Possibilities of using economic mechanisms when organizing fruit and vegetable cooperatives

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Abstract. This scientific article analyzes the importance of using economic mechanisms for organizing fruit and vegetable cooperatives in the Republic of Uzbekistan, increasing the volume of fruit and vegetable production, productivity indicators globally and in the country, as well as increasing efficiency. Information on fruits and vegetables in the Kashkadarya region and districts was compared. Based on measures aimed at increasing the efficiency of the food program in the Republic of Uzbekistan, the article reflects the assigned tasks. The analysis also shows that cooperatives make a significant contribution to the regional economy in order to create jobs, develop socio-economic opportunities, and stimulate production growth. In particular, a plan of measures was recommended to ensure the competitiveness of fruits and vegetables grown in agriculture on world markets, which plans to further expand the scope of cooperation with foreign countries in the field of standardization of modern technologies, metrology and quality. Certification, introducing information to exporters about changes in foreign market conditions, promising markets, competitors, reducing the costs of transporting export goods through the development of international transport communications, producing innovative products that are competitive and scientific in all spheres of the economy, reducing transport costs through the introduction of standards, development transport and communication systems and the opening of new transport corridors, the introduction of quality control in accordance with the requirements of international standards, strengthening trade, economic and financial cooperation with foreign countries, export support from the state - introducing issues of further development of support mechanisms increases the significance of the article.

1 Introduction

Fruit and vegetable products in agriculture are mainly grown in the private sector, 75-85 percent of which belong to farmers and farms. Today, the increase in the number of large business entities in the field of horticulture leads to increased competition between the private sector of fruit and vegetable growing. An analysis of the experience of developed countries in growing, storing, processing and exporting fruits and vegetables shows that...
there is a need to develop cooperation between producers of these products. In this case, in order for farms and farms that have a large number of seasonally ripening fruits and vegetables in the system, scattered over the territorial location and small in size, to participate in the competition, it is advisable to unite them into a cooperative. In the development of agriculture in Uzbekistan, increasing the volume and competitiveness of fruit and vegetable production, organizing cooperation in this area, and using economic mechanisms introduced by the state serve, first of all, to stimulate producers.

2 Materials and methods

Economic problems associated with the development of production, processing, storage, service and sale of fruits and vegetables and issues of development of the cooperative process in agriculture foreigners Buzina T., Kuznetsova N., Minakov I., Volodin V., L. This is reflected in the works of such economists like Antonenko and other agricultural scientists. The work of T. S. Buzina “Optimization of interaction between participants in regional agro-industrial clusters” describes the characteristics of clusters in the regional agro-industrial complex.

Scientific solutions aimed at developing cooperative relations in the conditions of agricultural production in our republic are presented by a number of scientists in the agricultural sector. For example, the work of R.Kh. Khusanov “Scientific and practical foundations of farming” contains the scientific and practical foundations for organizing the activities of the first farms created in our country and creating a legal framework. Deepening reforms in the organization of agricultural firms and cooperatives in the field requires an integrated approach to conducting research in the field of sales of fruits and vegetables.

By studying the possibilities of using economic mechanisms in organizing fruit and vegetable cooperatives in Uzbekistan, using methods of economic analysis, comparison and grouping, areas of activities aimed at increasing the efficiency of the food program in our republic and increasing efficiency are determined, the activities of cooperatives will be determined. Comparing the results achieved in this process with foreign experience will allow us to choose ways to expand the possibilities of using economic mechanisms in the future.

3 Results and Discussion

Our government is adopting a number of regulations to develop and stimulate agriculture. In particular, an action plan is being developed for the mutual integration of production, processing, storage, servicing, sales and export of products in the field of fruits and vegetables, the development of cooperative activities, ensuring food safety and increasing export volumes.

In particular, the decree of the President of the Republic of Uzbekistan dated October 23, 2019 “On approval of the Agricultural Development Strategy of the Republic of Uzbekistan for 2020-2030” No. PF-5853 and the resolution dated March 14, 2019. “Fruit” - according to decision PQ-4239 “On measures for the development of agricultural cooperation in the field of vegetable production” on the basis of farms and peasant farms operating in regions with developed fruit and vegetable production, the organization of specialized cooperatives and increasing its efficiency and convenience. In order to introduce advanced technologies in the production, storage, processing and sale of fruits and vegetables and stimulate the development of cooperation between producers of these products and increase their efficiency, on December 11, 2019 PQ-4549 decisions were
made on additional measures for the development and creation of a value chain in the industry.". It serves to implement the tasks defined in the adopted decisions and other regulatory legal documents related to this activity.

