DEVELOPMENT OF A FRUIT AND VEGETABLE CLUSTER-COOPERATION

Ergashev Rakhmatulla Khidirovich
Professor of the Karshi engineering-economics institute, Doctor of Economical sciences. e_r_x_55@Rambler.ru
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Abstract
This article focuses on proposals and recommendations for the sustainable development of the country's fruit and vegetable products on the basis of cluster cooperation, the improvement of the fruit and vegetable industry in our country and the problems in organizing fruit and vegetable cooperation in the field of fruit and vegetable production and increasing its economic efficiency, as well as the development of fruit and vegetable cooperation in the future.

Keywords: fruit and vegetable, cooperative, cluster, cooperation, agro-industrial complex, efficiency, market, innovations, economic efficiency, competitiveness, marketing.

Аннотация
В данной статье основное внимание уделётся предложениям и рекомендациям по устойчивому развитию плодоовощной продукции страны на основе кластерной кооперации, совершенствованию плодоовощной отрасли в нашей стране и проблемам в организации плодоовощной кооперации в сфере плодоовощного производства и повышения её экономической эффективности, а также развитию плодоовощной кооперации в перспективе.

Ключевые слова: плодоовощной, кооператив, кластер, кооперация, агропромышленный комплекс, эффективность, рынок, инновации, экономическая эффективность, конкурентоспособность, маркетинг.

Аннотация
Ушбу мақолада мамлакатимиз мева-сабзавот маҳсулотларини кластер кооперацияси асосида барқарор ривожлантириш бўйича таклиф ва тавсиялар, мамлакатимизда мева-сабзавотчилик тармогини такомиллаштириш ҳамда мева-сабзавотчилик соҳасида мева-сабзавот кооперациясини ташкил этишдаги мусаммаларга алоҳида эътибор қаратилган. ва сабзавот етиштириш ва унинг иқтисодий самарадорлигини ошириш, келгусида мева-сабзавот кооперациясини ривожлантириш.

Калит сузлар: мева-сабзавотчилик, кооператив, кластер, кооперация, агросаноат мажмуаси, самарадорлик, бозор, инновациялар, иқтисодий самарадорлик, рахбатбардошлик, маркетинг.

Introduction
The future development of the economy of Uzbekistan, including the fruit and vegetable sector, is directly related to the processes of globalization and integration into the world economy, and this integration causes the problem of international competition. The tightening of domestic demand in the country puts fruit and vegetable producers in a more
difficult position. As a result, product suppliers compete with foreign competitors in two ways: to maintain their positions in the domestic market and to enter a new foreign market.

In the Republic of Uzbekistan, fruits and vegetables are mainly grown in the private sector, and farms and farms, today an increase in the number of large-scale horticultural enterprises leads to increased competition between private farms of the horticultural industry own 75-85 percent of them. In such a system, there are a large number of vegetable products that ripen seasonally and in many cases inconvenient for transportation. In order for small farmers and farms to participate in competition, it is important for them to join the cluster cooperation.

Decree of the President of the Republic of Uzbekistan dated October 23, 2019 No. PD-5853 "On approval of the Strategy for the Development of Agriculture of the Republic of Uzbekistan for 2020-2030" [1], as well as "Measures for the development of agricultural cooperation in the field of fruit and vegetable production" dated March 14, 2019 Presidential resolution PR-4239 [2] provides for the creation of specialized cooperatives on the basis of farms and peasant farms operating in regions with developed fruit and vegetable production and increasing their efficiency.

Also, Presidential Resolution No. PR-4549 dated December 11, 2019 “On additional measures for the further development of the fruit and vegetable and viticulture industry and the creation of a value chain in the industry” [3] on production, storage, processing, etc. is the need to introduce advanced technologies in the field of sales and stimulate the development of cluster cooperation between manufacturers of these products and improve their efficiency.

On this occasion, in the implementation of the tasks defined in other regulatory legal documents related to this activity, in order to strengthen the country's food security, improve the quality of food products, create conditions for improving the system of trade in products, organizing production in agriculture and cluster production of products - organization, based on the principle of cooperation, is becoming more widespread in the world.

**Analysis of literature review on the topic**

Many foreign scientists, in particular, Russian economist A. V. Chayanov, describe the economic essence of cooperation as a relationship that ensures the common economic interests of economic entities that combine their activities independently. The economist mentioned that the main attention here should be focused not on property, but on serving the interests of integration into cooperative relations.

