

**Ways of Increasing the Efficiency of Use of Production Resources in the
Agricultural Field
(Example of Agriculture of the Republic of Karakalpakstan)**

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Abstract

The article analyzes the practical situation of the use of production resources in the agricultural sector in the Republic of Karakalpakstan. Practical proposals and recommendations are presented on ways to increase the efficiency of the use of production resources in the agricultural sector (in the example of agriculture of the Republic of Karakalpakstan).

Keywords: *Agrarian, agricultural economy, production, statistics, net profit, revenue, primary production.*

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Introduction

According to the United Nations Food and Agriculture Organization and the World Health Organization, at present, almost one in nine people in the world is undernourished, and more than 30 percent of the planet's population is experiencing the problem of malnutrition, the lack of the most basic microelements and vitamins. "The gap between the rapid increase in the population of the earth and the limited possibilities of growth of food production is the main reason why the issue of solving the food program is becoming more acute year by year, as a result, the ecological degradation of the environment is still continuing, climate changes Unprecedented consequences, frequent droughts and water scarcity, including depletion of groundwater for irrigation, insufficient investment in irrigation, land reclamation and land fertility restoration are critical challenges for food security" is.

The development of the economy of our country cannot be imagined without the activity of the agricultural industry. 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, a number of important legal, organizational and economic measures for sustainable development of small business activities are being implemented step by step at the level of agricultural economic reforms implemented in our regions, especially in the Republic of Karakalpakstan. In the 2020-2030 strategy for the development of agriculture of the Republic of Uzbekistan, special attention is 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 rules different from 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.

In the agrarian field, it is a family small commodity farm, a family farm that is given to the head of the family for life-long ownership, based on the personal labor of family members, who grows and sells agricultural products, is the subject of economic law. Activities in the agricultural sector are regulated by the Law "On Agriculture" [2]. According to the wishes of the members of the farm, it can be done with the establishment of a legal entity and without the establishment of a legal entity. A farm is created on a voluntary basis and is considered to be established after it is registered with the state and a plot of land is given to it 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 breeding, establishing an international agricultural university, and deepening the integration of science and practice in the field [4].

Currently, one of the urgent tasks in the agricultural sector in the Republic of Karakalpakstan 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 by diversifying production. and it is important to find optimal solutions to the issues aimed at further increasing the income of farmers in the example of farming.

At the same time, a comprehensive statistical analysis of the processes of growing agricultural products, a multi-factor assessment of the economic development trends of farms, development of scientific proposals and practical recommendations on the problems of the development of the agricultural sector in the regions and their solutions is an urgent and important issue.

Analysis of literature on the topic

Many local and foreign scientists and specialists have carried out extensive scientific research on increasing the efficiency of the agricultural sector 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 economic development of the agricultural sector, Ch.Murodov [5], B.Berkinov, Sh.T.Ergasheva, Q.A.Choriev, [6, 8] liberalization of agriculture in our country, formation of the optimal structure of arable land, structural and economic mechanisms of farm management, B.P. Pankov [11], N.A. Popov [12] models of the agro-industrial complex, issues of effective organization of the agricultural economy, V .L. Somov [13], who 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 by 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 activities of their 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 in his scientific article "Integrated 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 structural changes 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.

T.G. In the scientific article "Labor productivity as a factor of sustainable development of agricultural enterprises" [18] by 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.

Although in the above studies, the ways of increasing the efficiency of the use of production

resources in the agricultural sector, the structural-structural changes were analyzed by statistical methods at various levels, and studied theoretically-methodically, in the current conditions, the agricultural network was deeply analyzed on the example of the farming of the Republic of Karakalpakstan, and the development of the network was determined based on the determination of the trends of changes in it. studies on the study of its main trends and structural changes have not been carried out sufficiently.

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 statistical analysis of the products grown in farms, peasant farms and enterprises engaged in agricultural activities in the 1-FX form "Report on the activities of the farm", the 1-DX form "Report on the activities of the agricultural enterprises", the 1-QX form They are formed on the basis of "reports on agricultural activity". In the category of organizations performing agricultural activities, data on micro-firms and small enterprises were also taken into account by evaluation.

Analysis and results

In recent years in the Republic of Karakalpakstan, large-scale measures have been implemented on economic reforms aimed at introducing free market relations in the agricultural sector and developing forms of private ownership and business management in the agrarian sector. Although the share of agriculture in the total volume of the gross domestic product will be 27.1 percent in 2022 (30.1 percent in 2021), it has decreased compared to previous years, but the production of agricultural products in this sector is increasing at a high rate. This is evidenced by the fact that in 2022, the volume of products produced in the agriculture, forestry and fishing industry will amount to 151,250.9 billion soums at current prices, and compared to 2021, it will increase by 16.1% [3]. As a result of the implementation of deep structural changes in the agricultural sector of our country, the production volume of agricultural products increased by 3.0% in 2022.

