



About Formation of Agrarian Clusters in Uzbekistan

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Abstract

Currently, for Uzbekistan, the issue of transferring the economy of the country and its regions to an innovative path of development is urgent. An important aspect in creating an innovative economy at the regional level is the formation of a cluster model for its development. The globalization of the agrarian economy demanded a search for new directions for the efficiency of agricultural production in Uzbekistan. The formation of clusters in the economies of many developed countries took place in an evolutionary way based on the emerging relationships between business entities. One of these areas is the formation of fruit-bearing clusters. The article examines the formation of fruit and vegetable clusters in Uzbekistan. The indicators of the area of land, production, processing, storage, sale of fruit and vegetable clusters operating in the regions are analyzed. The area of land and production indicators in the directions of the formation of fruit and vegetable clusters in the regions are analyzed. Conclusions and recommendations were developed on the basis of the conducted research.

Keywords: *Region; Development; Subject; Dynamics; Factors, Industry; Fruits and Vegetables, Cluster; Conceptual Approach; Technology; Cluster Model; Type of Clusters; Area; Production; Processing; Sale; Import; Export*

Introduction

The share of agriculture, forestry and fisheries in the GDP of Uzbekistan is 28.2% (2020). The share of agricultural products in the volume of agricultural production is 49.5%, and livestock - 50.5%. World experience shows that it is expedient to form and develop agricultural clusters, especially in regions where agricultural production provides a significant share of gross regional product (Urdushev, Eshankulov, Mavlyanov: 2021). In recent years, as in all developed countries, clustering in Uzbekistan is developing as a field of practice. Many cluster projects are being implemented in different regions of the country. In 2017, the establishment of cotton-textile, fruit and vegetable, grain, rice, livestock, fisheries and silkworm clusters in the agricultural sector began.

Naturally, the formation and development of new clusters in the context of Uzbekistan requires scientific, methodological and practical justification. Shortcomings in the analytical support of cluster organization processes lead to unreasonable decisions by government agencies. As a result, state support of clusters does not yield the expected results. Therefore, research on this topic is one of the most pressing issues today.

The Main Findings and Results

In Uzbekistan, the clusters of “cotton and textiles”, “fruits and vegetables”, “livestock”, “silk” are considered as a modern form of organization of production in agriculture and animal husbandry. Issues of clustering in Uzbekistan have been studied in the monographs of G.Zohidov and M.Rakhmatov, B.Zaripov, A.Burkhanov and others, M.Tashboltaev, N.Makhmasobirova, Sh.Mustafakulov and the authors of this article (Eshanqulov, Urdushev : 2019).

Cluster structures are more adapted to the new economic conditions, help to increase the competitiveness of the region's agriculture and ensure its innovative development. The basis for the economic growth of the agro-industrial complex requires the existence of a basic conceptual model of the fruit and vegetable cluster and the rules of its formation. He suggests the following for fruit and vegetable clusters (Eshanqulov, Urdushev: 2019)

First, the main idea of science-based approaches, the application of innovative solutions, the creation of conditions for the dynamic development of agriculture on the basis of cooperation between the participants, the formation of a fruit and vegetable cluster.

Second, the structure of the fruit and vegetable cluster is determined on the basis of business process management, the formation of a value chain for the consumer of agricultural products, taking into account the maximum use of the potential of regional localization of cluster participants.

Third, the core of the agro-cluster consists of firms and enterprises that can ensure its economic success through cooperation. The core of the enterprise ensures the implementation of the bulk of business processes and the development of other participants in the cluster.

Fourth, the raw material sector of the core of the fruit and vegetable cluster are agricultural enterprises, which at the initial stage of the business process determine the welfare of the whole cluster through the production of competitive agricultural raw materials.