According to A. V. Chayanov, "Capital is not the boss in a cooperative, but rather a servant. It is emphasized that the cooperation should help the farmer not only to ensure profit, but also to improve his knowledge and skills" [4].

It is shown that the basis of the important economic essence of cooperation is the principle of free subjects to join the cooperation, democracy in the management of cooperative relations, and the principle of economic justice in the distribution of the profit obtained as a result of cooperation. Even today, in the tariff given by A.V.Chayanov to the essence of the agricultural cooperation, the cooperative's producers of small goods in agriculture, without losing their status as an independent economic entity with their own balance sheet, together more the fact that it is a question of cooperation for the sake of economic efficiency has not lost its importance. Among economists, the economic essence of cooperation has been given different rates. For example, I.N. Buzdalov, "Cooperation is the joint activity of various economic entities, which combines personal, collective and social
interests, and stimulates the creative work of individuals. At the same time, together with the social guarantee of a person, it provides social protection"[5].

Also, M.I. Tugan-Baranovsky [6] focused on the forms of cooperation and the social aspects of the cooperation process and interpreted it as a social movement, while A.V. Chayanov researched the economic aspects of cooperation in his work, focusing on small producers of goods. and the economic and social nature of cooperation is interpreted from the point of view of that time.

It is shown that the material and technical base of small individual farmers' farms is very weak, and the low level of marketability of products has led to the fact that farms operate more as social subjects than economic ones and is an obstacle to the process of cooperation. According to R.Kh. Ergashev, an economist studying the general problems of fruit and vegetable cooperatives in Uzbekistan, agricultural cooperatives are organized by producers of agricultural goods to meet their economic and other needs. the system of agricultural cooperatives and their partners. "Agricultural cooperative is one of the organizational and legal forms of running an economy. It involves meeting the material and other requirements of cooperative members by producers of agricultural goods. In our opinion, the tariff "[7] refers to cooperative production and other economic activities based on the integration of share contributions" [7].

In their works, the issues of economic efficiency of fruit and vegetable products were considered in detail, the methods of evaluating the level of efficiency, directions and ways of increasing it were studied. However, despite the discussion of many problems, scientists have not been able to agree on the organizational and economic basis of fruit and vegetable cooperation. A more in-depth study of the problem of cooperation of fruit and vegetable products requires a comprehensive economic assessment of the development reserves of fruit and vegetable processing and storage enterprises and rational scientific and innovative approaches to the organizational and economic foundations of cooperation of fruit and vegetable products.

One of the foreign agroeconomists characterizes the economic essence of cooperation as a relationship that ensures the commonality of the economic interests of various economic entities that independently combine their activities in solving the economic problems of the development of the horticultural sector and the development of a cluster-cooperative and integration process in agriculture. The author emphasizes here that the main attention should be directed to serving the interests of independent entities entering into cooperative relations, and not property.

At the same time, despite the significance of these works in the development of the theory and practice of cluster-cooperative production in agricultural enterprises, the issues of the formation and adaptation of a fruit and vegetable cooperative to international experience are not fully disclosed in them. Insufficient theoretical and methodological development of the problems of formation of cluster-cooperative production of agricultural products.

**Research Methodology**

As a result of the conducted scientific research, proposals and recommendations were made regarding the issues of fruit and vegetable cluster development and increasing their efficiency. Systematic approach, abstract-logical thinking, comparison, factor analysis and comparative analysis methods were used in the research process.

**Analysis and results**
Cluster cooperatives of fruit and vegetable products differ from other cooperatives in that producers of agricultural products form them.

Comprehensive measures are being taken in our country aimed at actively attracting funds from international financial institutions to improve the fruit and vegetable industry, including a significant increase in the acreage of fruits and vegetables, storage and processing capacities, and the development of this sector is being implemented.

According to the analysis, the volume of vegetable cultivation in the republic increased in 2005-2020. For all types of farms. Instead of 137.7 thous. The average yield increased from 215.8 q to 301.6 q, and the overall increase was 140.6%. As a result, instead of 2971.6 thousand tons in 2005, the total volume of the harvested crop will amount to 6650.3 thousand tons in 2020. Gross growth was more than 2.2 times.

The trend of gross growth in the republic in the field of vegetable growing is proportionally observed in the Kashkadarya region. For example, in 2005 the total area of growing vegetables in the region was 28.1 thousand hectares, and by 2020 it increased by 38.1 thousand hectares or 128.8%, and the volume of gross output grown from 549.3 thousand tons to 810.3 thousand tons. per ton or increased by 142.0 percent. High growth rates of gross output occurred due to faster growth in crop yields than growth in sown areas. The yield of vegetable crops in the region compared to the all-Russian indicator in the studied years was in different proportions; mainly after 2005 it decreased by 29.5%.

