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Настоящий специальный выпуск международного научного журнала *Turk Eli* опубликован по материалам Международной научно-практической конференции на тему «Современные направления развития образования, науки и инноваций в Евразийском пространстве: человеческий капитал, цифровая трансформация и устойчивое развитие», состоявшейся 4–5 августа 2026 года в Кыргызской Республике (Иссык-Куль).

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Economic Mechanisms of Organization and Sustainable Development of Agroindustry Clusters in Economic Regions

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Abstract. *The article analyzes the economic foundations of the organization and development of agro-industrial clusters in economic regions and the issues of increasing the efficiency of the cotton agro-cluster. Practical proposals are developed to improve the cluster system, introduce innovations, and ensure sustainable regional development.*

Keywords: *agro-industrial cluster, economic region, cotton growing, innovation, integration, sustainable development, competitiveness.*

Экономические механизмы формирования и устойчивого развития агропромышленных кластеров в экономических районах

Аннотация. *В статье рассматриваются экономические основы формирования и развития агропромышленных кластеров в экономических районах, а также вопросы повышения эффективности функционирования хлопководческих агрокластеров. Разработаны практические рекомендации по совершенствованию кластерной системы, внедрению инноваций и обеспечению устойчивого регионального развития.*

Ключевые слова: *агропромышленный кластер, экономический район, хлопководство, инновации, интеграция, устойчивое развитие, конкурентоспособность.*

Introduction. It is necessary to study the characteristics of economic regions and provide the regions with jobs for labor resources capable of working, and to organize and develop industrial production of agricultural products in economic regions on an innovative basis, in order to ensure that the production of consumer products and agricultural raw materials necessary for industrial processing is not only quantitatively but also qualitatively competitive, innovative raw materials and consumer products are competitive and in demand in foreign consumer markets[1].

The cluster-based agricultural production process not only ensures that this production not only offers its consumer goods on the basis of entering the international world market, but also improves the production process based on the study of innovative innovations related to their production. The world population will reach 9.0 billion people in 50 years, and the need to meet their consumer demands and solve the problem of producing raw materials needed by industrial production sectors from agricultural production is increasing[2].

The development of the agricultural production process and its improvement in the conditions of a market economy can only be achieved by organizing production in a cluster manner that meets the requirements of a market economy.

We propose the use of the cluster method in agricultural production in our country in the following forms. These are;

- the method of organizing family agricultural production is based on family property and family labor;
- villages and settlements and is based on the labor resources living there;
- The organization of production based on an agricultural cluster is carried out based on its own labor resources.

The development of cluster-based production at the economic regional level is associated with increased labor productivity and the development of infrastructure. The development of production clusters in the context of interdependence of production and infrastructure ensures the entry of innovative products into the world market.

The cluster is associated with the organization of agricultural production at the level of economic regions, which is associated with the level of utilization of service resources. These are;

- the level of information use;
- increasing levels of professional knowledge;
- to base agricultural production on projects for the industrial re-production of its cultivated

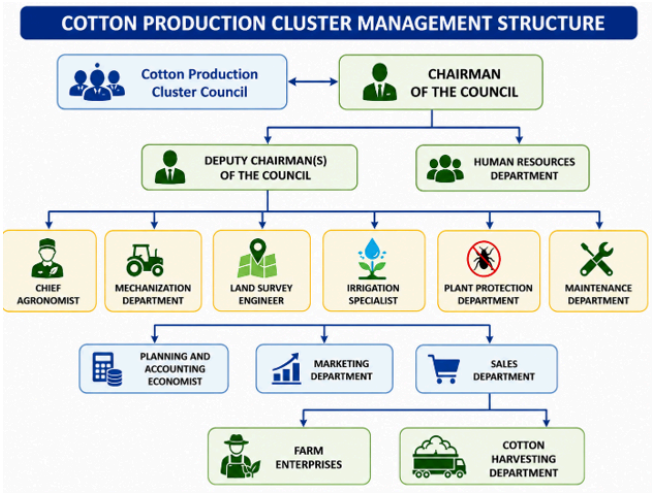
agricultural products;

- to find and design industrial enterprises that demonstrate the necessary cooperation to organize the industrial production of agricultural products;

- It is necessary to pay attention to working in partnership with companies that organize the export of agricultural products produced by the agricultural cluster to world consumer markets[3].

