



PROSPECTS FOR THE DEVELOPMENT OF FRUIT AND VEGETABLE FARMING IN UZBEKISTAN

Turayeva Muyassar Rasul Qizi

International Center for Strategic Development and Research in Food and Agriculture.

ABSTRACT-----

The fruit and vegetable farming sector in the Republic of Uzbekistan is considered one of the most important branches of agriculture, contributing significantly to the country's economy and export potential. The existing natural and climatic conditions provide vast opportunities for the development of this sector. The government has adopted a series of resolutions and decrees aimed at rapidly advancing fruit and vegetable farming, modernizing the sector, and increasing export volumes. This article analyzes the prospects for the development of fruit and vegetable farming, the financial support system, and the importance of innovative technologies.

KEYWORDS. *Uzbekistan, Fruit And Vegetable Farming, Agriculture, Export, Financing, Innovative Technologies, Intensive Orchards, Irrigation Systems, International Standards, Investments.*-----

INTRODUCTION

It is well-known that the existing natural and climatic conditions in our country provide opportunities for the sustainable development of agricultural products, particularly fruit and vegetable farming. The President and the government of the Republic of Uzbekistan have placed significant emphasis on the development of fruit and vegetable farming as a priority direction in the transition of the sector to market relations. This is because a noticeable portion of the country's currency revenue is generated through the sale of fruit and vegetable products in foreign markets, which underscores the importance of fundamentally reforming and rapidly developing this sector.

In particular, in recent years, a number of decrees and resolutions have been adopted. These include the Decree of the President of the Republic of Uzbekistan dated March 29, 2018, No. PF-5388, "On Additional Measures for the Rapid Development of Fruit and Vegetable Farming in the Republic of Uzbekistan," and the Decree dated October 23, 2019, No. PF-5853, "On Approval of the Strategy for the Development of Agriculture in the Republic of Uzbekistan for 2020-2030." Additionally, the Resolution of the Cabinet of Ministers dated October 17, 2018, No. PQ-3978, "On Additional Measures to Increase the Efficiency of Exporting Fruit and Vegetable Products to Foreign Markets," and the Resolution dated March 14, 2019, No. PQ-4239, "On Measures to Develop Agricultural Cooperation in the Fruit and Vegetable Sector," can be cited.

ANALYSIS AND DISCUSSION

Speaking about the role of the fruit and vegetable sector in the economy of Uzbekistan, overall, the economic reforms being implemented in this sector in 2022 are creating opportunities to address the following economic and social issues: In economic terms - fruit and vegetable production, accounting for 32.2% of the total agricultural output (8.7% of the country's gross domestic product), is one of the main sources of income for the population in rural areas. It has a direct impact on the development of several industrial sectors. Furthermore, this sector holds a key position in the country's agricultural exports. In social terms - the effectiveness of sustainable development in fruit and vegetable production directly influences not only the living standards of the rural population but also the social well-being of the entire population of the country.

With the rapid growth of the world's population, people's need for food is also increasing day by day. In this context, establishing the production of fast, affordable, and high-quality products remains one of the most pressing issues. Accordingly, in our republic, consumer demand for food, particularly agricultural products in the market, is constantly changing. At the same time, great importance is being attached to preventing market shortages and expanding, developing, and processing agricultural products in our republic. As evidence of this, the Decree of the President of the Republic of Uzbekistan dated April 5, 2023, "On Additional Measures to Expand and Support the Production and Processing of Agricultural Products in 2023" serves as a clear example. According to the resolution, forecasts for the production of agricultural products in 2023 are presented.

