

**FEATURES OF THE TERRITORIAL ORGANIZATION
OF PRODUCTION IN THE AGRICULTURE OF THE REPUBLIC
OF KAZAKHSTAN**

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Abstract: *The analysis of the current state and problems of the development of agriculture, the share of agriculture in gross domestic product of the country and the ratio of industries in gross agricultural output are analyzed. The advantages of rational allocation and specialization of agricultural production, as well as the criteria for division into industries are considered. The analysis of territorial specialization of agriculture of the Republic of Kazakhstan is carried out, recommendations for its optimization are given.*

Key words: *agriculture, food security, territorial division of labor, territorial specialization, optimization.*

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The solution of the problem of food security of the country and its regions is closely connected with the improvement of the territorial organization of agriculture, progressive changes in its structure, obligatory consideration of the natural, ecological and socio-economic factors in the development of agricultural production. The vastness of the territory of Kazakhstan and its regions influences the territorial differentiation of agricultural production, its results and, as a consequence, the uneven distribution of food.

All this requires a comprehensive analysis of the types of agricultural use of lands, agricultural zoning and determination of opportunities for their optimization. It is no accident that the issues of territorial differentiation of agriculture are the object of research of both domestic and foreign scientists [1, 2].

The formation and development of the agrarian sector of the region largely depends on the specifics of the conditions and factors of agricultural production. The more diverse and geographically more differentiated the natural and economic conditions of the region, the more the structure of the regional agricultural system and the degree of its participation in the territorial division of labor are more complex.

The effectiveness of the functioning of the agrarian industrial complex of the republic substantially depends on its rational location, specialization and a combination of industries.

The share of agriculture in gross domestic product of the country is about 4.2% and can not change significantly in the near and long term. It is caused by the growth of amounts in the oil-extracting industries, the limited capacity of the domestic food market, the instability of foreign agricultural markets, the weak competitiveness of the Kazakhstan products due to high transport costs and low level of agrarian technologies.

In general, the ratio of crop production and livestock in the republican gross production of agriculture is 58.5 and 41.5%. In general, crop production is developed in the North-Kazakhstan and South-Kazakhstan regions of the country, and animal husbandry - in the West Kazakhstan region of the country.

Agricultural enterprises, specializing in the production of different types of products, occupy a certain place in the public division of labor. Among them farms with the primary production of one or another type of products, including grain, meat, dairy and etc. are formed

The advantage of rational distribution and specialization of agricultural production is the possibility of the most complete use, first of all, of favorable natural conditions and, on the basis of them, the creation of economic opportunities to increase agricultural production in accordance with market demands and its price reduction [3,4].

The allocation of industries in an agricultural enterprise is connected with the mechanization and automation of production, the introduction of new technologies, forms of organization of labor and production.

At the level of the agricultural enterprise, the following criteria are used as the basis for the division into industries:

- the type and purpose of the products or services;
- features of the means of production (objects and tools);
- technology and production organization;
- professional qualities of workers [5].

On the economic importance commodity agricultural industries in enterprises are divided into basic and additional. Industries which determine specialization of the enterprise and have the greatest share in its marketable output are the main. The largest main industry is called main. Additional industries are intended for the production of additional marketable product. They are created with the purpose of providing favorable conditions for the development of the main industries and increasing of the enterprise income [6].

It is necessary to consider the specialization of regions, which determines the production direction of farms. The production direction most often is determined by the structure of commodity output over the last 4 years. Level and coefficient of specialization are the main indicators of specialization. We will calculate the coefficient of specialization according to the formula:

$$C_s = 100 / W_i (2i-1),$$

where: W_i - the specific weight of the commodity output of separate industries, %;

i - the serial number of the type of commodity output in the ranked row on the specific weight in the amount of sales proceeds, starting with the highest.

The specific weight of branches in the structure of commodity output most accurately characterizes the level of specialization. It allows to identify those types of products with which the enterprise acts in the public division of labor. Besides, the structure of gross output also reflects specialization.

According to theory, if as a result of calculation the coefficient is less than 0.2 - this means a weak degree of specialization; it is equal 0,2 - 0,4 - average; 0,4 - 0,6 - high; more than 0,6 - very high (in-depth) specialization [7].

By geographical location, the country's economy is divided into five major economic regions. *Table 1* shows that the North-Kazakhstan region has a well-developed crop production, the level of specialization in this area over the past five years is more than 0.65, which means that a very high (in-depth) specialization in crop production. And for animal husbandry, the average level of the specialization coefficient over the past five years is not more than 0.40. In general, the North-Kazakhstan region is one of the leading in the structure of agricultural production in the Republic of Kazakhstan, which includes Kostanay, North Kazakhstan, Akmola, Pavlodar regions and the city of Astana.

