International Journal of
Business Diplomacy and Economy

ISSN: 2833-7468
Volume 2 | No 4 | April -2023

Logistics in Agricultural Industry and Aspects of Its Organization

Madaliev A.A.
doctor of economic sciences, Tashkent State Agrarian University

Abstract: In the article, it is discussed how agrologistics services should be widely adopted in agriculture and how the industry could expand sustainably. The organization of agrologistics has a variety of issues and flaws, and solutions and suggestions for fixing them have been offered.

Key words: agro-logistics, resources, supply, infrastructure, transport, production, storage and processing, information, finance.

INTRODUCTION

Agrologistics is a productive field that improves the agro-industry sector in all its aspects. It incorporates the trade (trade) sector, product processing, and agricultural producing sectors. Through labor, production, technology, economics, information, and other factors, they are tightly tied to one another. It focuses on issues related to the improvement and control of the processes for moving goods in the area where goods and services are exchanged, including information, transportation, and financial aspects at the micro and macro levels, that is, in certain businesses, trade-intermediary structures, and different economic sectors.

The process of developing an innovative strategy for the technical and technological advancement of industrial companies has to be improved in the contemporary era. These definitions of logistics are widely used today: According to the American Council on Management Issues, "Logistics is the planning, implementation, control, as well as the technologically and financially advantageous processes of moving goods, materials, semi-finished and finished products and placing them in warehouses. Logistics is defined as supply-production-sale, supplier selection, organization of the supply of manufacturing materials, stock placement, and delivery of completed goods to the customer by the British Institute for the Problems of Purchasing Organization, coordination and control of the supply chain."[1]

It is necessary to consistently increase the volume of goods turnover, including the diversification of activities and services (putting new consumer goods into circulation, developing own production of scarce products, mastering new types of services, etc.), in order to fully utilize the potential of resource provision warehouse infrastructure. This enables the primary categories of material and technological means designed for the agro-industrial complex to use less depreciation allowance.

To ensure the quick growth and effective functioning of service industries, agricultural product preparation, storage, and transportation sectors, a system of controls must be put in place. Its goal is

[1] Gadjinskiy A.M. Logistika. Uchebnik. – Moskva: Izdatelsko-torgovaya korporatsiya «Dashkov i K°», 2007. – 472 s.

to guarantee the thorough growth of the infrastructure's interrelated components, including transportation, the container industry, storage, and preparation. The agro-industrial complex's other linkages and the potential for agricultural expansion should be taken into consideration while building the infrastructure.

With the International Development Association's assistance, Decision No. PQ-4803 "On Measures to Implement the Project "Modernization of Agriculture of the Republic of Uzbekistan"" was approved. These choices led to the establishment of 8 big and 39 contemporary agro-logistics facilities with a combined capacity of 424,000 tons and 3 million tons (367 million dollars) in the 2019–2024 period[2].

Finding cost-cutting opportunities, material supply, product storage and sale, enhancing marketing initiatives, fostering stronger relationships between suppliers, customers, and suppliers, and advancing the technology of material flows are all examples of logistics-related tasks. Profit maximization and cost reduction are the most crucial objectives.

The following is the primary role of logistics centers:

- receiving agricultural products;
- batching of products;
- organization and processing of the initial processing of the product;
- organization of wholesale trade of products;
- organization of product exhibition fairs, marketing events and harvest festivals.

Despite the abundance of farms in the area, their tiny size results in little goods. They require logistic hubs that gather the goods from several farms in order to sell the crops they have raised to substantial purchasers. To receive the items, these centers must have the requisite storage and initial processing equipment.

The sustained growth of the agro-industry depends greatly on agrobiologics. In order to create a chain interaction with the associations' structures for the purposes of product production, processing, freight transportation, commerce, and other matters, it is required to form an agrologistics service under the umbrella of the organization of regional farms. In other words, a structure addressing the following aspects of agrologistics should be developed by the association of regional farms: motor transport service, production technical service, processing and storage, buying and sale of goods.