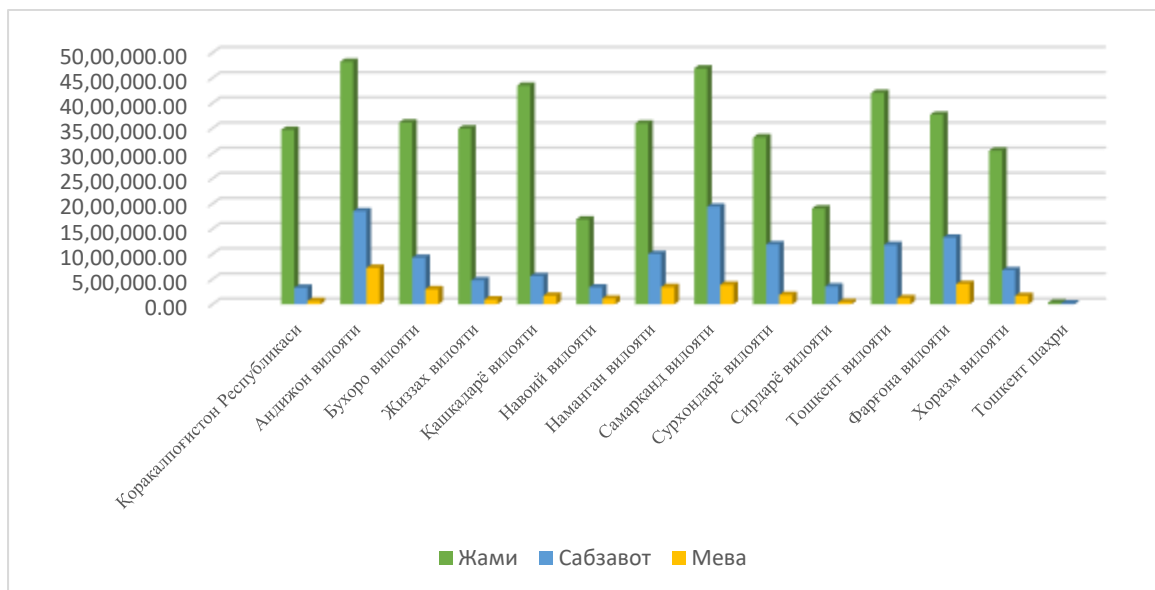


Figure 1. Description of forecast indicators for the harvest of agricultural products and fruits and vegetables for 2023

If we pay attention to the data in Figure 1, then the forecast for the cultivation of fruit and vegetable products in the regions of our republic for 2023 is presented. Andijan region occupies the highest place in terms of fruit production by region, while Syrdarya region and the cities of Tashkent are in the lowest places. In Fergana, Namangan, and Samarkand regions, an average of 360 thousand tons of fruit products are grown. In terms of vegetable production, Andijan and Samarkand regions are expected to achieve high results in our republic. The Republic of Karakalpakstan, Syrdarya and Navoi regions are expected to show the lowest indicators. Surkhandarya, Tashkent, and Fergana regions are expected to show average indicators. If we analyze in relation to the total volume, the volume of vegetable production in our country is significantly higher than the volume of fruit production.

According to the resolution, to increase the average income from each hectare of irrigated agricultural land to 4,800 US dollars, measures outlined in Figure 2 are to be implemented. Through the application of innovative technologies in 2023, it is necessary to achieve high yields and increase income from cotton, grain, fruits and vegetables, and other agricultural crops. In fruit growing and viticulture, 4 hectares of greenhouses are to be established to propagate 8 million certified seedlings in "in-vitro" laboratories. For vegetable cultivation, intensive production methods are to be organized on 28,200 hectares. Additionally, it is essential to ensure extra income by planting secondary crops on 783,000 hectares of land freed after grain harvest.



Figure 2. Directions for the development of agricultural products and fruit and vegetable growing

Propagation of high-quality fruit and grape seedlings in existing in-vitro laboratories in the republic:

1. Preparation of 8 million seedlings, welds and plants, which is 8 million seedlings, which specialize in the existing fruit-grape liabilities in the country.

2. Organization of planting and maintenance of plants grown in the laboratory in open and closed production of farms.

3. The involvement of loans from international financial institutions is set.

To build fresh fruit gardeners and vineyards to increase fruit production and grape cultivation.

1. 25,000 hectares in the regions and the construction of 35,000 hectares of vineyards.

2. Take measures for the required seedlings and other material resources.

3. The reconstruction of 8,000 hectares of unusable links and 3,500 hectares of users of users.

4. Study of the reserves and composition of groundwater, introducing the irrigation system (drilling of vertical wells) for the intensive gardens to be built.

5. Practical assistance to the entities introduced into drip irrigation technologies.

To take measures to increase the production of 25 import-substituting types in order to develop the value chain in the food network. 1. Gradual expansion of raw materials for the food industry. In this case, the processing capacity is 3.2 million tons of fruit and vegetable, 3 million tons of milk and 450,000 tons of meat; The level of processing is scheduled for 4% in fruits and vegetables, and meat to increase measures to increase by 22%, 28% in milk. Provide agriculture and food exports to \$ 1.6 billion.

1. The diplomatic missions abroad form a list of major sales networks and a portfolio of orders.

2. Analysis of the price-conjuncture of the main type and vegetable products in foreign markets.

3. Exports of 2.5 million tons of fruit and vegetables.

4. Introduce the requirements of international standards (organic, global g.P. and others) to the enterprises of agriculture and food industry.