Natural conditions have a special role in the development of agriculture in the region. The territory of the region belongs to the continental steppe of the West Siberian climatic region. The dominance of moderate air masses, the position in the center of the continent, the flat relief gives the climate a sharply continental character: large average and absolute air temperature amplitudes, insufficient moisture, cold, prolonged winter with a stable snow cover, short warm summer [8].

In the Southern Kazakhstan region the crop production is the main industry, the level of specialization in this direction is 0,42 over five years, the animal husbandry is an additional branch, the specialization rate coefficient is 0.31. According to the theory, the coefficient 0.2-0.4 characterizes the average level of specialization. During the research Kyzylorda, South Kazakhstan, Zhambyl, Almaty regions and the city of Almaty have been united in this region. In this region generally cotton, grain crops, vegetables, fruits and melons are grown on the fields. In animal husbandry - sheep breeding, including a karakul breeding is well developed.

Table 1. Coefficients of specialization of the regions of the Republic of Kazakhstan

Regions	2012		2013		2014		2015	
	crop production	animal husbandry	crop production	animal husbandry	crop production	animal husbandry	crop production	animal husbandry
North Kazakhstan	0,63	0,41	0,67	0,40	0,66	0,41	0,65	0,41
South Kazakhstan	0,41	0,32	0,42	0,31	0,44	0,31	0,43	0,31
East Kazakhstan	0,40	0,33	0,36	0,34	0,37	0,34	0,37	0,34
Central Kazakhstan	0,40	0,33	0,48	0,33	0,43	0,31	0,44	0,32
West Kazakhstan	0,40	0,37	0,33	0,38	0,31	0,34	0,35	0,36

In the East Kazakhstan region the specialization indicators are at the average level, the specialization ratio is 0.37 for crop production and 0.33 for animal husbandry. This is explained by the fact that in the region the branches of industry, including non-ferrous metallurgy, machine building and metalworking, timber and woodworking, light and food industries are well developed. In the East Kazakhstan region, crops are cultivated, from the technical ones - sunflower, fodder crops, potatoes, vegetables, in the southern regions - possibly horticulture and viticulture. There many animal husbandry sectors are also represented: sheep breeding and goat breeding are developed in the arid western part, cattle breeding in the foothills, horse breeding in the mountainous regions, pig breeding in the northern and northeastern parts. The East Kazakhstan region is the only region in Kazakhstan where the breeding of Siberian deer develops. Beekeepers of the region receive wonderful Altai honey. The reservoirs of the region allow developing the fish industry.

In the Central Kazakhstan region, the industry specialization indicators are also on an average level, but the crop production is more prevalent, the level of specialization is 0.43 on average over the past four years. And the level of specialization of animal husbandry averages 0.32. Central Kazakhstan is located in the arid zone. The climate is sharply continental. The relief with small hills, arid climate, low water availability of the territory, low-yielding soils do not allow to develop agriculture on the most part of the region. These lands are used as natural, low-grass pastures for sheep breeding. However, in the north of the region crop production is developed quite well, including grain and forage crops, vegetables, potatoes, and animal husbandry is represented by cattle breeding. The main riches of the region are minerals: coal of the Karaganda basin and copper ore of Zhezkazgan, Konyrata, Sayaka [9].

In agriculture of Western Kazakhstan animal husbandry prevails, namely camel breeding and sheep breeding, the level of specialization on the average for the last four years is 0.36. And the coefficient of specialization of the crop production averages 0.34. In the northern part of the region crop production is very well developed - cultivation of grain crops. The coefficient of specialization of the West Kazakhstan region is calculated by the data of Atyrau, Mangistau, Aktyubinsk and West Kazakhstan regions. The western region has a favorable economic and geographical position, linking Kazakhstan with Russia, Europe, the Middle East, Transcaucasia and Central Asia. The territories of Atyrau and Mangistau oblasts have access to the Caspian Sea. This is a good opportunity for rural commodity producers to export their goods to foreign markets [10].

Typologization of the regions of the country in terms of territorial-sectoral division of labor contributes to more rational management of the agricultural sector. Thanks to it, standard solutions for ensuring food security can be applied. Food security is largely determined on the basis of the output of

basic agricultural products per capita. Consider the production of certain types of agricultural products per capita on regions.