The fruit and vegetable industry occupies an important place in the republic's agriculture. This includes ensuring food security of the population, creating a favorable agribusiness environment and value chain, rational use of natural resources and environmental protection, gradual diversification of government spending, increasing the incomes of low-income residents of rural areas and regions. To develop the economy, in accordance with the Presidential Decree “On approval of the Strategy for the Development of Agriculture of the Republic of Uzbekistan for 2020-2030,” 50 people who have the opportunity and desire to work in agriculture will be united in one area - cooperatives. They are planned to be allocated 15 hectares of land not used in agriculture, each member of the cooperative will be allocated 20 hectares, and the cooperative participant - partner-entrepreneur - 5 hectares of land. In this case, the entrepreneur partner is a progressive farmer or processor entrepreneur in the field and will be given 5 hectares of land for further encouragement. Thus, the businessman will be able to buy and store the products of fifty workers. For the development of cooperatives in the regions, support from the local budget is necessary in terms of infrastructure, such as electricity and road, as well as water supply.

Currently, based on experience in our republic, it is planned to create 31 cooperatives in 22 districts of the Fergana Valley with high unemployment and unused land reserves, in particular in Asaka, Kurgantepe, Ulugnor, Pakhtaabad, Boston, and the Pop region. The total cost of these activities is $24 million. Of these, $15.5 million was raised from international financial institutions. Low-income village residents become members of the cooperative on a share basis. Unemployed citizens entering it will be provided with 2.23 million soums from the Employment Support Fund. Or they provide a preferential loan of 30 million soums under the “Every Family is an Entrepreneur” program. With this money, members enter the authorized fund, and an advanced farmer, entrepreneur or real estate service enterprise, which will be their support, enters with 500-900 million soums or more. In this case, an advanced farmer, entrepreneur or real estate service organization will have 5 hectares of land at the site where the infrastructure is created. If the efficiency is good, then the land can be expanded later. As a result, new jobs will be created, the quality of agricultural products will improve, and exports will increase.

Cooperatives operating in the Republic of Uzbekistan have taught our peasants and farmers, representatives of the agricultural sector to work in a new way. A new production complex, combining the process from seeding to finished products into a single technological system, opens up a broad path to the rapid implementation of scientific achievements and new innovative technologies. This system is organized by agricultural entities on the basis of a voluntary association of property shares in order to satisfy their material and other needs in joint production or other economic activities. The development of cooperatives leads to the renewal of the country's infrastructure facilities. Agriculture will be enriched with new materials and equipment.

Today there are fruit and vegetable cooperatives in the republic. They were created in 5 regions, in total 43 fruit and vegetable cooperatives were created. The cooperative included 1,400 agricultural entities as founding members. Of the 1,400 cooperatives, 916 are farms with an area of 18.8 thousand hectares. Additional cooperative members include 18 processors, 15 exporters, 95 producers and 358 other agricultural businesses.

Clusters act as a form of cooperation in the republic’s agriculture. A cluster is a group of farmers, processors and exporters that unites all participants in the value chain towards one goal, covering processes from the production of raw materials to the delivery of processed finished products to the consumer. Uzbekistan has cotton-textile, grain and fruit-and-vegetable clusters. The total number of fruit and vegetable clusters in the republic: 245.
The area of land assigned to them: 179.2 thousand hectares. 15.3 thousand farms cultivate 147.9 thousand hectares of land on the basis of futures contracts for the cultivation of fruits and vegetables. The material and technical base includes processing enterprises with a capacity of 956.2 thousand tons in 62 clusters, sorting and packaging of products with a capacity of 290.5 thousand tons in 32 clusters, drying products with a capacity of 230.5 thousand tons in 23 clusters, There are simple and cold storage warehouses with a capacity of 360,000 tons. There are 24.5 thousand hectares of local, 10.8 thousand hectares of intensive gardens and 25.6 thousand hectares of vineyards. By 2022, the value of clusters will be $478 billion. It is planned to implement 71 projects worth 500 soums.