5. As part of GSP +, the volume of exports is 2 times.

6. Financial support of enterprises producing agricultural products and increase export geography.

The average income from every hectare of land in agriculture to 4.8 thousand US dollars. The use of innovative technologies is harvesting cotton, grain, fruits and vegetables and other agricultural crops and increasing income.

Establishing 4 hectares of greenhouses in "in-vitro" laboratories for the propagation of 8 million certified seedlings in fruit and grape cultivation.

Organizing intensive production on 28.2 thousand hectares in the vegetable sector.

Ensuring additional income by cultivating secondary crops on 783 thousand hectares of land freed from grain cultivation.

According to the tasks outlined in the strategy, key directions in 2023 include expanding the production of 25 types of import-substituting food products to develop the value-added chain in the food sector, gradually expanding the raw material base for the food industry, and increasing processing capacities to 3.2 million tons for fruits and vegetables, 3 million tons for milk, and 450 thousand tons for meat. Additionally, measures will be taken to raise the processing level to 18% for fruits and vegetables, 22% for meat, and 28% for milk.

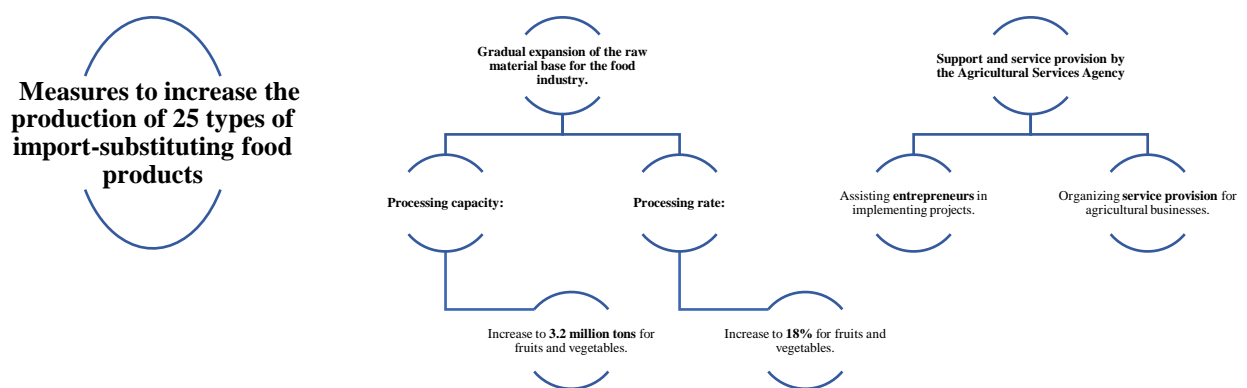


Figure 3. Measures to increase the production of 25 types of import-substituting food products

The Agricultural Services Agency considers supporting entrepreneurial entities and organizing service provision as key methods for implementing projects aimed at increasing the domestic production of agricultural and food import products in the country.

Due to reforms carried out in the sector, significant positive achievements have been made. First, assisting entrepreneurial entities and improving service provision will be elevated to a new level to ensure that the national



economy, including agriculture, operates effectively under market economy conditions. Second, a multi-structured economy has been formed in the agricultural sector. If economic policies are implemented correctly and systematically in accordance with market economy principles, it will be possible to enhance the agricultural value-added chain and increase the average income per hectare of irrigated land.

Ultimately, structural changes and modernization in agriculture will significantly increase the share of fruit and vegetable production. This will enable the efficient satisfaction of the growing population's demand for fast, affordable, and high-quality food, ensure the production of natural and organic products, improve reproductive health, and enhance export potential.

Most agricultural activities, particularly fruit and vegetable production, do not generate sufficient income to ensure self-financing conditions. As a result, the sector increasingly requires a well-developed system of budgetary support. The low profitability of sold fruit and vegetable products and high competition from imports have led to a decline in financial resources for fruit and vegetable production. This, in turn, necessitates a revision of financial structuring and utilization within enterprises in this sector.

The financial condition of enterprises specializing in fruit and vegetable production is negatively affected by the following factors:

- Disproportionate pricing of agricultural and fruit and vegetable products;
- Insufficient investment directed toward and attracted to the fruit and vegetable sector;
- Underdeveloped credit instruments, high-interest rates on loans, and difficult leasing conditions for purchasing machinery and technology;
- Lack of an effective and competitive market for insuring agricultural enterprise risks;
- Unfair taxation or excessive tax burden;
- High depreciation levels of fixed assets, among others.

Based on the above analysis, ensuring the stable development of the sector in Uzbekistan requires focusing on the following:

- Strengthening financial incentives for model enterprises operating in rural areas that specialize in the innovative and resource-saving storage and processing of agricultural products, as well as introducing tax, customs, and other benefits for them.

