Issues of improving financing of agricultural clusters

Ilhom Ochilov*

Tashkent State University of Economics, Tashkent, Uzbekistan

Abstract. Agricultural clusters play a pivotal role in the economic development of Uzbekistan, acting as key contributors to the nation's agricultural output. This research delves into the critical issue of enhancing the financial mechanisms that support these agricultural clusters. The period from 2018 to 2023 witnessed notable growth rates in agricultural production across various regions of Uzbekistan. In the Republic of Uzbekistan, the overall growth rate remained consistently positive, reaching 104.1% in the third quarter of 2023. The Republic of Karakalpakstan, Andijan, and Bukhara demonstrated robust growth, showcasing the effectiveness of agricultural clusters in these regions. Key words: Agricultural clusters, financing mechanisms, rural development, financial sustainability, public-private partnerships, agricultural credit

1 Introduction

In the context of a transit economy and the globalization of the economic system, the problem of studying integration processes as one of the factors of economic growth and identifying the degree of its impact on the growth of indicators of development of the national economy [1-4], in particular on the volume of GDP and labor productivity, becomes very relevant. At the same time, integration can protect the well-being of the national economy from the negative impact of globalization processes [5]. Therefore, integration, along with such generally accepted factors as investment in human development capital, has a predominantly positive impact on economic growth. The Agricultural Development Strategy of Uzbekistan for 2020–2030 contains important priorities for the development of the agricultural sector for the coming years, including, among other things, reducing the role of the state and strengthening the role of market mechanisms in management, increasing the investment attractiveness of the sector [6].The strategy notes that for the rational use of natural resources and environmental protection and increasing the export of agricultural products, the limiting factors are the insufficient level of security of land use rights, the lack of clear mechanisms for the distribution of land plots, limited subleasing opportunities and other reasons.It also talks about the need to cancel the mandatory state order for cotton and wheat [7].

* Corresponding author: usovoxaus@gmail.com

2 Materials and methods

Studying foreign experience in cluster policy, we came to the conclusion that we can define two historical periods, that is, the first and second generations of clustering:

- the first generation is a set of actions and measures taken by the state to define a cluster, the activities of enterprises that form the cluster, the creation of government agencies to support it and the implementation of a general strategy for motivating all types of clusters. In this period, an important role in research is played by scientists in the field of economics, both economic geographers and regional economists, who must, WB 2019 through spatial modeling, determine the types, directions of clusters and their structure [8]. The first period of clustering is usually characteristic of developed countries, such as Spain, Portugal, Greece, the Netherlands, Germany and Italy, in which the degree of development of traditional industries is high.

- the second generation is the generation that is based on the base and experience of existing clusters and requires an individual approach to solving the problems of development of each cluster individually, because government agencies act as a customer, manager, initiator of the production process and a source of financing for enterprises existing in the cluster structure. The second period of clustering refers to countries with a high standard of living, such as Switzerland, Sweden, Great Britain, Germany, Finland, Austria, the USA, where almost all sectors of industry, innovative technologies and the service sector in these countries are included in the structure of certain clusters .

An analysis of foreign clustering experience shows that integration processes in the agricultural industry are found in many countries around the world. For example, in the USA, 80% of the total poultry meat production is produced in 20 enterprises or 20% of livestock sales are accounted for by vertically integrated agricultural enterprises, and 25% of potatoes are grown in large agro-industrial farms. At the same time, as the experience of Japan, Holland, Bulgaria, Poland and Hungary shows, the technical equipment of production plays an important role in achieving high efficiency in small farms. At the same time, in countries such as Finland, Norway, Denmark, Sweden, the same Holland and Japan, the agricultural population is almost completely covered by integration processes, and in Germany and France more than 80% of agricultural enterprises are united in cooperatives.

In the United States, regional specialization has become the most important organizational and economic principle for rationalizing agricultural production. For this purpose, the country has identified 10 large agro-economic regions. Moreover, among them, the most dynamically developing are those in which high bioclimatic potential is organically combined with organizational, economic and innovative advantages.

An analysis of clustering in developed countries shows that in recent years the high competitiveness of the economies of these states is directly related to the positions of those clusters that enhance competitiveness and optimize the management of the national economy [9].

According to the analysis, this year in 41 cotton-textile clusters the harvest exceeded 40 quintals, and in 9 – less than 30 quintals. In Jizzakh, Kashkadarya, Namangan, Samarkand and Tashkent regions, due to low productivity and high costs, profitability did not exceed 10-11 percent [10].