In the production process based on the laws of a market economy, the development of the cotton sector, which is the main branch of the agricultural production process, and the delivery of the grown cotton products to consumers through the consumer market require the existence of specific economic relations between production and consumers in terms of organizing cotton production in a specific form of farming and delivering it to consumers.

In the conditions of market economy relations, cotton-growing farms independently determine the areas for cotton cultivation based on the study of market consumption requirements for its planting and cultivation. In the current situation, entrepreneurs are freely developing the development of the cotton industry based on supply and demand for it. The main method of developing this industry is the organization of the production process based on the cotton agrocluster. The cotton agrocluster model in agriculture (Figure 1) is proposed.



1. Agricultural cotton agro-industrial cluster model [4].

When organizing regional production in agriculture based on a cotton cluster, its management should be carried out on the basis of collective, that is, cluster management. The essence of production based on cluster management is expressed in the following;

- to ensure the growth of cotton production efficiency and volume;

- To organize production based on a cotton cluster, to ensure sustainable growth of productivity, to organize mutual economic relations based on market relations;

- to promote the development of market infrastructure;

- to ensure the development of competitive relations in the management of production entities and consumer markets;

- ensures that the production process is innovative, improving production management in compliance with the laws and regulations of a market economy.

In order to organize and ensure the sustainability of cotton cluster production in agriculture at the level of an economic region in a market economy, it is necessary to determine the areas for cotton cultivation based on the demand for cotton raw materials in the domestic and foreign markets, based on the demand for it. Therefore, it is necessary to ensure the development of the cotton growing process in agriculture at the regional level based on the prospective demand for it.

It is important to organize the production of agricultural sectors at the level of economic regions and organize their management on the basis of administrative management[5].

Figure 2 below shows the strategic management of agricultural production at the regional level.



Figure 2. The relationship between regional strategic development and the production of the cotton agrocluster.

In order to ensure the effective development of the cotton sector in agriculture, production management based on agroclusters should be carried out on the basis of a developed program to stimulate the level of work of the workers employed in it. At the same time, regional cotton production agroclusters develop on the basis of internal competition. Competition between internal regional agroclusters ensures the effective development of their business cases. The strategy for the effective development of cotton agroclusters at the regional level is presented in Figure 2.

The strategic development of the cotton agro-cluster production should be based on the following.

-based on a business plan for the development of agro-cluster production;

-ensures the development of innovative horizontal and vertically integrated production;

-developing the integration of the production process based on agro-clusters in relation to science;

-future growth of agrocluster production;

- innovative organization of agrocluster growth stages;

- ensuring the professional development of workers related to the development of the agrocluster production method;

- have a plan for the perspective of the agrocluster production process based on mathematical logarithms;

-agrocluster alternates production departments;

-enhancement of ties between regions to develop agro-cluster production;

- It is necessary to increase the economic and social importance of state, that is, budget, financing in agro-cluster production;

- employment of laborers in agro-cluster production.

The targeted sale of cotton raw materials in the regional consumer goods market should be monitored by the regional administration to ensure the growth of the cotton growing sector and its effective sale. The organization of the production process and its implementation by the regional administration of the agro-cluster activities should be managed by the council. The development of agricultural production in economic regions, including cotton growing, based on the requirements of market infrastructure, ensures sustainable development at the level of economic regions.

CONCLUSIONS

- It is necessary to establish a cotton agrocluster complex as an organizational and institutional model, organize the agricultural production process at the regional level, and organize its structural structure taking into account natural and climatic conditions;

- It is necessary to organize agricultural production on the basis of an agro-industrial cluster, mainly by farmers and peasant farms, to centrally purchase and accept it at the regional district level, and to organize cotton processing enterprises at the district level;

- The reasons for the decrease in the area of land used during the period when the total land area is increasing, measures and measures have been developed to meet the population's needs for raw materials produced on the basis of agriculture and industry;

- Based on the study of definitions given by economists on the organization of the production process based on clusters, production in the form of agro-industrial and agro-clusters in agricultural production sectors is a form of social production and is an object of the subject that ensures effective and sustainable development based on the requirements of a market economy of production and social use of labor resources;

- It is necessary to use the experience of financing these production methods from the state budget, based on the study of the production process in foreign developed countries, agro-industrial, agro-cluster and individual cluster production, to ensure the effective and sustainable development of the economy;

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