Agrocluster as an Innovative Economic and Organizational Mechanism of Agroindustry in Uzbekistan

Nurlibek B. Abdurakhmonov
Tashkent State Technical University

Abstract: The modern development of market relations in the agro-industrial complex makes us look for innovative approaches to the organizational and economic mechanisms for managing technological processes in the agro-industrial complex. Cluster integration structures can become an effective form in unstable, crisis conditions. A cluster is a network of economically independent production or service firms, creators of technology and expertise connecting market infrastructure, consumers interacting with each other within a single chain of creating consumer values and having geographical proximity. The cluster approach is becoming one of the basic methods for implementing state economic policy. A cluster in economic systems is the most efficient and adequate organizational and economic mechanism and tool to support national agribusiness in global competition. Cluster strategies are widely spread in developed countries of Europe, Asia, and America. Agrocluster not being the organizational-legal form of an enterprise, implies the creation in a limited area based on the principles of partnerships cooperation and specialization of associations, equal-managing agrofirms, agricultural production cooperatives and other enterprises with preservation of economic and legal independence, where competition is the driving force of innovative development. When building architecture agrocluster draws attention to the principles of its creation. A comprehensive and statistical analysis of the farms of the agro-industrial complex and the economic activity of the Yangiyul district allowed the idea to introduce an innovative form of management of the agrocluster on the territory of the Tashkent region.

Keywords: agrocluster, infrastructure, innovation, cooperation, competition, organizational and economic devices, approach, territory, system, specialization.

1. Introduction

Statement of the problem in general form and its connection with important scientific and practical problems. According to scientists and researchers [1-3] in the field of application of innovative tools - in the agricultural sector, clusters are an effective form of using competitive advantages in unstable, crisis conditions. Scientists' theorists associate the role of clusters in the agroindustrial complex with the principles, the most important of which is territorial. It is written that associate clusters with the development of infrastructure [4]. The approach to the formation of a system of regional agroindustrial clusters is considered [5].

Theoretical and methodological provisions on the creation of cluster structures can be of practical importance in the agro-industrial complex of the Tashkent region through the local development of the socio-economic system in the form of integrated systems, the use of high-tech fundamentals in agriculture and the clustering of agricultural production cooperatives and small business forms.

Analysis of recent research and publications, which dealt with aspects of this problem and on which the authors are based; allocation of unresolved parts of a common problem. An important aspect of the cluster system is the integration of economic agents based on competitive advantages. In assessing the processes of reproduction and the formation of agrarian clusters in Uzbekistan, research is needed on the role of agrarian holdings, which are still not objects of statistical accounting and analysis [6]. There are examples of regional clusters, which are based on a sustainable system for the dissemination of new technologies, knowledge, products using network management and based on a joint scientific base. Clusters in the agro-industrial complex are a convenient tool for interacting with business, reducing dependence on vertically organized business groups through diversifying the economy of territories and solving social problems of the regions [7].

In the future, a cluster approach should be explored, based on a new theory of economic growth, where science, innovations, and human capital are factors of economic development. Formation of the objectives of the article (setting the task) development of theoretical and methodological approaches to the implementation of the innovative organizational and economic mechanism of the cluster in the agroindustrial complex of the Tashkent region. Presentation of the main research material with full justification of the scientific results obtained. The modern development of market relations in the agro-industrial complex makes us look for innovative approaches to the organizational and economic mechanisms for managing technological processes in the agro-industrial complex. According to many scientists and researchers [1, 4, 7] the most effective form of use of economic, organizational resources of territories, local competitive advantages in unstable, crisis conditions are clusters.

Clusters are geographically concentrated groups of interconnected companies, specialized suppliers of goods and services, firms in relevant industries, as well as organizations related to their activities in certain areas that compete, but at the same time work together [8]. Cluster is also understood as a network of economically independent production or service firms, creators of technology and know-how connecting market infrastructure and consumers, interacting with each other within a single chain of creating
consumer values and having geographical proximity. Clusters represent a higher level of development of integration processes. The formation of them is due to the transition to the program-targeted management of the economy [9]. A cluster is a group of geographically localized interconnected companies - suppliers of equipment, components, specialized services, infrastructure, research institutes, universities and other organizations that complement each other and strengthen the competitive advantages of individual companies and the structure as a whole [10]. Clusters are original integrated structures that arose and arise not so much artificially as spontaneously, as a result of self-organization [11].

The development of rural areas is hampered by the insufficient level of development of public administration. “Public administration” is a very broad concept, a huge number of factors affect the solution of agricultural problems. Important among which is the strategic development of agricultural areas, which involves: the creation of a viable institution of local self-government; the creation of prerequisites for the development of entrepreneurship in the community [12].

The clustering process in the agro-industrial sector refers to innovations as defined in the draft Strategy for the Innovative Development of the Republic of Uzbekistan for the period 2021 [9], the innovation cluster is a geographically concentrated group of innovative organizations — innovative companies, suppliers and related organizations (developers and manufacturing companies, suppliers equipment, components, specialized services, infrastructure, research institutes, universities, technoparks, business incubators and other organizations), mutually complementary and reinforcing the competitive advantages of individual companies and the cluster as a whole as a result of synergies.