There are also positive experiences. For example, in the Navbahor cluster in the Navoi region, a new foreign cotton variety produces on average more than 70 centners of yield per hectare, the cost of which is almost two times lower than in the Jizzakh region.

Now the clusters will use new approaches to the production of cotton seeds. Thus, in one of the districts of each region with a low quality score, insufficient access to water and a yield of less than 30 centers, the import of cotton seeds with a yield of more than 70-80

centners will be allowed [11]. Planting of varieties with a yield of less than 30 centners will also be stopped and replaced with new high-yielding ones developed by seed institutes.

Another pressing issue in the field is the violation of the discipline of mutual settlements between some clusters and farmers. 122 clusters have debts to the Agriculture Fund and farmers. 6 clusters were provided with preferential loans, although they do not have production facilities.

Based on this, a decision was made to introduce a new system for organizing clusters and organizing their interaction with farmers. From now on, newly created clusters will be required to have sufficient financial indicators, production capacity and equipment; they will be selected on the basis of an open competition. They will have to have at least a two-step reprocessing process.

Farmers will be able to enter into futures contracts with any cluster within the same region. They will also be able to sell a portion of the crop above the futures through the exchange. In addition, preferential loans in the form of a 60 percent advance for growing cotton for next year's harvest will be allocated directly to farmers.

Clusters will be financed through the purchase of grown cotton and the provision of funds for harvesting. Separate funds will be allocated for deep processing.

The President instructed the responsible persons to establish a new procedure for financing clusters and farms, and to settle receivables and payables between them. The need to transfer clusters to international financial standards was noted.

With this year's cotton harvest fully processed in 2024, industrial output is estimated to reach $9.6 billion and exports to $4.5 billion.

Therefore, it is emphasized that these resources should be distributed on conditions that are attractive for both banks and entrepreneurs. It was decided that the term of loans for agricultural projects will be extended to 15 years with a three-year grace period, and their consideration will be reduced to 2 months.

A systematic and holistic assessment of changes in the structure of the regional economy, aimed at identifying the specific features of territorial-sectoral clustering, factors and conditions for their transformation, can serve as an objective basis for determining the role of specific clusters in modernization, A. Akhmedjonov increasing the potential of the regional economy and its competitiveness [12].

In the public consciousness, the term “economic efficiency” represents: “the relationship between the obtained production results

- products and material services, on the one hand, and labor costs and means of production, on the other. In other words, economic efficiency as an economic category reflects the difference between the performance indicators of production and economic and financial and economic activities and the corresponding cost parameters necessary to achieve them. In relation to cluster processes in the agro-industrial complex, the economic efficiency of the formation and development of a regional cotton-textile cluster expresses the comparative effect in terms of the relative performance indicators of all parts of the single technological cycle of production and deep processing of cotton through the use of cluster technologies, reduced to the costs of creating and operating this cluster. An important point in determining the economic efficiency of the cotton-textile cluster in the country is the correct justification of the criteria for the effectiveness of the formation and development of a regional agro-industrial cluster, which reflects various aspects of its institutional-legal, production-economic and financial-economic activities [13].

To determine the economic efficiency of the formation and development of the cotton-textile cluster in the Sagd region, one should begin by identifying changes in quantitative indicators and qualitative characteristics that affect the main technical and economic parameters of this cluster. Quantitative indicators of clustering efficiency in the regional cotton sector are derived from qualitative characteristics that express the potential for

increasing the effectiveness of the creation and development of a cotton-textile cluster in a particular region.

In the scientific literature there are many approaches and methods for determining the economic efficiency of regional clusters and there is no single toolkit as a methodological apparatus for assessing the effectiveness of clustering processes, OECD. (2018) especially in vertically integrated ones [14]. Therefore, this paragraph summarizes the most popular approaches to assessing the effectiveness of clustering in relation to the conditions of regional agro-industrial complexes, such as the cotton-textile cluster. Based on the analysis of theoretical and practical material, two independent groups were identified - qualitative and quantitative (cost) for assessing the effectiveness of the clustering process and criteria for the effectiveness of the formation and development of a regional cotton-textile cluster were determined.

