



STATISTICAL ANALYSIS OF STRUCTURAL CHANGES IN THE AGRICULTURAL SECTOR OF COUNTRY

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ABSTRACT

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This article describes the current state and dynamics of the country's agricultural sector, economic and statistical analysis of agricultural production in economic entities and promising areas.

KEYWORDS: *agriculture, agricultural production, gross domestic product, gross regional product, agriculture, animal husbandry, structural changes, investments, regional economy, economic and statistical analysis, agrarian reform, socio-economic processes.*

INTRODUCTION

The development of the economy of our country cannot be imagined without the activity of the agricultural sector. This industry plays an important role in supplying the population with food and agricultural products, and in supplying the industrial sector with raw materials. Therefore, for the purpose of sustainable development of the agricultural sector in our republic, the gradual and consistent implementation of economic reforms in the sector, the effective use of investment, labor, material, technological and innovative potentials will lead to the achievement of a high level of economic efficiency in the sector.

Today, at the level of agricultural economic reforms implemented in our country, a number of important legal, organizational and economic measures for the sustainable development of small business activities implemented systematically. In particular, in the 2020-2030 strategy for the development of agriculture of the Republic of Uzbekistan, special attention paid to the issues of supporting the development and diversification of entrepreneurship in the agricultural sector [1].

Regulatory and legal documents on the management and conduct of agricultural activities include the Law of the Republic of Uzbekistan "On Farming" [1] and other legal documents. If the international agreement of the Republic of Uzbekistan stipulates different rules than those stipulated in the agricultural legislation of the Republic of Uzbekistan, the rules of the international agreement shall be applied. The purpose of this Law is to regulate relations in the field of establishment, operation, reorganization and liquidation of farms. Currently, the farm is one of the main subjects of agricultural production in the Republic of Uzbekistan.

A farmer (personal assistant) farm is a family small commodity farm, which is a subject of the farm law that grows and sells agricultural products based on the personal labor of family members on a plot of land given to the head of the family for lifetime ownership. The activity of a farmer (personal assistant) farm is regulated by the Law "On Farming" [2]. A farmer (personal assistant) farm can be carried out with or without the establishment of a legal entity, according to the wishes of the members of the farm. A farmer (personal assistant) farm is created on

a voluntary basis and is considered established after it is registered with the state and given a plot of land in the prescribed manner. In the development strategy of New Uzbekistan for 2022-2026, "Intensive development of agriculture on a scientific basis, increasing soil fertility, improving the system of providing agro-services based on science and innovation, increasing the production volume of agro-industrial enterprises by 1.5 times, developing agro-logistic centers, modern laboratories tasks such as increasing their number, implementing a national program on seed and seedling cultivation, establishing an international agricultural university, and deepening the integration of science and practice in the field [4].

Currently, one of the urgent tasks is to eliminate the factors that have a negative impact on the sustainable development of farmers and farms, to further strengthen the support of the farming movement by the state, to create conditions aimed at ensuring that it becomes a leading force in society, and to increase the income of farmers and farmers by diversifying production. It is important to find optimal solutions to problems aimed at increasing.

At the same time, complex statistical analysis of agricultural production processes in our republic, multi-factor assessment of economic development trends of farms, development of scientific proposals and practical recommendations on problems and solutions of agricultural sector development in regions is an urgent and important issue.

