
LOGISTICS IS A FACTOR FOR THE DEVELOPMENT OF AGRICULTURAL INDUSTRY

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Abstract: The article provides scientific proposals and practical recommendations on the role of logistics in the implementation of innovative and economic changes in the agro-industrial sector of the country as well as the implementation of the Strategy of Agricultural Development of the Republic of Uzbekistan for 2020-2030.

Keywords: agrologistics, farming entities, economics, information, technology, finance, infrastructure.

Introduction. In the process of implementing reforms in agriculture sector, there is no way to ignore the fact that there are great difficulties and interruptions in the supply of material and technical resources for the agro-industrial complex. This is due to the fact that there are serious disparities between the prices for the supply of basic material and technical resources of domestic and foreign firms and agricultural products. As a result, the purchasing power of material and technical resources of the majority of agricultural producers has significantly decreased. Therefore, the establishment of logistics services is important in solving the problems of providing the agro-industrial complex with material and technical resources, organization of production, delivery of finished products to consumers, export and processing.

According to the decree of the president of the Republic of Uzbekistan in 2019, the Strategy of Agricultural Development of the Republic of Uzbekistan for 2020-2030 was adopted [1]. A number of paragraphs of the document emphasize the development of logistics and the establishment of logistics centers in the country. Also, some work is being done on the widespread introduction of agrologistics for the sustainable development of agriculture in the country. President Sh. Mirziyoyev’s resolutions “On additional measures for deep processing of agricultural products and further development of the food industry” dated July 29, 2019 [2] and “On measures to implement the project “Modernization of Agriculture of the Republic of Uzbekistan” with the participation of the International Bank for Reconstruction and Development and the International Development Association” dated August 11, 2020 [3] were adopted.

The use of logistics services by agro-industrial enterprises, storage of their products in warehouses and refrigerators, the use of transport services to deliver their products to customers, access to foreign markets contribute to the development of the industry. They not only sell the product as a raw material, but also have added value as a result of processing. It is known from practice that when a raw material is processed and turned into a finished product, its price increases several times.

In the Logistics Performance Index Report published by the World Bank in 2018, Uzbekistan ranked 99th out of 160 countries [4]. From this information, it is clear that much remains to be done to develop the industry.

Literature review. Research on the development and improvement of logistics is carried out by a number of scientists around the world.

The word “logistics” exists in almost all European languages, but they have different meanings. Professor Günther Pawellek, a German researcher, described the use of logistics in the Byzantine Empire as “the payment of wages in the army, the satisfaction of needs, its proper arming and distribution, that is, directing the movement and distribution of its armed forces.” [5]

German philosopher, logician, mathematician Gottfried Wilhelm Leibniz called logistics as a “mathematical logic” [6].

In the 19th century, the great French military theorist Antoine-Henri Jominidescribed logistics as “the applied art of command in the planning, control and delivery of military units, the deployment of troops, location, transport services for the army, and so on”. Gradually, the concepts of “logistics” and “logistics management” have penetrated into different areas of production and trade, filled with a variety of contexts. This was due to the development of the latest methods of calculation, the widespread use of modern computing, information technology, and technology, as well as the interaction of elements of production infrastructure and intensive management methods. Later, logistics included procurement (supply), production, sales (distribution), transportation and information logistics.

The U.S. Logistics Management Board recommends that logistics be defined as follows:

“Logistics is an integrated management tool that addresses strategic, tactical and operational business objectives, ie meeting the final needs of consumers for products and services, managing the flow of materials and services, and providing this flow with information and funding.” [4].

Russian professor B. Anikin puts forward the following definition of logistics: “Logistics is the science of planning, organizing, managing and controlling the movement of material and information flows from the primary initial producer to the consumer” [1].

Research methodology. The logistics sector of developed countries has been studied in the process of developing strategies for the development of agro-industrial complex, key indicators of logistics activities and efforts in the development of logistics in our country, conclusions and recommendations on the widespread use of advanced technologies and experience in logistics. At the same time, the methods and results of scientific and applied research aimed at describing the peculiarities of agrolistics in the development of the agricultural sector were used.

Analysis and results. Agrologistics is an effective direction of complex development of the agro-industrial sector. It combines the sectors of agricultural production, processing of products, and matlubaat (trade). They are closely interconnected through production, technological, economic, information, financial, labor, and so on. It deals with the optimization and regulation of the movement of goods in the area of circulation of goods and services, including information, transport, and financial aspects at the micro and macro levels, ie individual enterprises and trade intermediation structures and various sectors of the economy.

According to government decisions [1], [2], in the years of 2019-2024, it is planned to establish 8 large agro-logistics centers with a capacity of 3 million tons (\$ 367 million) and 39 modern agro-logistics centers with a capacity of 424,000 tons.

Table 1
Agrologistics centers planned to be launched in 2021

№	Name of regions	On 01.01.2021		Total plan for 2021		On 01.01.2022	
		unit	thous. tons	unit	thous. tons	unit	thous. tons
By Republic:		51	737,6	20	282,1	71	1019,7
1	The Republic of Karakalpakstan	3	19	1	5	4	24
2	Andijan province	3	77	3	27,1	6	104,1
3	Bukhara province	4	55	3	55	7	110
4	Jizzakh province	3	26			3	26
5	Kashkadarya province	2	8			2	8
6	Navoi province	1	5,5			1	5,5
7	Namangan province	3	26,8	2	35	5	61,8
8	Samarkand province	7	161,1	3	46	10	207
9	Surkhndaryo province	8	111,3	2	55	10	166,3
10	Syrdarya province	3	81,3			3	81,3
11	Tashkent province	1	10	2	33	3	43
12	Fergana province	9	102,4	3	16	12	118,4
13	Khorazm province	3	24,2			3	24,2
14	Tashkent city	1	30	1	10	2	40

Note: Reference of the Ministry of Agriculture of the Republic of Uzbekistan.