Fruit and vegetable clusters in the Kashkadarya region are LLC "Agro-Vostok" in the Kamashi district, Agrofirm "Sharofat ona Kahramon kyzy" in the Kitab region, LLC "Shakhrisabz Estate Service" in the Kitab region, "Abdul Akhat Akhmedivich" farm in Yakkabog. There are Arsenal Nur Baraka LLC in the Yakkabog region, Green in the Yakkabog region, Arsenal Nur Baraka LLC in the Yakkabog region, Bogizar Varganza Vineyards LLC in the Shakhrisabz region, and Marble Industry Kitob LLC in the Chirakchi region.

According to statistics, the share of vegetable products in all categories of agricultural and livestock products produced in the Kashkadarya region in 2020-2022 was 54%, and the lowest result was 11% for the production of grape products. Therefore, it is necessary to develop a competitive environment in vegetable growing and direct it for export, create productive varieties in viticulture and expand production online.

**Table 1.** Agricultural products by cities and districts of the Kashkadarya region (at current prices, billion soums).

<table>
<thead>
<tr>
<th>Name of city and district</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
<th>2023 January - September</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kashkadarya region</td>
<td>23777.8</td>
<td>28275.6</td>
<td>32240.7</td>
<td>27363.7</td>
</tr>
<tr>
<td>Karshi city</td>
<td>172.4</td>
<td>179.6</td>
<td>214.9</td>
<td>206.3</td>
</tr>
<tr>
<td>Shakhrisabz city</td>
<td>196.6</td>
<td>238.0</td>
<td>250.4</td>
<td>174.5</td>
</tr>
<tr>
<td>districts:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Guzor</td>
<td>1503.6</td>
<td>1785.3</td>
<td>2004.3</td>
<td>1822.0</td>
</tr>
<tr>
<td>Dekhkanabad</td>
<td>1096.9</td>
<td>1208.1</td>
<td>1295.4</td>
<td>1074.9</td>
</tr>
<tr>
<td>Kamashi</td>
<td>2186.2</td>
<td>2629.5</td>
<td>2894.1</td>
<td>2412.2</td>
</tr>
<tr>
<td>Karshi</td>
<td>1950.0</td>
<td>2364.9</td>
<td>2616.0</td>
<td>1953.6</td>
</tr>
<tr>
<td>Kaskan</td>
<td>2249.1</td>
<td>2685.5</td>
<td>3150.0</td>
<td>2569.6</td>
</tr>
<tr>
<td>Kitob</td>
<td>1971.9</td>
<td>2434.7</td>
<td>2487.5</td>
<td>2572.2</td>
</tr>
<tr>
<td>Mirishkor</td>
<td>1517.0</td>
<td>1863.3</td>
<td>2287.3</td>
<td>1683.6</td>
</tr>
<tr>
<td>Muborak</td>
<td>1117.3</td>
<td>1425.1</td>
<td>1620.9</td>
<td>1426.4</td>
</tr>
<tr>
<td>Nishan</td>
<td>1523.2</td>
<td>1842.7</td>
<td>2360.2</td>
<td>1843.2</td>
</tr>
<tr>
<td>Kasby</td>
<td>2028.3</td>
<td>2443.2</td>
<td>2950.0</td>
<td>2322.3</td>
</tr>
<tr>
<td>Kokdala</td>
<td>-</td>
<td>-</td>
<td>1692.7</td>
<td>1408.0</td>
</tr>
<tr>
<td>Chirakchi</td>
<td>3029.1</td>
<td>3209.2</td>
<td>2145.3</td>
<td>1866.7</td>
</tr>
<tr>
<td>Shakhrisabz</td>
<td>1522.7</td>
<td>1798.0</td>
<td>1994.9</td>
<td>1843.4</td>
</tr>
<tr>
<td>Yakkabag</td>
<td>1713.5</td>
<td>2168.5</td>
<td>2276.8</td>
<td>2184.8</td>
</tr>
</tbody>
</table>

If we analyze the data in the table above, then in 2022, the regional agriculture of the Koson region produced products worth 3,150.0 billion soums, while in the region this figure was 9.8%. This result shows an increase of 102.7% compared to 2021. During this period, the city of Karshi produced products worth 214.9 billion soums, which is 6.7% of the total volume. We see that this figure has increased by 114.8 percent compared to 2021.
As the history of world agriculture shows, throughout the entire industry “product production – service – supply – storage – preparation – processing – sales” are interconnected. There are existing problems, but they are being successfully solved step by step by establishing cooperative relations between business entities. Based on global cooperative practice and research results, the basic principles of the functioning of cooperative enterprises in cooperative relations have been developed and described (Figure 1).

