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ADVANTAGES OF LOGISTICS SERVICES IN AGRICULTURE

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Abstract

The experience of developing countries shows that the role of logistics services in ensuring the sustainability of economic growth and economic development is invaluable. The processes of growing, storing and delivering agricultural products to markets have many organizational, technological and transport stages, and the use of optimized logistics approaches in them serves to increase product efficiency. The study analyzes the level of development of the agrologistics system in the Kashkadarya region, its role in the GRP structure, and the chain of logistics services.

Keywords: agrologistics, agriculture, transport costs, storage system, GRP, efficient use of resources.

Introduction

Advantages of logistics services in agriculture

Logistics in agriculture is a system of rational organization of storage, transportation, processing, distribution and trade processes, from production to delivery to the consumer. Proper use of logistics services in the agricultural sector ensures the preservation of product quality and uninterrupted supply in accordance with market demand.

Main advantages:

1. Preservation of product quality

After harvesting through logistics, the product is stored in special warehouses and refrigerators. This:

• prevents rapid spoilage of fruits and vegetables;

• ensures that quality products reach the consumer.

2. Reduction of product losses

If the logistics chain is properly organized, up to 20–40% of the crop can be prevented.

3. Reduces seasonal price fluctuations

If it is possible to store products throughout the year and release them in accordance with market demand:

• the price on the market does not change sharply;

• the farmer receives a stable income.

4. Optimizes transportation costs

Transporting products along the right route:

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• reduces travel costs,

• saves time,

• ensures fast and safe delivery.

5. Continuous supply to markets

Thanks to logistics services:

• products are regularly delivered to urban and export markets,

• it is possible to constantly meet demand.

6. Increases export potential

A logistics system that meets international standards:

• delivers products to foreign countries without losing quality,

• increases export volumes.

7. Creates new jobs

Logistics centers, warehouses, refrigerators, transport services:

• increases employment in rural areas,

• revitalizes economic activity.

8. Increases competitiveness

As a result of the development of logistics:

• products become cheaper, of higher quality and reach the market faster,

• farms become more competitive.

In the economic system of developing countries, the efficiency of logistics services is recognized as one of the factors of economic growth. Logistics not only ensures the fast and high-quality delivery of products from the place of production to the consumer market, but also serves to rationally use resources in the production process, reduce product costs, minimize losses during storage and ensure market continuity.

Agriculture depends on many natural factors, and product production is subject to seasonal processes. Seasonality increases the risk of disruptions and losses in the processes of harvesting, processing and sales of products. Therefore, the use of agrologistics services on a scientific and methodological basis in the chain of production, storage and sale of agricultural products ensures high efficiency.

Kashkadarya region has high agricultural potential, and in 2023 the regional gross regional product amounted to 58,404.5 billion soums, an increase of 5% compared to 2022. The

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share of agriculture in GRP was 41.9%, and an upward trend was observed. These processes are directly related to the development of logistics.

Methodology

The following scientific approaches were used in the study:

Method Content	Method Content
Statistical analysis The indicators of GRP, production volume and sector share of the Kashkadarya region were studied.	Statistical analysis The indicators of GRP, production volume and sector share of the Kashkadarya region were studied.
Comparative analysis The results of agriculture for 2022–2023 were compared.	Comparative analysis The results of agriculture for 2022–2023 were compared.
Analysis of the chain of logistics processes The logistics stages in product sales were identified and their impact on efficiency was assessed.	Analysis of the chain of logistics processes The logistics stages in product sales were identified and their impact on efficiency was assessed.

The study considered the agrologistics process as a system, and the following stages of the processes were analyzed in sequence:

1. Collection and initial sorting of products

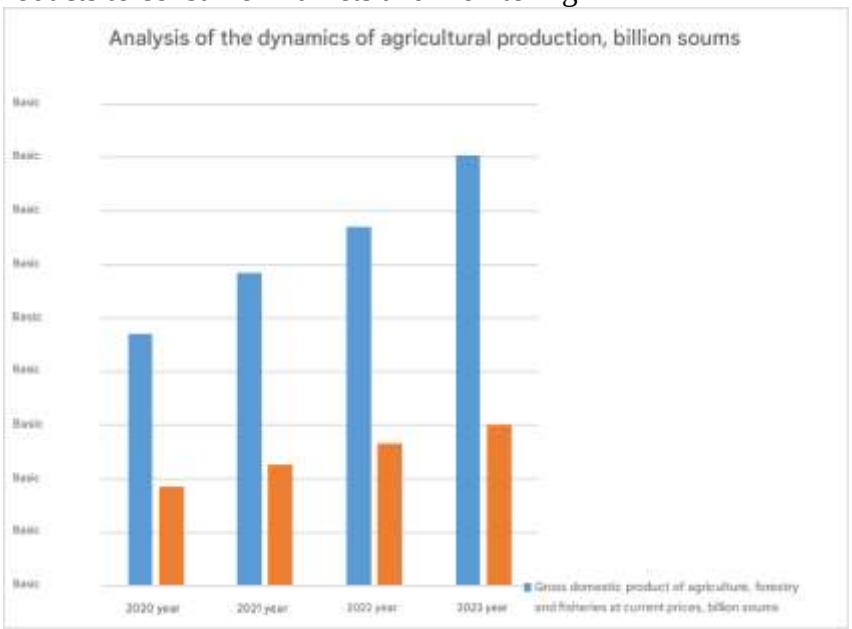
2. Loading and unloading operations

3. Transport and handling system

4. Storage, cooling or processing process

5. Documentation and certification

6. Delivery of products to consumer markets and monitoring



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Results

The results of the analysis showed that the volume of agricultural production in Kashkadarya region increased by **104.3%** compared to 2022 at the end of 2023. This increase was ensured by the following factors:

• Application of new agricultural technologies
• Improvement of irrigation systems
• Expansion of the scale of farms
• Increased demand in local markets

However, the logistics infrastructure for timely storage and delivery of products is not sufficiently developed. This leads to losses, especially in seasonal fruit and vegetable products.

Discussion

The study shows that by improving the agrologistics system:

• Reducing losses in storage of products by **30–40%**
• Optimizing transportation and sales costs by **10–15%**
• Ensuring market continuity
• Reducing seasonal fluctuations in product prices

The establishment of agrologistics centers in the region will serve to strengthen the system of year-round delivery of products to markets and export destinations.

Conclusion

The systematic introduction of logistics services in agriculture plays a key role in reducing the cost of products, preserving the crop without losses, ensuring prompt delivery while maintaining quality, and ensuring the stability of the agricultural market. The development of agrologistics centers, expanding refrigerated warehouses, modernizing the transport fleet, and introducing electronic trading systems are important strategic tasks for the Kashkadarya region.

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