	100,8
Main types of industrial products and services acquired by agricultural companies					
Resources forming basic production assets	110,9	98,9	106,0	130,9	104,5
Resources forming circulating production assets	130,4	99,0	94,9	113,1	110,9
Electricity (for production needs)	125	103,2	83,0	120,2	103,2
Fuel	126,1	102,5	93,5	103,4	100,4
Information source: Committee on Statistics of the Ministry of National Economy of the Republic of Kazakhstan					

In spite of the price indices of industrial and agricultural producers have recently begun to converge, generally, the average prices of industrial goods are growing faster than those of agricultural products. This means that the possibility of updating the material and technical base of agricultural enterprises is constantly decreasing.

Thus, the current level of prices and price policy do not meet the task of creating sustainable and efficient agricultural production, creating a civilized market infrastructure, improving working and living conditions of the rural population.

First of all, the continuing disparity in prices for agricultural products and industrial means of production is holding back the solution to these problems. This makes the extended reproduction almost impossible.

In our opinion in order to improve the pricing policy in agriculture it is necessary to take the following measures:

- the improvement of price regulation on the basis of collateral, accounting and parity prices, as well as their constant monitoring;
- the development of exchange and wholesale trade of food and agricultural products that will lead to the expansion of free choice for agricultural enterprises;
- the increase in customs tariffs for products the import of which has a negative impact on domestic production.

Certainly, in modern conditions for the implementation of the above-mentioned directions of price policy improvement there requires a significant increase in state support.

Conclusions.

1. Thus, the situation and level of development of the production potential of the agricultural sector of Akmola region are insufficient for the sustainable development of the industry and the maintenance of the extended reproduction. Only 10 out of 17 districts of the region have favourable conditions for the extended reproduction.

2. Favourable conditions for the extended reproduction in the agricultural sector are directly related to the financial situation of agricultural enterprises. After all, only financially stable profitable enterprises can accumulate their own investment resources for the reproduction of the material and technical base.

3. Financial resource shortage and low profitability do not contribute to investment activity; do not give the opportunity to carry out a deep modernization of agriculture. Therefore, the development and increase of the efficiency of reproduction processes in the agricultural sector is possible only when creating conditions for increasing the profitability of agricultural enterprises.

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