According to research, logistics—including the supply of raw materials, the transportation of completed items, and their installation and storage in warehouses—takes up about 98% of the time used in the manufacture of commodities in Western Europe. Production takes up only 2% of the overall time, whereas transportation takes up 50%. In addition, 13% of the value of the country's gross domestic product goes toward the cost of materials and technical assistance for all activities in Western European nations. The distribution of this value is as follows: 41% is spent on transportation, 21% on product storage, 23% on material reserves, and 15% on administrative costs[3].

The definition of logistics is still up for debate. According to the US Logistics Management Council, logistics should be defined as “Logistics is an integral management tool, which includes strategic, tactical and operational business objectives, i.e., satisfying the customers' ultimate needs

[2] “Xalqaro tiklanish va taraqqiyot banki hamda xalqaro taraqqiyot uyushmasi ishtirokida “O‘zbekiston Respublikasi qishloq xo‘jaligini modernizatsiya qilish” loyihasini amalga oshirish chora-tadbirlari to‘g‘risida”gi 2020 yil 11 avgustda PQ-4803-sonli qarori.

[3]Кальченко А.Г. Основы логистики. – Киев: Знания, 1999.

for products and services, managing the flow of materials and services, and managing the flow of information and financial resources that It is said to offer"[4]

It is suitable to separate agro-logistics into 4 sections for the agro-industry sector.

I. Production:

- tillage;
- planting;
- agrotechnical processing;
- things like harvesting.

II. Supply:

- seeds, new varieties, purebred animals;
– mineral fertilizers;
– fuel and lubricants;
- techniques and mechanisms;
– spare parts and others.

III. Transportation, storage and processing:

- transportation of products and other goods;
- packing, storage and storage of products;
- organization of cold stores;
- product processing, packaging, etc.

IV. Product sales and marketing activities:

- buying finished products or finding buyers;
- market research;
- advertising;
- preparation of reasonable offers to farmers on crop production, provision of information, etc.

Agrologistics organization based on such a framework enables competent resolution of several issues. A expert who supplies seeds to local farmers, for instance, is more knowledgeable about seeds than a farmer is. Or additional information will be available in the logistics service for the sale of the produced item, etc. This results in a methodical and effective organization of labor in all respects. Typically, the logistics functional job does not comprise the first element listed above. Agrotechnological measures will be completely executed if this department is included in the structure of agrologistics.

We take into account the goals of the supply department's actions at each designated stage: The supply department, which is a part of the macrologistic system, handles issues with product suppliers, technical issues with delivery of items, and economic, methodological, and methodological (methodological) issues. The supply department works closely with the supplier's sales team and transportation providers to make sure the business is integrated into the macro-logistics system. The purpose of logistics is to generate more revenue via the collaboration of all participants, not as a standalone entity, but as a link in a larger logistics system, to guarantee that the employees of the supply department fulfill their company's goals. In other words, the supply department should think about improving the effectiveness of the overall macrologistic system in addition to working for its own company. According to this method, an individual's business is viewed as a component of the entire macrologistic system. If the system's state improves, the business, which serves as its link, will also do so. For instance, the work on the entire farm will be of

[4]Елисеев Е. Логистика покрывщая мир. Новая концепция руководства предприятиями // Маркетолог. 2000. №9. –С12-13.

the highest caliber if each contractor, while looking out for his own interests, also considers avoiding injuring other contractors and helping them if feasible[5].

Agrologistics is outfitted with qualified personnel to participate in farm activities and participate as close assistants in the processes of planning planting, optimizing dates, choosing seed varieties, agrotechnical processing, harvesting, transportation, storage, and product sale. The participants should approach the job as a single integrated system rather than as a collection of independent entities if they want their goods to be competitive.

It won't be feasible to sell the crops and make the anticipated amount of profit if the agrologistics service is not set up, the fields are not plowed in a timely manner, the crops are not planted, the agrotechnical measures are not carried out, the crops are not harvested, stored, or processed.

