

RESEARCH ON THE PRODUCTIVITY OF FRUIT AND VEGETABLE CLUSTERS.

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Annotation: *The article discusses the importance of fruit and vegetable clusters in the agricultural sector of the economy, the issues of improving the management mechanisms of fruit and vegetable clusters. The importance of agrarian policy in deepening reforms aimed at the cultivation of agricultural products and its processing is also pointed out. The system of indicators in the study of the effectiveness of fruit and vegetable clusters has been analyzed.*

Keywords: *Entrepreneurship, cluster, region, development, production, processing, fruit and vegetable growing, world market, foreign experience, management.*

MEVA-SABZAVOTCHILIK KLASTERLARIDA UNUMDORLIKNI O'RGANISH

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*Farg'ona davlat universiteti, Jahon va mintaqqa
iqtisodiyoti kafedrasida katta o'qituvchisi*

Annotatsiya: *Maqolada iqtisodiyotning qishloq xo'jaligi sohasida meva-sabzavotchilik klasterlarining ahamiyati, meva – sabzavot klasterlarini boshqarish mexanizmlarini takomillashtirish masalalari yoritilgan. Shuningdek, qishloq xo'jaligi mahsulotlarini yetishtirish va ularni qayta ishlashga qaratilgan islohotlarni chuqurlashtirishda agrar siyosatini olib borilishining ahamiyati ko'rsatib o'tilgan. Meva-sabzavotchilik klasterlarini samaradorligini o'rganishdagi ko'rsatkichlar tizimi tahlil qilingan.*

Kalit so'zlar: *Klaster, mintaqqa, rivojlanish, ishlab chiqarish, qayta ishlash, meva – sabzavotchilik, jahon bozori, xorijiy tajriba, boshqaruv.*

ИССЛЕДОВАНИЕ ПРОДУКТИВНОСТИ ПЛОДОВООЩНЫХ КЛАСТЕРОВ

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Аннотация. В статье рассматривается значение плодовоощных кластеров в сельскохозяйственном секторе экономики, вопросы совершенствования механизмов управления плодовоощными кластерами. Также указывается на важность проведения аграрной политики в углублении реформ, направленных

на выращивание сельскохозяйственной продукции и переработку их. Проанализирована система показателей в исследовании эффективности плодовоовощеводческих кластеров.

Ключевые слова. Кластер, регион, разработка, производство, переработка, плодовоовощеводство, мировой рынок, зарубежный опыт, управление.

Currently, in the world practice, one of the priority areas is to analyze the processes of growing fruit and vegetable products using statistical methods, econometric evaluation of the factors affecting it, and development of forecasts. Comprehensive measures aimed at growing, storing, processing and exporting fruit and vegetable products are being rapidly implemented in Uzbekistan. Application of advanced technologies of product cultivation, introduction of modern methods of storage and processing of products serves to prevent shortage of food products as well as sustainable development of the fruit and vegetable sector. The expansion of the cultivated areas and the increase of the gross yield imposes great tasks on the specialists of the field. At the same time, the analysis of best practice in the field of production, storage, processing and sale of fruit and vegetable products shows that there is a need to effectively encourage the development of cooperation of producers of these products.

It is known from the experience of foreign countries that in the social life of any country, meeting the demand for food and agricultural products, which are the primary needs of the population, and determining the most effective and correct way in this regard, ensures the welfare of the people. is an important factor of provision. Therefore, in the field of agriculture, the organization and development of fruit and vegetable clusters is considered as an important strategic direction of increasing the volume of production of fruit and vegetable products, increasing the level of efficiency of the industry, and the rapid and sustainable development of the sector. In addition, at present, clusters are considered to be a mechanism for ensuring the competitiveness of the country's economy and drivers of economic growth. The rapid increase in the number of clusters in developed and developing countries of the world also indicates their high efficiency. In particular, according to Michael Porter, the founder of the cluster theory, the country's competitiveness should be considered through the prism of the international competitiveness of clusters, not its individual firms, but the association of firms in different fields, and the potential of these clusters to effectively use internal resources is important. Currently, clusters cover about 50% of the economy of the world's leading countries. For example, the number of clusters in the USA is 380, and it unites more than half of the large enterprises operating in the country. 60 percent of the country's GDP corresponds to the share of these clusters. For example, 43% of those employed in the industry in Italy work in 206 clusters, and more than 30% of the country's exports are accounted for by these clusters. Clusters are given a lot of attention in the macroeconomic policy of Finland. In particular, the

production of wood processing, paper products, mobile communication equipment, and telephones is fully under the control of clusters, and these industries occupy a leading position in the country's exports. There are more than 60 types of special clusters in China, which unite about 30,000 enterprises. These enterprises, which employ 3.5 million people, produce products worth 200 billion US dollars a year. In the economy of Uzbekistan, the development of private entrepreneurship and the formation of a system of clusters is becoming more and more important. The careful formation of clusters in all sectors and regions allows to turn them into a tool that contributes to the economic development of the country. In particular, the formation of clusters in agro-industry remains an integral part of the country's development strategy. In this area, clusters are considered as a factor in the creation of complexes such as production and deep processing of agricultural products, animal husbandry, fisheries, competitive high-tech and exportable textiles, food production. On this basis, consistent economic reforms in the agricultural sector are one of the most urgent issues for meeting the population's demand for quality food products, as well as fundamentally improving this process by making it equal to world standards. The structural and structural changes in the field of agriculture implemented in Uzbekistan in recent years have an important impact on the development of the national economy, solving the problems of providing the population with fruit and vegetable products and exporting them to the world market, and strengthening social stability. is showing. Decree of the President of the Republic of Uzbekistan "On the new development strategy of Uzbekistan for 2022-2026" dated January 28, 2022 No. Decision No. PQ-225 dated April 4, 2022 "on additional measures", "On measures to further develop the system of cluster and cooperation in the network, support of the state in the field of fruit and vegetables" It serves to a certain extent the implementation of the tasks specified in the Resolution No. 52 of December 15, 2021 and other regulatory legal documents related to this activity. One of the important aspects of the adopted decisions is that not only product manufacturers, but also foreign trade organizations that assist domestic manufacturers in exporting products abroad will create equal conditions for export activities. At the same time, in order to increase the productivity of agricultural products grown by fruit and vegetable clusters on a cooperative basis, to provide the needs of domestic and foreign markets with high-quality products, with a number of scientific research institutes and business entities operating in this field comprehensive cooperation was established. In turn, this creates the basis for the repeated increase of agricultural products. Research shows that until now, a single system for evaluating their effectiveness has not been developed, but a number of studies are being conducted. Based on this, it is appropriate to consider the method of evaluating the efficiency of the agro-industry cluster. For this, the following indicators are selected that fully reflect the specific characteristics of efficiency:

- the growth of the industrial sector (comparative assessment of the growth rate of the gross industry with the growth rate of the economy as a whole);

- the growth of the cluster network (comparing the growth rate of the volume of products produced by clusters with the growth rate of the corresponding industrial network, the share of the volume of products produced by clusters in the gross regional product and the economic return of investments directed to clusters (profitability level) is to evaluate.

Since clusters are at the initial stage of formation in Uzbekistan, it is appropriate to choose a cluster growth approach that analyzes the growth rate of the volume of products produced by the clusters with the growth rate of the corresponding industry. Based on this, to evaluate the effectiveness of clusters in the cotton-textile and fruit-vegetable industries, labor productivity, export share, investment profitability, and the Comparative Advantage Index are used. To calculate labor productivity in the cluster system, a formula is used to divide the volume of products and services developed in a certain period of time by the number of employees involved in production. According to the data, the largest share in the structure of industrial production corresponds to the contribution of the manufacturing industry (83.2 percent). During January-December 2022, 458.2 trillion soum worth of products were produced in this industry. The share of production of textile products, which is currently important in this industry, is 13.7%, the share of clothing production is 3.8%, and the share of food production is 13.0%.

The cotton-textile and fruit-vegetable clusters operating in Uzbekistan are being formed within this production industry. Therefore, the efficiency of reforms is analyzed by evaluating the level of clustering in this network.

The system of cotton-textile and fruit-vegetable clusters has been introduced in Uzbekistan since 2017. As a result, in 2017-2022, a total of 506 clusters were formed in these areas in the country. In 2022, they produced industrial products worth 28.7 trillion soums.

At the same time, labor productivity in the cluster system increased 12.9 times between 2018 and 2022. This indicator was 6.4 times in the industry's processing network. Therefore, labor productivity in clustering was 2 times higher than in other sectors. Also, during 2022, a total of 245 fruit and vegetable clusters will operate in the Republic of Uzbekistan and regions, and 179.5 thousand hectares of land will be allocated to them. Fruits and vegetables grown in these clusters are being worked on with 15,300 farms on the basis of futures contracts for fruit and vegetable production on 147,900 hectares of land. Also, 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 of products with a capacity of 230.5 thousand tons in 23 clusters, and in 136 clusters normal and refrigerated warehouses with a capacity of 360,000 tons are operating. The number of intensive orchards and vineyards created by this is 24,500 hectares of local, 10,800 hectares of intensive orchards and 25,600 hectares of vineyards. In 2022, the value of investment projects in the development of fruit and vegetable clusters will be 478 billion. 71 projects

worth soums were implemented, as a result of which about 500 jobs were created. In addition, the analysis shows that, along with labor productivity, the level of return on directed investments is higher in clusters than in the network. According to calculations, the coefficient of economic return (rate of profitability) of investments directed to clusters increased from 1 to 1.4 in 2018-2022. This shows that clustering projects are very effective. To assess the position of a number of clusters in the economy of the country or region, the integrated index of cluster power (P_c) is recommended. In this, one can find an answer to the question of the degree to which a certain branch of industry is clustered. Therefore, it is appropriate to systematize the indicators as follows:

- production coefficient of industrial products of clusters (K_{pa});
- coefficient of investment activity of clusters (K_{ia});
- coefficient of export activity of clusters (K_{exp});
- Employment ratio of labor resources in clusters (K_{epm});
- crop area coverage coefficient of cotton-textile and fruit-vegetable clusters (K_{land}).

Gross indicators of fruit and vegetable crop areas were taken to determine the crop area coverage coefficient of clusters.

Based on the above systematized indicators, the coefficients are calculated and the level of clustering in the network is determined. Thus, the aggregated Cluster power (P_c) integral index describes the socio-economic efficiency of the cluster in the production network of the industry and its role in regional labor distribution. This index is calculated as the arithmetic mean of the sum of the five proposed coefficients. Through this index, it is possible to observe the dynamics of cluster development and its place in the economy of a certain industry or region. This index fully reflects the socio-economic importance of the cluster as an economic unit. Each index value is evaluated in the range from 0 to 1 ($0 \leq P_c \leq 1$). If the index of cluster power (P_c) approaches 0 to 1, it indicates a high level of clustering of the economy of the sector or region. Calculations showed that the cluster power (P_c) integral index in the agro-industry production network is 0.201. This indicator indicates that the clustering level or coverage is not high on this network.

The experience of the developed countries of the world shows that clustering leads to higher competitiveness in the network and regional economy by increasing labor productivity and efficiency indicators. Clustering in the agricultural sector allows to form a complete systematic stage from raw materials to finished products, as well as to integrate such fields as science, trade, and logistics into this system.

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