Despite the objective and subjective differences in the development of individual regional clusters, the general prerequisites for increasing the efficiency of the formation and functioning of agro-industrial clusters are: increasing the synergistic effect of interaction between clustering subjects, stimulating regional competitiveness, forming institutions and infrastructure that simplify the transfer and commercialization of innovations, K.Ruziev and establishing a favorable investment climate [15].

3 Results and discussion

The legislation provides for three forms of land use: (1) farming; (2) dekhkan farming; and (3) cooperative farming (shirkats) [16].

However, in recent years, a fourth form has been widely used - agricultural clusters, although the legislation does not define clusters as a form of land use [17].

The competitive advantages of clusters are built mainly on non-market factors: forcing farmers to grow certain crops, selling harvested crops at fixed prices, low prices for electricity, gas, water, as well as low wages for workers in textile factories.

When the state abandons compulsory state orders (in all its forms), wages begin to rise, subsidies for electricity, water and gas are reduced or terminated, then clusters will lose their competitive advantages and, with a high degree of probability, many of them will become uncompetitive.

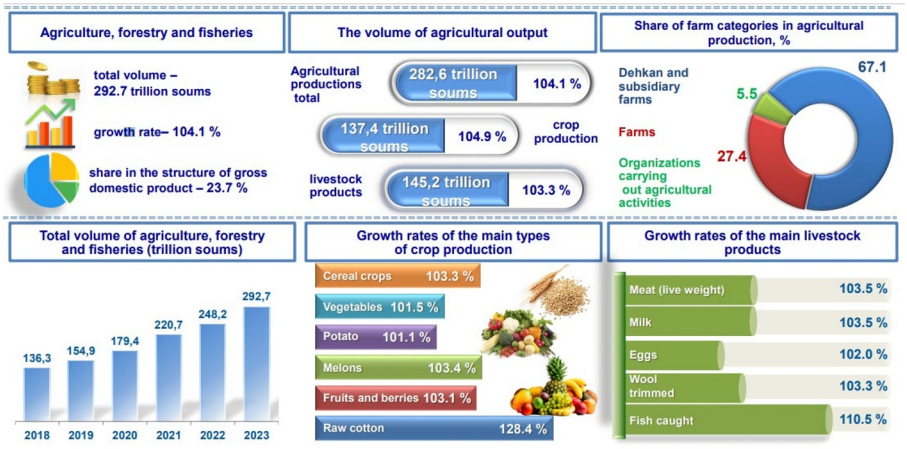

Fig. 1. Uzbekistan's agro-clustersresults (source from: www.stat.uz)

Thus, the "agroclusters" created in recent years are an effective form of state management, a competitive structure in accordance with the principles of the market economy, the principles of their operation help to implement agrarian reforms (diagram 1).

According to the data obtainedTable 2illustrates the growth rates of agricultural production in various regions of Uzbekistan from 2018 to the third quarter of 2023. The data is presented as an index, with the baseline year being 2018 (indexed at 100). The overall agricultural production for the entire country has shown a steady increase, reaching 104.1 by the third quarter of 2023.Karakalpakstan experienced fluctuations, but overall, there has been a positive growth trend, reaching 104.4 in 2023Q3.

Table 1. Growth rates of agricultural production by region

Regions	2018	2019	2020	2021	2022	2023Q3
Republic of Uzbekistan	**100.2**	**103.3**	**102.7**	**103.9**	**103.6**	**104.1**
Republic of Karakalpakstan	100.6	107.0	102.3	104.2	103.7	104.4
Andijan	106.3	103.0	101.1	104.5	102.3	103.8
Bukhara	102.9	103.6	101.9	104.7	103.9	103.7
Jizzakh	99.7	106.4	102.7	104.2	101.8	105.2
Kashkadarya	96.5	101.4	103.7	101.3	104.9	103.7
Navoi	102.1	101.6	103.3	104.4	103.8	103.7
Namangan	102.2	102.7	104.0	107.0	105.7	105.1
Samarkand	94.1	103.1	102.5	103.1	102.3	102.9
Surkhandarya	97.2	103.5	105.3	104.2	101.7	106.6
Syrdarya	96.5	108.4	101.8	103.8	103.9	106.9
Tashkent	98.8	101.1	100.1	104.1	104.2	102.1
Fergana	109.7	103.5	104.9	103.2	104.9	103.3
Khorezm	98.0	103.8	101.7	102.9	103.9	106.4