From *table 2* it is visible, that Atyrau, Zhambyl, Karaganda, Kyzylorda, Mangistau, South-Kazakhstan regions and the cities of Astana and Almaty show a low level of meat and milk per capita. In these regions, the volume of production of meat and milk per capita is lower than the average output per capita in the republic. The highest level of production of meat products is observed in Aktobe, Almaty, North-Kazakhstan, East-Kazakhstan regions and the highest milk production per capita - in Akmola, Kostanay, Pavlodar, North-Kazakhstan and East-Kazakhstan regions.

Table 2. Grouping of regions on the production of livestock products per capita, 2015

Meat and meat products, kg		Milk, kg	
<i>Low level: less than 55.1 kg</i>		<i>Low level: less than 303.3 kg</i>	
Atyrau	44,5	Atyrau	115,6
Zhambyl	51,2	Zhambyl	267,5
Karaganda	51	Karaganda	283,5
Kyzylorda	22,4	Kyzylorda	115,9
Mangistau	10	Mangistau	14,9
South Kazakhstan	38	South Kazakhstan	256,1
Astana city	0,1	Astana city	2,1
Almaty city	0,7	Almaty city	7,6
<i>The average level: more than 55.1 kg and less than 65.1 kg</i>		<i>The average level: more than 303.3 kg and less than 400 kg</i>	
Akmola	62,6	Aktobe	370
West Kazakhstan	58,7	Almaty	333
Kostanay	62,1	West Kazakhstan	358,2
Pavlodar	59	-	-
<i>High level: more than 65, 1 kg</i>		<i>High level: 400 kg</i>	
Aktobe	78	Akmola	477,7
Almaty	150	Kostanay	408,2
North-Kazakhstan	95,6	Pavlodar	471
East Kazakhstan	100,8	North-Kazakhstan	822
-	-	East Kazakhstan	557,9

From *table 3* it is visible that in seven regions and cities of Astana and Almaty potato production per capita is lower than the average production per capita in the country. Akmola, Almaty and East Kazakhstan regions show an average level of production. In these areas potato production per capita averages 332 kilograms. And the highest production is observed in South Kazakhstan, Pavlodar and North-Kazakhstan regions, in these regions potato production per capita is 400 kilograms. In Mangistau region, potatoes are not grown at all [11].

Table 3. Grouping of regions on the production of crop production per capita, 2015

Potatoes, kg		Vegetables, kg	
<i>Low level: less than 280 kg</i>		<i>Low level: less than 214 kg</i>	
Aktobe	103	Akmola	86,8
Atyrau	29	Aktobe	78
West Kazakhstan	102,8	Atyrau	108,8
Zhambyl	169,4	West Kazakhstan	91,6
Karaganda	211,3	Karaganda	66,2
Kostanay	213,5	Kyzylorda	94,8
Kyzylorda	97	Mangistau	8,6
Astana city	11,9	East Kazakhstan	174,1
Almaty city	0,73	Astana and Almaty cities	3
<i>The average level: more than 280 kg and less than 400 kg</i>		<i>The average level: more than 214 kg and less than 400 kg</i>	
Akmola	329,9	South Kazakhstan	297,4
Almaty	339	Pavlodar	243

East Kazakhstan	328,7	North-Kazakhstan	333,2
<i>High level: more than 400 kg</i>		<i>High level: 400 kg</i>	
South Kazakhstan	912,5	Almaty	463
Pavlodar	466	Zhambyl	568,2
North-Kazakhstan	898,2	Kostanay	807,3

In Akmola, Aktobe, Atyrau, West Kazakhstan, Karaganda, Kyzylorda, East Kazakhstan regions and cities of Astana and Almaty, the volume of vegetable production per capita is below the national average indicator. Almaty, Zhambyl and Kostanay regions show the highest indicator on cultivation of vegetables. In these regions, per capita production of vegetables is 400 kg. A very low level of vegetable production is observed in the Mangistau region.

The results of the analysis which is carried out by us allow to draw the following conclusion: in the considered regions of the country there is no region with the specialization coefficient value less than 0.2. In all regions, the value of the specialization coefficient is in the range from 0.3 to 0.6 and this indicates that the agrarian sector of the country has all the conditions for stable development along with oil-producing industries.

Thus, the study of the whole set of issues of specialization of agricultural production requires a more detailed study of the factors and conditions that contribute to the consistent formation and development of scientific organization of placement and specialization in all its forms and at different levels of the agrarian economy. In this regard research work in this direction will be continue.

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