According to the analysis of products grown in the agricultural sector in the Republic of Karakalpakstan, "in 2022, the total volume of agricultural, forestry and fishery products will be 260.3 trillion. soums, including farming and animal husbandry, hunting and services provided in these areas - 251.8 trillion. soums, in forestry - 6.7 trillion. soums, in fish farming - 1.8 trillion. organized soums.

Or, according to preliminary data, the total volume of agricultural, forestry and fishery products in January-June 2022 is 116,618.2 billion. 113,148.5 billion soums, including farming and animal husbandry, hunting and services provided in these areas. soums, forestry - 2,887.3 bln. soums, fisheries - 582.4 billion soums. the fact that it constituted soums [19] shows the need for a deeper study of agriculture and further improvement of its efficiency. In 2022, the volume of agricultural, forestry and fishery products increased by 103.0% compared to the corresponding period of the previous year (in 2020, respectively, compared to the corresponding period of 2019 – 103.1%), including agriculture and animal husbandry, hunting and services provided in these areas - 102.9% (103.0%), forestry - 101.7% (102.0%), fisheries - 119.8% (136.1%). In 2022, the positive growth rate of the industry was achieved mainly due to the high growth rate of the following products compared to the corresponding period of 2019: meat (in live weight) - 102.1%; milk – 102.8%; eggs – 100.7%; cereals and legumes -101.7%; vegetables – 102.4%;

food crops -103.2%; fruits and vegetables - 104.0%; we can see that grapes increased by - 102.2% and fish caught by -118.4% [20].

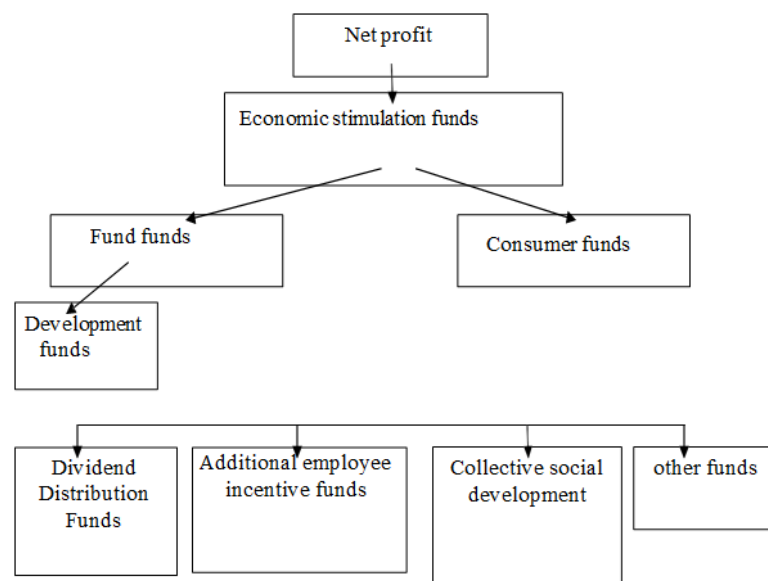
It provides machinery and mechanization services for the efficient organization of agricultural activities in the Republic of Karakalpakstan, supplies fish fry, mixed feed, and also provides assistance in organizing the sale or processing of cultivated fish. In the Republic of Karakalpakstan, it is necessary to make effective use of the available opportunities in fish cultivation and increase its consumption. A complex for the care of 5,000 turkeys was established in the Republic of Karakalpakstan. A specialized rabbit breeding farm has been established in the area, and they are engaged in rabbit breeding, meat and wool processing. High, stable livestock productivity, quality livestock products can be obtained only from healthy cattle. Maintaining the health of livestock, their effective economic use is one of the most important problems of agricultural science and agricultural practice. In order to obtain a high stable productivity of livestock, to maintain its health, first of all, it is necessary to change the structure of the feed balance and to switch to pasture-mountain, a high technology of feeding cattle throughout the year. The most important factor in the productivity and productivity of agricultural livestock is the state of the livestock feed base and fodder resources. The number of animals is closely related to the food supply in general, as well as the level of nutrition. Reasonable specialization of the enterprise helps to use land effectively as the main means of production, labor and material resources.