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The formation of clusters depends on the initiative of the state and private enterprises. There are such strategies (Mochalnikov, Anokhina, Korostelev: 2014): Horizontal: several industries are involved; Vertical: a chain of interconnected enterprises in a phased production; Technological: one technology is used in several industries; Focus: focusing on one enterprise; Geographic: concentration in a particular region or extending to the interregional level. Regardless of the initiator of creation, there are a number of factors that significantly affect cluster development: the economic and geographical factor is determined by the location of interconnected enterprises within the full production cycle and proximity to the most important markets for finished products; Historical factors such as socio-cultural traditions and historical production; marketing factors are expressed in the existence and preservation of the region's brand and in the stable market demand for manufactured products and services; factors of the internal environment: the presence of the necessary functional units at the enterprise, the socio-psychological appearance of the population and its self-identification; the technological factor is the established research and production potential of the region; factor of state participation. With the support of the state, it is possible to expand the scientific base, obtain benefits and additional funding, and establish contact with the local population.

The overall economic sustainability of enterprises in the cluster is achieved through access to resources, transfer of knowledge and technologies, partnerships, and the formation of a special configuration of property rights to various objects, ensuring their more efficient use (<https://agbz.ru/articles/mirovyie-i-rossiyskie-trendyi-v-pererabotke-plodov-i-ovoschey/>) In turn, increasing the stability of economic entities in the region creates the basis for regional economic dynamics. Tax revenues to the regional budget are increasing, the material and technical base of the region is improving, and its investment attractiveness is increasing

In general, about a third of vegetables and fruits are processed in the world (Studme.org). It is noted that the more developed the economy is, the higher the share of vegetables and fruits is sent for processing. So in the USA up to 50% is processed, in the EU - about 20%, in France - 20%, in Sweden - about 17%, in Belarus - 10%. In Russia, according to various estimates, 15-25% of harvested vegetables and fruits are processed.

Results and Discussions

Numerous economic studies on the clustering processes of the economies of different countries cite six models of cluster formation (president.uz).

1. Italian model. It is distinguished by a large number of small firms, united in various associations to increase competitiveness. This model is applicable to products of a low technological level with a high degree of differentiation and fluctuations in demand.
2. The Japanese model is formed around a leading firm with large-scale production, integrating a lot of suppliers at various stages of the chain. Suitable for the production of technologically complex products. Product development requires high fixed costs, which can only pay off with a large volume of sales.

3. The Finnish model is characterized by a high level of innovation, supported by a powerful research and development sector, a developed education system, and business internationalization. It is most applicable for small compact countries with a relative scarcity of natural resources and export-oriented.
4. The North American model is distinguished by pronounced competition between enterprises, it is applicable if the production process does not imply the establishment of close relationships. Due to the competition between suppliers in the cluster, as well as due to mass production at the head office, a low cost of the final product is achieved.
5. The Indian-Chinese model. The state plays a key role. The main emphasis is placed on foreign investments, bringing modern technologies and providing access to world markets.
6. The Soviet model. Market relations and competition are minimized, production is concentrated in large firms. It is applicable in the resource industries of regions with a low population density and underdevelopment.

There are 135 cotton-textile, 157 grain-growing, 146 fruit and vegetable clusters and 25 other clusters in Uzbekistan.

According to the Ministry of Agriculture of the Republic of Uzbekistan, in 2019 there were 56 fruit and vegetable clusters in the country, in 2020 this figure was 146, and 116 thousand 24 hectares of land were allocated to them. 10033 farms with 85,524 hectares of arable land are attached to the clusters. Fruit and vegetable clusters have 75 processing plants with a capacity of 927.8 thousand, 79 refrigerated warehouses with a capacity of 126 thousand tons, equipped with a total of 1151 agricultural machinery and equipment.

There are 28.9 thousand hectares of local, 10.8 thousand hectares of intensive gardens and 19.7 thousand hectares of vineyards on the land belonging to the clusters. Farms attached to the clusters have planted 3.2 thousand hectares of intensive gardens and 5.3 thousand hectares of new vineyards, creating 4.2 thousand new jobs. In recent years, 84 new projects with a capacity of 331.1 thousand tons worth 1.11 trillion soums have been launched. Fruit and vegetable clusters play a special role in increasing the country's export potential. 1.2 million by 2020 in clusters. tons of agricultural products, of which 526.6 thousand tons were directed to domestic consumption, 500 thousand tons to processing, 180.4 thousand tons of products worth \$ 153.7 million were exported. Studies show that fruit and vegetable clusters in Uzbekistan are organized in the forms "*Independent*" (first direction), "*Preparation and processing*" and "*Mixed*" (second direction). At present, there are 11 "*Independent*", 16 "*Mixed*" and 120 "*Preparation-processing*" clusters in the Republic.