ANALYSIS OF LITERATURE ON THE TOPIC

Many local and foreign scientists and specialists have conducted extensive scientific research on increasing the efficiency of agricultural production and statistical evaluation of its structural structures. In particular, Kh. D. Khojakulov., N. Kh. Rashitova., N. N. Askarov., S. N. Sayfullaev [7] and Kh. Shodiev [9] the methodological aspects of the analysis of structural changes in the agricultural sector by statistical methods, T. Shodiev [10] studied the theoretical and practical aspects of econometric models of the economic development of the agricultural sector, Ch.Murodov [5], B.Berkinov., Sh.T.Ergasheva., Q.A.Choriev, [6,8] in our country liberalization of agriculture, formation of the optimal composition of arable land, structural and economic mechanisms of farming, B.P. Pankov [11], N.A.Popov[12] models of agro-industrial complex, issues of effective organization of agricultural economy, V.L. Somov [13] carried out scientific research on the analysis of economic development and efficiency of agriculture using statistical methods. For example, in the scientific article "Statistical analysis of production processes in the agricultural sector according to the forms of

economic management" [14] by professor Kh. Khojakulov, the specific characteristics of agricultural production in our country, the role of economic entities in them, the level and dynamics of production by economic categories statistical evaluation and scientific conclusions were drawn.

Associate Professor K. Kh. Jumaev in his scientific article "Economic-statistical analysis of agricultural production" [15] describes the current state of agricultural production in our country, the role of the industry in the country's economy, economic activity of its main branches. analysis and the main problems and directions that need to be implemented in the development of the network are described.

Doctor of Philosophy (PhD) B. Utanov's scientific article on the topic "Integral indicators representing the efficiency of the activities of multi-sectoral farms" [16] describes the activities of multi-sectoral farms in our republic and their economic determination and system of integrated indicators is described on a scientific basis. Q. Berdigulov's scientific article entitled "Statistical analysis of the structural change in agriculture" [17] describes the regulatory documents adopted in the following year on the further development of agriculture and the processes of its implementation, the problems in the methodology implemented in agriculture and ways to eliminate them.

In the scientific article "Labor productivity as a factor of sustainable development of agricultural enterprises" [18] by T.G. Kolesnikova and others, the role of the labor factor in the economic development of the agrarian sector, its characteristics, economic-statistical analysis of the level and dynamics of labor productivity in agricultural enterprises are highlighted. In the above studies, the development and structural changes of the agricultural network were analyzed using statistical methods at various levels, theoretically and methodologically studied, but in the current conditions, the agricultural network of our country is deeply analyzed and the main directions of the development of the network, structural changes are studied based on the identification of trends in it. not sufficiently implemented.

RESEARCH METHODOLOGY

During the research process, methods such as scientific observation, summarizing indicators, statistical grouping, expert evaluation, dynamic series, statistical tables and graphs were widely used. From a methodological point of view, statistical offices today perform a statistical analysis of the products grown in farms, peasant (personal assistant) farms and enterprises performing agricultural activities in Form 1-FX (annual) "Report on the activities of the farm", Form 2-FX (twice a year) "Report on the activity of the farm", form 1-DX (2 times a year) "Report on the activity of farmers

(personal assistant) farms", form 1-QX (annual) "Report on the activity of agriculture", form 4-QX (quarterly) are formed on the basis of "Report on agricultural activity" and 1- KB form (annual) "Report on agricultural activity of micro-firm and small enterprise". The activity of farmers and peasant farms operating in the agrarian sector of our republic was chosen as the object of the research. The purpose of the research is to produce agricultural and livestock products in our republic, to analyze the economic-statistical changes in their structural structures, and to develop proposals and recommendations for future directions of development. The purpose of the research is to make a statistical assessment of the structural changes in the processes of farming and livestock production in our republic, to study the researches related to the analysis of the agrarian sector, and to carry out a comprehensive statistical analysis of the state of development and efficiency of agricultural activities, and to develop practical conclusions and proposals based on the results obtained. The practical significance of the research results is that as a result of the comprehensive statistical analysis of the structural changes in the agricultural industry in our republic, it expands the possibilities of developing targeted programs and making short-term forecasts.