When calculating efficiency, it can be determined by gross and sold products, gross and net income:

- 100 hectares of agricultural land and 100 hectares of cultivated land;
- for 1 employee and for 1 person – day (or man-hour);
- basic production assets for 1000 soums;
- All production costs for 1000 soums.

An overview of the distribution of profits of an agricultural enterprise is presented in Figure 1.

Figure 1. Distribution of profits of production enterprises in the agricultural sector in the Republic of Karakalpakstan [21].



Profitability, which is a general indicator of the economic efficiency of production in the agricultural sector in the Republic of Karakalpakstan, includes the resources of the industry consumed by production - the efficiency of the use of labor, land and materials, the level of management and organization of production and labor, the quantity, quality and sale of products, the expansion of production and the employment of workers. reflects the results of economic incentives. Profitability factors of agricultural production can be extensive and intensive. Thus, determination of reserves for increasing the profitability of agricultural production, on the one hand, focuses on determination of reserves for increasing cash receipts from sales, and on the other hand - determination of reserves for reduction of product costs. In order to increase the economic efficiency of agricultural production, it is necessary to increase the volume of agricultural products while reducing the cost of producing a product unit.

Table 1. Livestock population and livestock production dynamics in the Republic of Karakalpakstan

Indicators	2012 year			2022 compared to 2012, %		
	In all economic categories	including		The whole farm categories	including	
		farmer in farms	farmer in farms		farmer in farms	farmer in farms
Number of head of cattle, thousand (by the end of the year)						
Large horned cattle	9094,7	501,7	8497,1	2,4 m.	3,9 m.	2,6 m.
sh.j.: cows	3758,1	171,2	3557,4	2,0 m.	5,1 m.	2,1 m.
Sheep and goats	15340,9	1149,9	12146,7	2,5 m.	15,4 m.	3,0 m.
Birds	37733,3	3958,6	22561,0	6,1 m.	31,1 m.	5,8 m.
Production of livestock products						
Meat (in live weight), thousand.tn	1461,5	37,9	1389,2	2,9 m.	10,1 m.	3,0 m.
Milk, thousand tn.	6169,0	205,0	5927,8	3,0 m.	9,6 m.	13,8 m
Eggs, million pieces	3061,3	288,1	1775,6	6,2 m	87,4 m.	6,4 m.

Source: Calculated based on the data of the State Statistics Committee.

According to the economic analysis, the number of farms in the Republic of Karakalpakstan was optimized and reached 218,605 and 78,567 as of January 1, 2009 and 2015, respectively, and the land area per farm increased by 2.74 times and equaled 74 hectares. But recognizing that the achievements in the agricultural sector are not up to the required level, in our opinion, it is necessary to pay special attention to the study of the experience of advanced countries and its practical application, and the use of modern technologies. If in 2020 the average amount of milk milked from one cow in all farm categories was 2321.0 kg, it was 1769.2 kg in farms and 2371.8 kg in peasant farms (Table 1).

In the successful formation and development of farms in the Republic of Karakalpakstan, it is necessary to raise the development of the cooperative movement in the village to such a level that it should cover not only production, but also product processing and sale [15]. It is worth noting that the transition of agricultural management to the most efficient farming movement, which has fully justified itself in the experience of developed countries, started a new era in the development of the sector. As a result of the introduction of the farming movement, people's attitude towards the land changed, they developed a sense of ownership. This made it possible not only to increase the quality and volume of the produced products, but also to increase

people's interest in their work and their well-being. At the same time, farmers who know their rights and obligations well became the leading force implementing reforms in the countryside [17].

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 the Republic of Karakalpakstan:

1. In the current conditions, improving the statistical methodology of the agricultural network of the Republic of Karakalpakstan is an important issue. For this purpose, the following main tasks are recommended: development of a program for conducting statistical monitoring of network activities (total, sample, questionnaire, monographic observations, etc.); improvement of the system of indicators describing the financial results of agricultural activity (productivity, product cost, profit); statistical analysis of absolute and relative changes in the volume of production of the main types of agricultural products (farming and livestock); 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 the Republic of Karakalpakstan using various statistical methods (economic indices, correlation-regression analysis, etc.);
3. Statistical modeling of time series describing the results of agricultural production activities and development of medium-term forecasts;
4. Comprehensive statistical analysis of various factors affecting the results of agricultural production activities and development of scientific and practical proposals based on them.
5. Today, the development of multi-sectoral farms has become an important aspect of the development of the Republic of Karakalpakstan, especially the main force in ensuring the permanent employment and well-being of the rural population, and is one of the important factors in improving 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.