Fruit and vegetable clusters, operating in the form of independent clusters, consist of a set of buildings, structures, equipment and other facilities required for the cultivation, preparation, processing, storage, sorting and transportation of agricultural products, sale and production of finished products infrastructure.

Fruit and vegetable clusters operating in the form of procurement and processing carry out "procurement-processing-sale" operations by purchasing fruit and vegetable products produced by farmers and dehkan farms on a contractual basis.

Fruit and vegetable clusters operating in a mixed form purchase fruits and vegetables grown on their own land and on farms, dehkan farms (landowners), cooperatives, agro-firms, and other agricultural enterprises on a contractual basis - production, processing, sorting, packaging, storage, processing and sales activities are carried out on the basis of production - processing - sales chain.

The total land area attached to fruit and vegetable clusters in Uzbekistan is 30,102 hectares, of which 18,600 hectares or 61.8% are accounted for by processing and processing, 7,309 hectares or 24.3% by independent clusters and 4,193 hectares or 13.9% by mixed clusters. . 20,651 hectares or 68.6% of the total land area attached to the clusters belong to the farms attached to the clusters. The area of clusters is 31.4% of the total land area attached to them.

With independent clusters, the existing 48,480 hectares of fruit and vegetable crops in the areas where they are located cover 15.5 percent. These figures are 80,818 hectares or 23.1 percent, respectively, in the preparation-processing clusters.

In Uzbekistan, over the past four years, 52,000 hectares of new vineyards have been established and 210 billion soums of subsidies have been allocated to the sector. During this period, the share of grapes in fruit and vegetable exports has doubled. Today, grapes are grown on 90,000 hectares in our country. 900,000 people are employed in this network on a permanent and seasonal basis. Analyzes show that there are great opportunities in this area. In particular, the sale of grapes in the world market is the third largest among the fruits, the demand for which is growing by an average of \$ 350 million annually. Uzbekistan's export potential for grapes is projected to reach at least \$ 600 million over the next four years, \$ 500 million for raisins and \$ 100 million for natural wine. Both the economic efficiency and social significance of viticulture are great. For example, in Uzbekistan, the average cost of growing 1 hectare of grapes is 100 million soums, and in 4 years you can get a net profit of 250 million soums a year. Grape seed oil is also highly valued in the world market.

Conclusion

1. In the process of formation of a competitive and innovative economy in the regions of Uzbekistan, it is necessary to take into account the natural conditions and geographical features, traditional mechanisms of effective management, existing infrastructure and historically formed industries, which are the basis of socio-economic development.
2. Competitive advantages of agricultural enterprises, which are part of the fruit and vegetable cluster, will be formed, and most importantly, flexibility and ability to respond quickly to all changes in the market will increase. Clustering of agricultural sectors will increase the flow of capital and technology, direct investment, which will bring to the region, in addition to financial instruments, new innovative technologies, intellectual resources, management skills
3. 176955 hectares or 57.8% of 306253 hectares of fruit and vegetable areas in the regions where the fruit and vegetable cluster is located in the country are divided into mixed clusters, 80818 hectares or 26.4% into preparation and processing, 48480 hectares or 15.8% into independent clusters. corresponds to. Of the 30,500 hectares of fruit and vegetable area directly owned by clusters, 23,191 hectares or 76% are accounted for by mixed clusters, 7,309 hectares or 24% by independent clusters.
4. Currently, there are 10033 farms operating in the system of fruit and vegetable clusters. Of these, 23,191 or 76% are attached to mixed clusters, and the remaining 2,076 or 20.7% are attached to procurement processing clusters. 116024 hectares or 37.9% of the total fruit and vegetable area in the areas where the clusters operate are attached to the clusters. The level of cluster coverage of total fruit and vegetable areas in the regions where fruit and vegetable clusters are located in the country is 38.0%.

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