ANALYSIS AND RESULTS

During the years of independence, a wide range of economic reforms aimed at the introduction of market relations and the development of the form of private ownership were implemented in the agricultural sector of our republic. As a result, the share of the non-state sector in the composition of

agricultural products is currently 97.0 percent. Although the share of agriculture in the total volume of the gross domestic product is 26.9 percent in 2021 (34.4 percent in 2000), it has decreased compared to previous years, but production in this area is increasing at a high rate. In 2021, the volume of products produced in the agriculture, forestry and fisheries sector at current prices amounted to 183,518.5 billion soums, an increase of 4.0% compared to 2020 [3]. This is relatively higher than the CIS countries. The main economic entities in the agrarian sector of the republic are farmers, peasant farms, and agricultural enterprises. In the production of the main types of products in agriculture, the share of organizations engaged in agricultural activities has decreased (5.2%), while the share of farmers (29.3%) and peasants (65.5%) has increased [3]. In our republic, in 2021, the share of the agricultural sector in the total volume of agricultural products will be 50.1 percent, and that of the livestock sector will be 49.9 percent reached [3]. The share of agriculture in the total value of agricultural products by farm categories has been increasing in recent years in farmers' and peasant farms. Such a situation can be observed in the field of animal husbandry on farms. The weight of production of products in agricultural enterprises has decreased. This situation occurred as a result of the development of the farming movement. Currently, the main part of livestock products is produced on farms. The results of the analysis show that the productivity level of agricultural crops has increased year-by-year, leading to an increase in the volume of gross product production (Table 1).

Table 1
Dynamics of gross agricultural product production in 2021 by regions of the country [3]

No	The name of the areas	Gross production in 2021, billion soums	Growth rate (%) compared to 2020
1.	Republic of Karakalpakstan	12339,3	103,7
2.	Andijan region	32030,4	104,5
3.	Bukhara region	29150,0	103,7
4.	Jizzakh region	21083,8	104,2
5.	Navoi region	15224,5	104,0
6.	Namangan region	23557,2	104,6
7.	Samarkand region	41206,1	104,6
8.	Syrdarya region	10512,0	104,4
9.	Surkhandarya region	24016,4	104,6
10.	Tashkent region	30712,7	104,0
11.	Fergana region	28095,1	103,7
12.	Khorezm region	20501,3	104,0
13.	Kashkadarya region	29352,8	102,2
Total by Republic:		317781,6	104,0

From the data of Table 1, it can be seen that in 2021, the highest growth rates in the production of agricultural products in our republic at the regional level are in the regions of Samarkand (104.6%), Surkhandarya (104.6%), Namangan (104.6%) and

Andijan (104.5%). observed. Kashkadarya (102.2%), Bukhara (103.7%), and Fergana regions (103.7%) and the Republic of Karakalpakstan (103.7%) had relatively low growth rates. In all forms of economic management, farms have a high share in the

production of agricultural products and a relative growth trend (Table 2).

Table 2
Dynamics of production of agricultural products in Uzbekistan

Product type	Unity	In all categories of farms		Including					
				In farms		In peasant farms		In agricultural enterprises	
		2021 year	In relation to 2020, %	2021 year	In relation to 2020, %	2021 year	In relation to 2020, %	2021 year	In relation to 2020, %
Cereal crops	thousand tons	7634,6	100,0	6131,2	98,0	748,0	94,9	755,3	127,7
Vegetable	thousand tons	10850,2	104,0	3959,7	107,8	6569,3	101,0	321,2	128,6
Crops	thousand tons	2285,3	107,1	1199,8	115,8	1019,7	96,9	65,8	140,8
Fruits and berries	thousand tons	2852,6	101,4	1210,5	106,2	1561,4	98,9	80,6	86,6
Grapes	thousand tons	1695,3	105,5	757,0	114,1	896,9	99,0	41,4	111,0
Potatoes	thousand tons	3285,6	104,5	766,1	120,9	2462,7	101,1	56,8	79,3
Meat	thousand tons	2635,1	104,6	137,3	122,4	2357,8	102,4	140,0	133,7
Milk	thousand tons	11274,2	102,7	564,8	108,6	10591,0	102,1	118,5	139,6
Egg	thousand tons	7788,4	100,1	1078,7	102,8	4875,9	101,2	1833,8	95,8

The year-by-year increase in the share of farms in the production of all agricultural products in the republic had a positive effect on the increase in economic efficiency. It has been proven in practice that farms have a number of advantages over other forms of economic management.