- It is advisable to economically incentivize measures aimed at increasing the preparation, storage, and processing of agricultural raw materials in each rural area of the country by developing compact and small industrial branches. This includes producing high-demand, competitive finished products for domestic and foreign markets through financial support measures such as foreign currency allocation, preferential taxation, and credit provision.

- Establishing export-credit organizations or assigning a responsible ministry or agency to address key issues such as providing pre-export financing to entrepreneurs, insurance, securing positions in foreign markets, managing "geographical, economic, financial, and quality risks," transport and logistics, obtaining necessary certifications, ensuring food safety and standards compliance, and supporting participation in international exhibitions and fairs.

- Setting up multi-sectoral agro-logistics complexes such as "Agropark" and "Agroindustry" in strategically convenient locations, based on digital innovative technologies. These complexes should provide a full range of facilities, including product sales, storage, processing, packaging, biolab services, standardization, and all pre-export procedures.

- Introducing "Fruit and Vegetable Clinics" and innovative laboratory services is considered an appropriate measure.

CONCLUSION

The government of Uzbekistan is implementing several strategic programs to develop the fruit and vegetable sector. In particular, measures are being taken to establish new intensive orchards, introduce innovative irrigation technologies, and cultivate products that meet international standards. However, challenges such as the financial system, logistics infrastructure, and the simplification of export processes still persist in the sector. In the future, attracting investments in agriculture, improving financial mechanisms, and expanding export markets will ensure the sustainable development of the fruit and vegetable sector.

The proposed measures aim to modernize Uzbekistan's horticulture sector, optimize land use, increase agricultural productivity, and enhance the country's export potential. By implementing a structured financial support system and fostering innovation, this strategy will contribute to sustainable economic growth and rural development. Proposals for enhancing the development of industrial orchards, vineyards, and greenhouses are:

1. Optimizing land use for intensive horticulture. To ensure the efficient use of land resources, it is proposed to identify and repurpose low-yield cotton and grain fields, foothill areas, and outdated orchards for the



establishment of modern, high-yield orchards and vineyards. This approach will increase agricultural productivity and contribute to sustainable land management.

2. Four-stage preferential credit allocation system. To support farmers and agricultural enterprises, a four-stage financing mechanism should be implemented:

Stage 1 – Up to 10% of the preferential loan to prepare the land for cultivation.

Stage 2 – Up to 40% of the loan for purchasing and planting seedlings.

Stage 3 – Up to 30% of the loan for installing irrigation systems.

Stage 4 – Up to 20% of the loan for orchard maintenance over a three-year period before fruiting.

3. Providing preferential loan terms. To facilitate investment in modern orchards, it is proposed that loans be allocated in proportion to the project's feasibility study, with a maximum of 500 times the base calculation amount per hectare. Farmers and investors should be able to access 7-year loans, including a 3-year grace period, at an annual rate 4% higher than the Central Bank's key rate, with a bank margin of 4%.

4. Enhancing agricultural value chains. To improve the economic viability of fruit and vegetable production, it is recommended to expand infrastructure for sorting, packaging, and processing agricultural products. This will support local producers in increasing export potential, improving product quality, and reducing post-harvest losses.

5. Encouraging technology adoption in horticulture. To improve efficiency, financial support should be provided for the adoption of modern irrigation techniques, including drip and sprinkler irrigation systems, ensuring sustainable water use and increasing yields in intensive orchards.

6. Strengthening export competitiveness. To enhance the global market position of Uzbekistan's horticultural sector, targeted measures should be introduced to support farmers in meeting international phytosanitary and quality standards, facilitating access to premium export markets.

REFERENCES

1. Decree of the President of the Republic of Uzbekistan No. PF-5388, "On Additional Measures for the Rapid Development of Fruit and Vegetable Farming in the Republic of Uzbekistan," March 29, 2018.
2. Decree of the President of the Republic of Uzbekistan No. PF-5853, "On Approval of the Strategy for the Development of Agriculture in the Republic of Uzbekistan for 2020-2030," October 23, 2019.
3. Resolution of the Cabinet of Ministers No. PQ-3978, "On Additional Measures to Increase the Efficiency of Exporting Fruit and Vegetable Products to Foreign Markets," October 17, 2018.
4. Resolution of the Cabinet of Ministers No. PQ-4239, "On Measures to Develop Agricultural Cooperation in the Fruit and Vegetable Sector," March 14, 2019.
5. Decree of the President of the Republic of Uzbekistan, "On Additional Measures to Expand and Support the Production and Processing of Agricultural Products in 2023," April 5, 2023.