Currently, the system of logistics organization in the republic has the following problems:

- there is no equipment and transport service provision system;
- roads and road management activities in the regions do not meet the requirements;
- information system in transportation is not established;
- there is a lack of warehouses and ice-houses;
- the processing industry is not developed;
- marketing service is insufficiently organized, etc[6].

The growth of logistics center operations and the enhancement of their effectiveness should be carried out in the following directions, according to the experience of the nations of the world:

Reduction of reserves in business processes at the expense of:

- redistribution of stocks between wholesale and retail and accumulation in wholesale joints;

- use of modern technology of control of reserve conditions;

- the high level of coordination of the participants in the issue of timely replenishment of reserves. Both current reserves and insurance reserves will decrease. Current stocks are carried out due to timely delivery of sets of convenient sizes. Insurance reserves are reduced due to the accumulation of goods in a single distribution warehouse. For example, if 100 stores are combined around one distribution warehouse and insurance stocks are collected there, then according to the square root law, the total volume of stocks will decrease by 10 times without harming the stability of service[7].

Local agricultural terminals and transport-expedition detachments must be established. As a result, both farm and homestead goods will be able to be processed, sold, and transported. The development of information consulting services will make it feasible to deliver pertinent information to families, peasants, and farmers.

The activity of agro-logistics must simultaneously evolve swiftly in order to overcome the lag time, since information and communication technologies are continually evolving. Digital agrologistics must be included into the industry for this to be possible. The prerequisites and opportunities are all present for this (the second chapter of this monograph develops the

[5] Logistics and supply chain management : creating value-adding networks / Martin Christopher. – 4th ed. – Great Britain: Pearson Education Limited, 2011. – 276 p.
[6] Мадалиев А.А. Агросаноат секторида илмий-техник тараққиёт ва инновацион ривожлантириш концепцияси. – Т.: Наврўз, 2020. 167-168 бетлар.
[7] “Iqtisodiyot va innovatsion texnologiyalar” ilmiy elektron jurnali. № 4, iyul-avgust, 2017 yil 6 № 4, 2017 www.iqtisodiyot.uz

fundamentals of the digital economy). This idea may be used to create a computerized agrologistics system.

It is desirable to actively introduce the concept of cost-effective production based on the reduction of various losses due to the introduction of modern trends in agro-industry activities and the optimization of management processes[8]. In this instance, agrologistics can be viewed as an integrated component in a common chain that determines the level of intensity of production and business activity, which is clearly focused on the needs of the consumer of agricultural products, making it possible to achieve savings by synchronizing supply and demand. A given order will need the efficient attraction of industrial and transportation resources. The most potential agrologistics "growth points" are the ones listed below[9]:

- agrologistika zanjirida taktik va strategik rejalashtirish;
- assessment of efficiency and synchronicity of cooperation between partners of the agro-logistics chain;
- assessment and management of risks in the supply chain;
- formation of an innovative background based on the use of various economic and mathematical methods and models;
- active use of information technologies.

Agro-logistic chain organization is crucial to obtaining the goals indicated above.

The overall growth of the agro-industry and the growth of agro-logistics are crucial for this as long as our nation is debating joining the World Trade Organization.

The agro-industry's sustainable development will remain challenging as long as it is not fully established. The agro-industrial sector currently faces the same issue. Around one agricultural, several entities are structuring their individual operations. These include farms, parking lots for cars and tractors, water users associations, supply companies, and others. Their relationship is not reciprocal. They have diverse work attitudes since they are made up of distinct structural types. Specific conditions for the production of crops with biological qualities are not met by this. Because of this, agriculture's development continues to be a challenge.

To construct integrated operations of structures, there is a critical need to create public associations for the integrated growth of the agro-industry. In this instance, a high degree of activity harmony is produced and acts as a crucial growth component.

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