Andijan exhibited fluctuations, with a peak in 2018 and a subsequent decrease in 2020. However, there is a gradual recovery with a growth rate of 103.8 in 2023Q3.Bukhara demonstrated a consistent growth trend, reaching 103.7 in 2023Q3.Jizzakh experienced some fluctuations but has shown remarkable growth, reaching 105.2 in 2023Q3.Kashkadarya witnessed a dip in 2018 but has been on an upward trajectory, reaching 103.7 in 2023Q3.Navoi has shown moderate growth, maintaining a relatively stable increase, reaching 103.7 in 2023Q3.Namangan experienced substantial growth, reaching 105.1 in 2023Q3, with a significant peak in 2021.Samarkand exhibited fluctuations but has remained relatively stable, reaching 102.9 in 2023Q3.Surkhandarya displayed growth, with a notable increase to 106.6 in 2023Q3.Syrdarya showed fluctuations, but overall growth has been positive, reaching 106.9 in 2023Q3.Tashkent demonstrated a slight increase, reaching 102.1 in 2023Q3.Fergana experienced substantial growth, peaking in 2018, and maintaining a positive trajectory, reaching 103.3 in 2023Q3.Khorezm witnessed fluctuations but showed growth, reaching 106.4 in 2023Q3.

4 Conclusion

In connection with the above, it is necessary to take the following set of measures:

1. Categorical rejection of mandatory state orders, including the practice of “allocation of agricultural crops”, standardization of yield indicators and forced contracting of farmers with clusters, as contrary to the principles of a market economy, being a source of corruption and irrational use of land and water.

2. Formation of free markets for cotton and wheat.

3. Formation of free and competitive markets for resources and services for agricultural producers, as well as improving the agricultural financing system, including taking measures to develop non-bank financing.

4. Strengthening the rights of ownership of agricultural lands, including:

Limitation of the rights of local authorities in the distribution and redistribution of land.

Expanding the "real rights" of dekhkan and farm enterprises, including the rights to resell property rights or leases; using land or the right to own it as collateral to obtain a loan; hiring labor on a permanent basis (for dekhkan farms); and introducing clear rules for lease renewals, including automatic renewals if lease rules have not been violated.

Extension of the right to lease and sublease without restrictions on terms (terms are determined in the agreement).

Introduction of the institution of private ownership of agricultural land. The first step in this direction could be the introduction of ownership rights to agricultural land for dekhkan farms.

Carrying out the privatization of agricultural land with transfer to private ownership or long-term protected lease.

Formation and implementation of transparent and effective rules for the transfer of land to new owners, as well as rules for the secondary redistribution of land plots. Privatization or transfer of long-term lease of land, as well as resale of rights should be carried out on the principles of payment, transparency and social justice. The land should go to those who are willing to pay the most for it. At the same time, it is necessary to take into account the level of agricultural overpopulation and the social tension it creates. Therefore, it is proposed to introduce restrictions on the size of plots transferred to new owners and to provide for stage-by-stage payment of the cost of the plot by the new owner. It is advisable to privatize dekhkan farms to their owners on preferential terms. The remaining agricultural land should be privatized or transferred for long-term lease through electronic auctions organized primarily among local residents.

Acceleration of classification of lands and land plots in the state land cadastre system. Carry out a subclassification of lands into the category of dekhkan farms.

5. Reforming the system of state regulation of the agricultural and water sectors, creating a new system for supporting agricultural producers, including: introducing market principles for paid water use, taking into account the cost of delivering water to consumers, as well as mechanisms for resale of rights to use water;

reforming the irrigation and land reclamation management system with the widespread use of public-private partnership mechanisms;

a radical restructuring of the support system for agricultural producers: lending, insurance, financing of irrigation infrastructure, scientific research and information and consulting support for the sector, etc.

6. Adopt a range of measures to regulate pesticides, including:

Completely update the rules for registration of pesticides and fertilizers permitted for use in Uzbekistan. Eliminate pesticides banned in the EU, US and other potential export markets as harmful to public health.

Harmonize current standards (SanPINs, GOSTs, etc.) in the field of use of pesticides, their parameters, etc. with the parameters of the Codex Alimentarius.

Enact new legislation on pesticide use regulations and IPM (Integrated Pest Management) GAP (Good Agricultural Practices) practices.

Conduct extensive training for farmers and regulators in the application of an integrated pest management system, and provide assistance for the development of advisory services (advisory services, extention services) for farmers from farmer associations.

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