In coordinating the activities of enterprises for the production, processing and storage of fruits and vegetables, the trade sector is the closest link to the consumer and is constantly aware of changes in market demand for products. A cluster-cooperative system should be created that places an order with the manufacturer and delivers the product to the buyer in a freshly cut or processed quality product.

Therefore, fruits and vegetables achieve certain results in today's production, storage and processing of cluster cooperatives.

The creation of a fruit and vegetable cluster of cooperation should be carried out at the expense of economic support within the framework of cooperation.

At the end of 2019, the cluster-cooperative "Panji kishmishzorlari" of the Kitob district, whose socio-economic activity was studied, reached 75.1 centners of productivity in horticulture and viticulture and 87.3 centners in 2020 (table -1).

### Table-1

**Economic indicators of the cluster-cooperative "Panji Kishmishzorlari" of the Kitob district of the Kashkadarya region**

<table>
<thead>
<tr>
<th>Types of crops</th>
<th>Total area of land (crops), (ha)</th>
<th>Harvested area, (ha)</th>
<th>Average yield, (c. ha)</th>
<th>Gross assembly quantity, (tons)</th>
<th>Gross harvest in 2010 compared to 2020, (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gardens</td>
<td>2380</td>
<td>3757</td>
<td>1679</td>
<td>3129</td>
<td>75,1</td>
</tr>
<tr>
<td>Grapes</td>
<td>4780</td>
<td>4419</td>
<td>2545</td>
<td>3810</td>
<td>67,1</td>
</tr>
<tr>
<td>Vegetables</td>
<td>1773</td>
<td>1456</td>
<td>1773</td>
<td>1456</td>
<td>256,4</td>
</tr>
<tr>
<td>Potatoes</td>
<td>1953</td>
<td>1149</td>
<td>1953</td>
<td>1149</td>
<td>116,1</td>
</tr>
<tr>
<td>Corn</td>
<td>7617</td>
<td>5306</td>
<td>7617</td>
<td>5306</td>
<td>42,5</td>
</tr>
</tbody>
</table>

1. Developed by the author on the basis of information from the Panji kishmishzolari cooperative of the Kitab district of the Kashkadarya region.

http://iqtisodiyot.tsue.uz/journal
In 2019, GREEN ATR KLASTER in Yakkabog district achieved an average yield of 81.6 centners in horticulture and viticulture, and by 2020 this figure reached an average of 113.7 centners. were grown in 2020.

### Economic indicators of "GREEN ATR KLASTER" in Yakkabog district of Kashkadarya region

<table>
<thead>
<tr>
<th>Types of crops</th>
<th>Total area of land (crops), (ha)</th>
<th>Harvested area, (ha)</th>
<th>Average yield, (c. ha)</th>
<th>Gross assembly quantity, (tons)</th>
<th>Gross harvest in 2010 compared to 2020, (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gardens</td>
<td>1247</td>
<td>3102</td>
<td>1158</td>
<td>1951</td>
<td>81,6</td>
</tr>
<tr>
<td>Grapes</td>
<td>1019</td>
<td>614</td>
<td>970</td>
<td>612</td>
<td>120,5</td>
</tr>
<tr>
<td>Vegetables</td>
<td>2033</td>
<td>1241</td>
<td>2033</td>
<td>1241</td>
<td>210,3</td>
</tr>
<tr>
<td>Potatoes</td>
<td>1489</td>
<td>754</td>
<td>1489</td>
<td>754</td>
<td>141,5</td>
</tr>
<tr>
<td>Corn</td>
<td>9960</td>
<td>11577</td>
<td>9960</td>
<td>11577</td>
<td>60,8</td>
</tr>
</tbody>
</table>

The results achieved over the past 10 years in vegetable growing are also positive: in 2010, 42,747 tons of products were grown with a yield of 210.3 centners; by 2020, 46,970 tons of products were grown with a yield of 254.5 centners. In this GREEN ATR KLASTER, potato cultivation in 2020 increased by 140.36% compared to 2010, instead of 21,063 tons of potatoes in 2010, 26,565 tons of potatoes grown in 2020.