In 2020, there are 51 agro-logistics centers with a total capacity of 737.6 thousand tons (Before the Decree there were 31 centers with a total capacity of 597.2 thousand tons), of which 17 agro-logistics centers with a total capacity of 116.4 thousand tons were launched in 2020. (Fergana **9centers** with a capacity of **102.4 thousandtons**, Andijan **3 centers** with a capacity of

77 thousand tons, Surkhandarya **8 centers** with a total capacity of **111.3 thousand tons**, Samarkand **7 centers** with a total capacity of **161.1 thousand tons** and others) [10].

In order to make full use of the resources of the warehouse infrastructure, it is necessary to gradually increase the volume of trade turnover, including through the diversification of activities and services (circulation of new consumer goods, development of own production of scarce products, development of new services, etc.). This will reduce depreciation allowances to the main range of material and technical means intended for the agro-industrial complex.

It is necessary to establish a system of measures to ensure the rapid development and efficient operation of the service sector, the production, storage and transportation of agricultural products. It provides for the integrated development of interconnected links of infrastructure, such as transport, utilities, storage and procurement. Infrastructure should be formed taking into account the development potential of other sectors of the agricultural and agro-industrial complex. This is done through the search for ways to reduce costs, logistics, product storage and sales, improving marketing activities, strengthening the interaction between suppliers, consumers, suppliers, improving the technology of movement of material flows. The most important goal is to minimize costs and maximize profits.

The primary functions of logistics centers are:

- receipt of agricultural products;
- assembly of commodity batches of products;
- organization and processing of primary processing of products;
- organization of wholesale of products;
- organization of product fairs, marketing events and harvest festivals.

Although there are a large number of farms in the regions, they have low yields due to their small size. In order to sell the produce they grow to large buyers, logistics centers are needed that combine the products of several farms. These centers should have the necessary storage and initial processing facilities to receive the products.

Agrologistics plays an extremely important role in the sustainable development of agro-industry. It is necessary to establish agro-logistics services in the regions and establish chain links with farms on production, processing, transportation, trade and other issues. In other words, it is necessary to create a structure that includes elements of agrologistics, road transport services, production and maintenance services, processing and storage, purchase and sale of products, exports.

The mission of logistics should be a worldview of firms to anticipate the production of high quality products and services, a system to ensure the combination of supply, competitiveness, production and marketing activities[11].

According to the data, almost 98.0% of the time spent on production in Western Europe is spent on logistics (supply of raw materials, transportation of finished products, their warehousing and storage). Only 2% of the total time is spent on production and 50% on transportation. In addition, in Western European countries, the cost of logistics for all activities accounts for 13 percent of the value of GDP. The distribution of this value is as follows: 41% is spent on transportation, 21% on storage, 23% on material resources, 15% on administrative expenses [12].

If the agro-logistics service is not established, if the fields are not plowed in time, or if the crops are not planted, if the agro-technical measures are not carried out, if the harvest is not harvested, stored or processed in time, they cannot be sold and get the expected profit.

Currently, there are the following problems in the logistics organization system:

- there is no system of technical and transport services;
- road and road maintenance activities in the regions do not meet the requirements;
- transportation information system is not established;
- there is a lack of warehouses and freezers;
- the processing industry is underdeveloped;
- marketing service is not sufficiently organized, etc.

It is necessary to create transport-forwarding detachments and local agricultural terminals. As a result, it will be possible to transport, sell and process the products of farms, as well as farming entities. With the establishment of information consulting services, it will be possible to provide farmers, dehkan farms with relevant information.

At the same time, with the development of information and communication technologies, it is necessary to rapidly develop agro-logistics and quickly overcome the backward period. To do this, it is necessary to introduce digital agrologistics in the industry. There are all conditions and opportunities for this.

The council of farmers, dehkan farms and landowners should perform the functions of operator and coordinator in the organization of agro-clusters, cooperative societies, agro-technoparks, agro-logistics services. Such organizations play an important role in overcoming the objective and subjective factors that hinder production, increase labor productivity, reduce costs and waste, increase efficiency.

As our country is reluctant to become a member of the World Trade Organization, the integrated development of agro-industry and the development of agrologistics are important for this.

“Currently, the situation is similar in the agro-industrial sector. Many structures around a single farm organize their activities separately. These include farms, machine and tractor parks, water user associations, supply organizations, and more. There is a lack of interdependence in their collaboration. Because they are made up of different structures, the approach to work is different. This does not meet the specific requirements for the cultivation of biologically viable crops. For this reason, agricultural development remains problematic” [5].

There is an urgent need to establish public associations for the integrated development of agro-industry to facilitate the integration of structures. At the same time, a high level of coordination of activities is formed, which serves as an important factor in development.

Conclusions and Recommendations. The organization of agrologistics services plays an important role in the integrated development of the agro-industrial sector. Thus, it plays an important role in eliminating the objective and subjective factors that hinder production, increase labor productivity, reduce costs and waste, increase profitability and efficiency. Therefore, the study identified the following conceptual areas for further development of agrologistics services in the field:

- development of measures for the establishment of agrologistics services in each region and farms;

- it is necessary to develop an information system as an important aspect of logistics organization;
- organization of marketing services at the level of demand;
- creation of transport-forwarding detachments and local agricultural terminals;
- enrichment with logistics elements of management;
- organization of regional public administrations for the efficient organization of logistics and the organization of integration and cooperation between enterprises;
- it is necessary to create optimal conditions for the organization of agro-logistical services in the regions by local authorities.

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