LIST OF REFERENCES USED

1. Decree of the President of the Republic of Uzbekistan dated October 23, 2019 No. PF-5853 "On approval of the strategy of agricultural development of the Republic of Uzbekistan for 2020-2030" (<https://lex.uz/>).
2. Law of the Republic of Uzbekistan "On Farming" dated 04.30.1998. n 602-i (new edition); 2. The Law of the Republic of Uzbekistan "On Agriculture" was adopted by the Legislative Chamber on January 13, 2021. Approved by the Senate on March 12, 2021 (<https://lex.uz/>).
3. Socio-economic development of the Republic of Uzbekistan. Statistical collection.- Tashkent, DSQ. 2022 year
4. Decree of the President of the Republic of Uzbekistan dated January 28, 2022 No. PF-60 on the development strategy of New Uzbekistan for 2022-2026 (<https://lex.uz/>).
5. Muradov Ch. Osobennosti liberalizatsii selskogo hozyaystva Uzbekistana. // Dostizheniya nauka i tekhniki APK. –2001.– No. 5.41–42 p.

6. Berkinov B.B., Ergasheva Sh.T. Formation of optimal composition of cultivated areas in the region. *Voprosy modelirovaniya i informatizatsii ekonomiki. Sbornik nauchnx trudov. Institute cybernetics* - T.: 2000, No. 19. p. 88-91
7. Khojakulov Kh.D., Rashitova N.Kh., Askarov N.N., Sayfullaev S.N. Development of effective ways of structural changes in the context of modernization and diversification of the economy based on statistical methods. *Monograph*. - T.: ECONOMY-FINANCE, 2018. - 206 p.
8. Choriev K.A., Berkinov B. Legal and regulatory basis of organization and management of farmers and farms. - T.: Sharq. 2002. - 16 b.
9. Shodiev X and others. *Statistics. Textbook*. T.: "Boston of Thought", 2013, Page 40.
10. Shadiev T.Sh. *Ekonomicheskie modeli razvitiya selskogo hozyastva*. - T.: Science, 1986. - 168 p.
11. Pankov B.P. *Ekonomika agropromyshlennogo complex; method of economy*. - M.: Znanie, 2006. - 223 p
12. Popov N.A. *Ekonomika selskogo hozyaystva*. - M.: Delo i Servis, 2005. - 56 p.
13. Somov V.L. *Ekonomiko-statistichesky analiz razvitiya selskogo hozyaystva Saratovskoy oblasti*.// *Voprosy statistiki*, 2019, T.26, No. 6. – S. 47-54.
14. Khojakulov Kh.D. Statistical analysis of production processes in the agricultural sector according to the forms of economic management // *Scientific electronic journal of economics and innovative technologies*, 2014, No 3.
15. Jumaev Q.Kh. Economic-statistical analysis of the cultivation of agricultural products // *Scientific electronic journal of the statistical bulletin of Uzbekistan*, issue 4 of 2021
16. Jumaev Q.Kh. Economic-statistical analysis of the cultivation of agricultural products // *Scientific electronic journal of the statistical bulletin of Uzbekistan*, issue 4 of 2021
17. Berdikulov K.G. Statistical analysis of the structural change in agriculture // *Scientific electronic journal of the statistical bulletin of Uzbekistan*, 2021, issue 1
18. Kolesnikova T.G., Naumova T.M., Smolennikova L.V - *Proizvoditelnost truda - kak factor ustoychivogo razvitiya selskohozyaystvennyx predpriyatiy* // *Selskoe hozyaystvo*, - Moscow, 2021g. - No. 4, 36-49 p
19. State Statistics Committee of the Republic of Uzbekistan. "Acreage of agricultural crops, orchards, vineyards, gross yield and productivity in 2020" (preliminary data). *Statistics ballot*. Tashkent - 2021.
20. Jumaev Q.Kh. "Economic-statistical analysis of agricultural development". *Scientific electronic magazine "Uzbekistan Statistics Bulletin"*. 2021, issue 2.
21. Formanova S. B. Application of Pedagogical Technologies to the Topics of the Metals Department // *Annals of the Romanian Society for Cell Biology*. – 2021. – C. 5499-5509.
22. Shomurotova, S. X., Farmonova, S. B., Kamolova, N. I., & Movlonova, S. A. (2020). Improving the Methodology of Teaching the role of metals in Biochemical Processes using Pedagogical Texnologies. *Engineering a Management Test*, 83.
23. Bobonazarovna F. S., Abduhamidovich N. A. Development of Mathematical Literacy in Chemistry Lessons // *European Scholar Journal*. – 2021. – T. 2. – №. 3. – C. 97-99.