If we analyze the indicators of economic efficiency of clusters-cooperatives in the field of fruit and vegetable production in Kashkadarya region, then in 2010, 10,421 tons of crops harvested from the orchards of GREEN ATR KLASTER, and the average yield of orchards was 81.6 centners. By 2020, the yield amounted to 113.7 centners, the volume of grown products - 22193 tons (Table 2).

In particular, the share of vegetable crops in 2000 was 4.5% of the total sown area, and by 2018 it was 7.3%. This will create an opportunity to make wider use of the region's opportunities for the development of vegetable growing. At the same time, the increase in the number of harvested fruits in orchards is an important factor accelerating the return on investment in the horticultural industry.

Increasing the productivity of fruit and vegetable farming is one of the main directions in ensuring economic efficiency and is manifested as a result of a number of important activities carried out at the country level and at the level of an economic entity. Among the most important such activities are the popularization of breeding work, the establishment of logistics for economic entities, the timely and high-quality implementation of agrotechnical measures, the placement of crops, taking into account soil conditions and climate characteristics.

### Conclusions

Scientifically substantiated proposals and recommendations for the development of fruit and vegetable cluster-cooperation cooperation:

- Restoration of unproductive and low-yielding orchards and vineyards;

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It was developed by the author based on the information of "GREEN ATR CLUSTER" in Yakkabog district, Kashkadarya region.
➢ creation of a system for growing intensive fruit trees and vine seedlings suitable for soil and climatic conditions, and their further sale to business entities;
➢ Encouragement of authors and organizers of new varieties of fruits and vegetables, protection of business entities involved in seed production and nursery, creation of a mechanism for certification of seedlings and seedlings;
➢ taking measures to import into the territory of the republic varieties of vegetables and fruits that are in high demand on the world market and suitable for the soil and climatic conditions of the republic, from countries with developed seed production;
➢ Creation of high-yielding, frost-resistant and seedless varieties of vegetables and fruits, introduction of promising varieties;
➢ development of a methodology aimed at improving the nursery system in fruit and vegetable growing;
➢ in order to improve agro technical measures in fruit and vegetable growing, localize the production of special equipment used in vineyards in the republic and introduce a system of long-term lease on preferential terms;
➢ ensure the creation of new orchards and vineyards based on pure varieties and virus-free seedlings;
➢ Ensuring the production of quality products through the introduction of modern agro technical measures in fruit and vegetable farms.
➢ The main directions of development of the fruit and vegetable industry are defined as follows:
➢ determination of optimal areas in favorable regions for specialization in fruit and vegetable growing;
➢ development of viticulture as a national culture based on the national culture of agriculture and the values of our people, formed over the centuries;
➢ Creation of a value chain in the field by growing fruits and vegetables on large areas in a cluster and cooperative method, promoting the storage, sorting and processing of grapes;
➢ Expansion of exports by creating national brands of fruit and vegetable varieties and entering new markets;
➢ in the fruit and vegetable direction, “the best grape variety”, “the best intensive vineyard”, “the best local grape variety”, “the best wine product”, “the best vegetable variety”, “the best intensive vegetable”, “the best for creating a republican examination competition, held in nominations such as "vegetable variety";
➢ availability of infrastructure facilities necessary for its functioning (on the rights of ownership or use or full ownership), as well as qualified personnel and other means, as well as financial stability;
➢ develop a scientific school of fruit and vegetable technology in order to grow fruit and vegetable products on a scientific basis, create new productive, seedless varieties, and establish a comprehensive integration of science and production;
➢ Based on the soil and climatic conditions of the regions, create a full cycle of growing vegetables and fruits, drying, packaging, processing, production of finished products and exports, create viticulture and vegetable clusters;
➢ business plan or feasibility study for the implementation of investment projects for growing, packaging, sorting, processing and introducing resource-saving technologies;
➢ Infrastructure facilities necessary for its operation (on the rights of ownership or use or full ownership), as well as the availability of qualified personnel and other means and financial stability.

List of used literature

2. Postanovlenie Prezidenta Respubliki Uzbekistan PP-4239 ot 14 marta 2019 goda «O merax po razvitiyu selskoxozyaystvennoy kooperasii v oblasti plodoovoshnogo proizvodstva»
3. Postanovlenie Prezidenta Respubliki Uzbekistan PP-4549 ot 11 dekabrya 2019 goda «O dopolnitelnyx merax po dalneyshemu razvitiyu plodoovoshnoy i vinogradarskoy ostrasli i sozdaniyu sepochki dobavlennoy stoimosti v ostrasli»