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MAIN RISKS AND FACTORS OF FOOD SECURITY IN UZBEKISTAN

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Abstract
Agricultural production is characterized by a high degree of risk, due to the fact that the economy is carried out in open space and there is a high dependence on biological, climatic, and external conditions. The inelasticity of the supply of agricultural products in relation to changes in market prices, unforeseen situations in the world and changes in the regulatory framework governing agricultural production are significant sources of risk in agriculture.
Currently, the main risks for agriculture in the world are restrictions on international trade in agricultural products imposed by individual governments, difficulties with logistics leading to the interruption of the supply chains for its final consumers in domestic and foreign markets, as well as restrictions on the mobility of agricultural labor within countries due to with the quarantine measures in place. The main risks and factors affecting food security are population growth, increasing demand for land, water and energy resources, as well as dramatic climate change.

Keywords: Agricultural production, Government policy, Food production, Food security, Risk, Types of risks, Factors affecting food security

Introduction

The risk is interpreted as the probability of not obtaining the desired result, they also understand the very fact of a probable event, as a result of which only neutral or negative consequences can occur, they also understand the expected amount of damage, the object of a possible loss, random activity, estimates of forecast confidence, etc. Risk management is the process of making and implementing managerial decisions aimed at reducing the likelihood of an adverse outcome and minimizing possible project losses caused by its implementation in order to increase competitiveness. The following types of risks should be distinguished:
1) Natural and climatic risks
2) Production risk;
3) Price or market risk;

4) Institutional risk;
5) Personal risk;
6) Financial risk
7) Risks associated with emergency situations.

The pandemic-related collision with new political, economic and social factors, as a result of which humanity is now at a new crossroads in its development, has made it possible to take a fresh look at the crises taking place in the economy and society. The COVID-19 pandemic has revealed systemic problems in the production and sale of products, and the country's food security.

Data and Methods

In the process of research, theoretical methods of induction, deduction, generalization and comparison were used. The necessary materials are investigated on the basis of the methods of typological analysis, the synthesis of statistical data.

Main results

Among the risks for agriculture in Uzbekistan in the context of a pandemic are difficulties with the export of local fruits and vegetables to foreign markets. Over the past three years, its export volumes have grown from $570 million to $1.3 billion [15]. However, due to a decrease in the purchasing power of the population in Russia and Kazakhstan, which are the main importers of local vegetables and fruits, as well as the devaluation of their national currencies, a decrease in demand for this product.

At the same time, agricultural products from Uzbekistan are often sold cheaper than those of competitors, say, from Turkey and Chile, which can lead to a relative increase in demand for Uzbek fruits and vegetables. But at this stage it is difficult to make any specific forecasts for local exporters of fruits and vegetables.

Factors contributing to the decline in growth in the industry is a decrease in demand for the export of horticultural products in importing countries. A decrease in the purchasing power of the population of Uzbekistan as a result of a decrease in income and remittances of labor migrants as a result of the economic crisis caused by the pandemic may also have a negative impact.

The main risks and factors affecting food security are population growth, increasing demand for land, water and energy resources, as well as dramatic climate change. In recent years, as a result of the implementation of a number of measures in the country to strengthen food security, Uzbekistan has gradually strengthened its position in the world and gradually improved its status in global rankings. In the overall ranking from 2019 to 2021, having taken 78th place out of 113 in 2021, the total score of Uzbekistan

decreased by 0.7 units. Thus, the improvement in ranking positions is due to a large regression in achieving food security in other countries during the pandemic. The score allowed Uzbekistan to maintain its place in the group of countries with a moderate level of food security. In 2021, Uzbekistan ranked 21st out of 135 countries in the Global Hunger Index. It is worth noting that in 2020 the country was in 30th place. Kazakhstan is in 28th place, Kyrgyzstan is in 40th, and Turkmenistan is in 48th [13].

The ranking of countries is determined by summing up the following indicators - the proportion of the undernourished population, the proportion of children under the age of five who are underweight, the proportion of children under the age of five who are stunted, and the mortality rate of children under the age of five. However, the main challenges that need to be addressed are the problems of achieving a stable food supply for vulnerable segments of the population, increasing the purchasing power of low-income households, and preventing sharp fluctuations in prices and output.