Agrocluster is a system that exists in the presence of a synergistic effect of organizational and economic mechanisms for managing technological processes of agricultural production (cost-distribution, credit-cooperative, tax optimization, innovation, marketing and communication) of various organizations in order to obtain production, competitive products and profitability of each business unit [7, 10]. Based on source analysis and research, we interpret the concept of agro-cluster innovation as follows: “Agro-cluster innovation” is a new form of interconnected organizational and business companies that realize their competitive advantages through partnerships; which will lead to improved quality of life in rural areas, through the formation of different types of infrastructures.

The authors agree with the opinion of A. A. Mamadaliev [13], who argues that a systematic approach to the formation of agro-industrial clusters has direct practical application:

- firstly, the development of any socio-economic system, including agriculture in the region, country, begins locally and initially focuses on one or more interconnected points that need to be developed;
- secondly, the development of agriculture in the conditions of the WTO is possible only on a high-tech basis using the latest scientific achievements embodied in innovative technologies;
- thirdly, about 50–60% of gross agricultural output in Russia and its regions produce small forms of management, therefore, the system of agrarian clusters should include small forms of management as participants;
- fourthly, the cluster approach is based on a new theory of economic growth, which considers science, innovations, and human capital to be the main factors of economic development;
- fifth, the development of small forms of management is considered as a qualitative change aimed at improving the level and quality of life of their owners, ensuring their international competitiveness in the context of globalization;
- sixthly, in the 21st century, food has become a scarce resource and geopolitical tool, which creates unlimited demand for food;
- Seventh, the rise in food prices is the mega trend of the 21st century and the agricultural business is more profitable than the oil one;
- Eighth, in order to confidently create unique competitive advantages of agro-industrial clusters of the region, it is proposed to form them as systems in which cluster members complement each other and ensure the transfer of the functioning of the region's agriculture to a higher level of consistency and economic efficiency.

The French scientists I. Toleno and D. Solier used the concept of “dies” instead of clusters to describe groups of technological sectors. The formation of dies was explained by the dependence of one sector on another on the technological level.

The spinnerets are a narrower interpretation of the cluster, since they are based on one of the criteria for the emergence of a cluster — the need to create technological links between industries and sectors of the economy in order to realize their potential benefits.

Economic and product buyers, as well as poor development and often a complete lack of cooperation. In assessing the processes of reproduction and the formation of agrarian clusters in the Russian Federation, research is needed on the role of agrarian holdings, which are still not objects of statistical accounting and analysis [13]. Clusters contribute to the implementation of the technological process and the formation of agribusiness, aimed at the interaction, they contribute to the spread of innovation at all stages of production, lead to lower costs. In the Tashkent region, a potential transport-logistic and engineering cluster already exists, and the directions of the cluster system in the agro-industrial complex are emerging. The agro-industrial cluster performs the functions of the main tool of program-targeted planning and management within the framework of regional policy, and allows the complex use of the economic and social components of the region. The core elements of the agro-industrial cluster at the regional level are the centers (cores) subordinate to each other. The economic core of an agrocluster is usually represented by a large industrial enterprise, which in the course of its production activities has proven its prospects, importance for the region and the
growth of its competitiveness. Medium and small enterprises, suppliers and infrastructure units providing the technological chain are concentrated around the core [14].

The authors give the following characteristic of the agrocluster. Agrocluster, not being the organizational-legal form of an enterprise, implies the creation in a limited area on the principles of partnership, cooperation and specialization of associations, equal-managing agrofirms, agricultural production cooperatives and other enterprises (including farms) with preservation of economic and legal independence, where there is competition. It is the driving force of innovative development near the territories. Rationally combining synergistic factors of production of agrofirms communities, industries, various infrastructures, market elements and hierarchical coordination of actions, cooperative, informational and property relations (in the form of share participation) promote the growth of each other’s competitiveness.

The value and level of use of the investment potential of the socio-economic system in the region depends on the efficiency of using the accumulated production potential of an enterprise group, taking into account its transformation within the agrarian cluster, the phases of its development, life cycle stages in the context of the inclusion in the turnover of highly liquid excess capital [15].

2. Conclusion

Thus, the creation of agroclusters in the region will allow to enhance the synergistic effect of the presence of similar enterprises in it, not only in the technological process, but also in the service organizations of the main enterprises. Thanks to agroclusters, an innovative intersectoral system will appear, which will be aimed at producing a limited, differentiated number of products with guaranteed sales within and outside the agrocluster. To get closer to the real model of the agro cluster, the following are needed:

- The use of bioenergy plants, as well as other innovative technologies for turning the agrocluster into an ecologically closed system;
- Decentralization of the management of the agro-complex;
- Creation of a system of economic interests of mutually beneficial cooperation within the cluster;
- The transformation of potential private owners of the cluster into independent legal entities, real owners;
- Use of already existing cluster elements, for example, attracting universities to an agrocluster that could compensate for the absence of the Scientific Center and in many ways surpass it;
- The establishment of informal relations between the cluster members;
- Creation of a collegial cluster management body - the Cluster Council;
- Development of a unified cluster development strategy; Cluster activities in the Tashkent Region of the Yangiyul District can affect important sectors of the economy;
- Development of the leading branches of agriculture in order to obtain agricultural raw materials and healthy food products. Development and implementation of innovative technologies for the cultivation of crops, the use of new varieties and hybrids with predictable properties based on the use of modern bioeconomic methods.

References