There are no serious problems in entering and exiting the market in their activities;

Flexibility in business management and adaptability in product production provide a wide opportunity for rapid adaptation to changes in the market situation;

The fact that it is based on private ownership increases the efficiency of resource use;

Develops production mainly at the expense of its own funds as a financially independent farm;

Farms are fully compatible with the requirements of the market economy according to their socio-economic nature and principles of management. The creation of wide opportunities for the improvement of the activity of farms and their development is giving its positive results. The share of farms in the gross agricultural product, cultivated areas, head number of livestock, and the number of employees are growing rapidly compared to the entire agriculture of the country. These characteristics of farms indicate that they have taken a strong position as efficient forms of management in the agrarian sector. In any human society, there are also economic laws that directly affect the production

process and its effective organization, and people try to use them wisely to improve their lifestyle and satisfy their material interests.

Among such economic laws, it is important to consider the laws related to demand and supply, value, extended reproduction, and competition. In order to ensure the economically successful completion of the production process in agriculture and to ensure that producers achieve high economic efficiency, it is necessary to maintain each crop and livestock based on science-based technology. Because there are specific characteristics of a certain type of crop or livestock care technology, failure to comply with them will have a negative impact on the level of productivity of production. Our research shows that there are principles of interaction and influence between the growth of the production of agricultural products in farms and the level of development of their property relations in relation to property, yield and income. Because, the more each farmer increases the volume of production and income, the more his interest increases.

However, let electricity be used to restore farm production. These, in turn, are striving to improve the productivity of agricultural endeavors. In particular, the management of farms is not organized at a high level, there is insufficient organization of optimal workers, insufficient provision of information and communication technologies, low quality and high cost of providing services to relevant

enterprises, etc. In the same way, in the production of agro technical means, there are cases of decrease in productivity, quality and efficiency of crops. Therefore, for the first time, the equipment for farming at the level of global enterprises in food will be created if it supports specific and appropriate agro technical measures in demand.

CONCLUSIONS AND SUGGESTIONS

Based on the above information, we offer the following in order to further develop and improve the efficiency of the agricultural sector in our republic:

1. Improvement of the statistical methodology of the agricultural network is an important issue in the present conditions. For this, the following main tasks are recommended:

Development of a program for conducting statistical monitoring of network activities (overall, sample, questionnaire, monographic monitoring, etc.);

Improvement of the system of indicators describing the financial results of agricultural activity (productivity, product cost, income, profit and profitability);

Statistical analysis of absolute and relative changes in the volume of production of the main types of agricultural products (farming and livestock); comprehensive statistical analysis of structural changes in the scale of production of the main types of agricultural products;

2. Carrying out regional comparisons of the main indicators of the scale of agricultural production in our country using various statistical methods (economic indices, correlation-regression analysis, etc.);

3. Statistical modeling of time series describing the results of agricultural production and development of medium-term forecasts; 4. Comprehensive statistical analysis of various factors affecting the results of agricultural production and preparation of scientific and practical proposals based on them;

5. Today, the development of multi-sectoral farms has become an important aspect of the country's development, especially the main force in ensuring the permanent employment and well-being of the rural population, and is one of the important factors in the development of the country's economy. In the future, it is necessary to solve the main problems faced by multi-branch farms, to develop necessary measures to support them in every way from the state.

6. In the cultivation of agricultural crops in our country, measures such as ensuring the regular supply of mineral and local fertilizers in the appropriate amount and at the specified time, regularly improving measures for the full and efficient use of production tools, selective planting of fertile varieties of agricultural crops serves to

increase the volume and efficiency of production of products in the network.

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