![Basic principles of fruit and vegetable cooperation in agriculture](image)

**Fig. 1. Basic principles of fruit and vegetable cooperation in agriculture.**

The basic principles for the development of cooperation in cooperative relations in agriculture, described above, have been developed and scientifically substantiated.

For the continuous production of fruits and vegetables, their integration into cooperatives and increasing export potential, it is necessary to introduce innovative, resource-saving technologies into the network, introduce an integrated system of “Smart agriculture” and digitalization of the agro-industrial complex and technology.

Our country is implementing comprehensive measures aimed at actively attracting funds from international financial institutions to improve the fruit and vegetable sector, including a significant increase in the area under fruit and vegetable crops, storage and processing capacities, and the development of this industry is being implemented. According to the analysis, the volume of vegetable production in the republic increased in 2005-2020 in all categories of farms. Instead of 137.7 thousand hectares in 2005, the sown area of vegetable products by 2020 amounted to 220.5 thousand hectares, and the increase over these years was 155.1%. The average yield increased from 215.8 quintals to 301.6 quintals, and the overall increase was 140.6 percent. As a result, instead of 2971.6 thousand tons in 2005, the total volume of the harvest in 2020 amounted to 6650.3 thousand tons, and the gross increase was more than 2.2 times.

"One of our main goals is to export high-quality and certified products to the foreign market under the name "Uzbek brand" ". The action plan to ensure the competitiveness of fruits and vegetables grown in agriculture on world markets is recommended as follows (Figure 2).
Agricultural cooperatives play an important role in reducing agricultural costs, poverty and access to markets. It is necessary to manage the risks of cooperatives, increase their resilience to economic and environmental shocks, support small agricultural producers, increase the economic and social activity of members, and achieve sustainable employment and economics in rural areas.

Farmers and farms face risks such as yields and market volatility. Given the impact of these risks on their income, it is advisable to develop a risk management framework in agriculture. In the process, it was established that economic entities that are participants in the agricultural cooperative show positive results.
As a result, smallholder agricultural producers in cooperatives benefit from improved opportunities and services, including access to markets, access to natural resources, communications, technology, credit, training and storage.

4 Conclusion

In a word, agricultural cooperatives are a system of relationships that allows you to improve the quality of products and the profitability of the enterprise. Agricultural production is of great importance in the national economy. The level of its development determines the food security of the people and the well-being of rural life. In this regard, a qualitative assessment of the level of sustainable development of cooperatives in agriculture is very relevant.

It is necessary to improve the methodology for assessing the sustainable development of cooperatives, determine the main directions in it, take into account different points of view and opinions when solving this problem, as well as their in-depth analysis and systematization. Taking this into account, this work provides a comparative analysis of the specific approaches of different authors to the available methods for assessing the sustainable development of cooperatives in agriculture.

In our opinion, the sustainable development of cooperatives - sustainable development over the course of many years of activity of the cooperative is based on the mutual interaction of the sectors "production - service - supply - storage - procurement - processing - sales" to meet the needs of the members of the cooperative - this is a set of positive changes carried out through technology, aimed at it follows that it is necessary to evaluate the positive changes that have occurred in the development of agriculture. When “selling” you should take into account the balance in the margins. The difference between this definition and others is that it aims to maintain balance and proportion of the fields.

In our opinion, for the sustainable development of the cooperative it is necessary to implement the following priority tasks:

- In the sustainable development of an agricultural enterprise, the implementation of the concept of the production quadrangle: economic, social, financial and environmental directions of development.
- Classification of external factors of sustainable development of a cooperative, including new factors: cycles of economic development and agricultural policy that determine the goals and means of sustainable development, development of the main activities of the cooperative to achieve sustainable development goals.
- Improve the national legal framework for cooperatives for agricultural development and carry out the vertical and horizontal development of cooperatives for sustainable development.

Thus, by improving the fruit and vegetable sector the following will be achieved:

- Connections between fruits and vegetables are strengthened and large-scale production occurs.
- Food safety is largely ensured through local production.
- By attracting investments to modernize equipment and technologies at fruit and vegetable enterprises, the financial health of hazardous enterprises will be improved.

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