An important factor in ensuring the competitiveness of agriculture is the development of value chains. The high costs of collection, transportation, storage, processing, packaging and certification in the delivery of products from the field to final consumers reduce the profits received by agricultural producers. For example, the average cost of mineral fertilizers in the world has increased by 70-80% compared to last year. The most significant increase was in the prices of nitrogen fertilizers, which are the basis for the growth of all agricultural crops. In the cost of nitrogen fertilizers, up to 80-90% are the costs of natural gas. Many plants for the production of nitrogen fertilizers simply stopped, because it is necessary to raise prices for nitrogen fertilizers by 5-8 times in order to maintain the economic feasibility of production. However, fertilizers, despite some recent weakening of gas prices, continue to rise in price, and demand remains high [10].

The low level of development of the food industry limits the opportunities for increasing the production of high value-added products. In order to attract investment in infrastructure development, developed financial markets, a favorable business climate, and measures to support producers and promote the development of value chains are required. The limited capacity for processing and packaging products in dekhkan farms, which produce the bulk of exported fruits and vegetables, leads to significant losses. At the same time, seasonal price fluctuations and volatility in market conditions also have a negative impact on their operations [11].

It is necessary to ensure the safety and quality of agricultural and food products by bringing the national legal framework for sanitary and phytosanitary control in line with the requirements of the World Trade Organization and the standards of target

international markets. In addition, partnerships between procurement, processing enterprises and exporters with dekhkan farms and owners of household plots, which account for more than 70% of gross agricultural output, are not sufficiently developed. The lack of legal protection for individual land use rights currently limits effective land management and limits investment. Clear and transparent mechanisms for the distribution of land plots and protection of the rights of land users have not yet been fully developed. In addition, the lack of legal sub-leasing mechanisms hinders the transfer of agricultural land to users with the greatest demand and potential.

Of the 20.2 million hectares of agricultural land, only 20.7% are irrigated. Over the past 15 years, the availability of irrigated land per capita has decreased by 24% (from 0.23 ha to 0.16 ha). This is a result of population growth, reduced water supply and the transfer of agricultural land to other categories of the land fund. According to forecasts, over the next 30 years, the area of irrigated land may decrease by another 20-25%. Insufficient level of guarantee of the right to land use hinders the growth of the efficiency of farm management and limits the attraction of investments [1].

Currently, clear and transparent mechanisms for the distribution of land plots, as well as the protection of the rights of land users, have not been fully developed. It also does not provide for the possibility of subleasing land plots, which prevents the transfer of agricultural land to users with great potential. About 80% of the country's water resources are formed by transboundary watercourses. This highlights the importance of inter-regional cooperation for sustainable water management in Central Asia and in the Republic of Uzbekistan in particular. In the country, 70% of irrigation networks do not have anti-filtration coverage, as a result of which part of the water is lost during transportation to the fields. The existing irrigation infrastructure, most of the pumping stations have been in operation for more than 30-40 years and need to be reconstructed or overhauled. At present, only 1.7% of irrigated lands have drip irrigation. Given the high dependence of agriculture on irrigation, the situation may worsen with increased aridity as a result of climate change and the continued use of traditional irrigation methods.

According to the forecast of the World Resources Institute, by 2040 Uzbekistan will become one of the 33 countries with the largest water deficit. Reduced yields will have serious negative impacts on food security and the balance of payments, highlighting the need for a shift towards sustainable water management and resource-saving practices in crop production. The lack of a mechanism for reimbursing the cost of providing water for agriculture hinders the widespread introduction of water-saving technologies.

The bulk of government funding for the sector is spent on irrigation (63%), used for cotton and cereal production. Most of the budget funds are spent on paying for electricity for pumping stations, as a result, the costs of operation, maintenance, development, and modernization of irrigation and drainage systems are not fully covered. At present, public funding for the provision of general services is very low and without a strategic plan. There is no link in the budget system between international financial and credit programs to support the sector (more than $3.5 billion) with major government investment programs or strategic planning processes [15].

Many of the local varieties of agricultural plants have low yields and do not meet the requirements of foreign markets. There is an increasing dependence on expensive and unadapted imported crop varieties.

Uzbekistan is ranked 88 out of 180 countries according to the 2020 Environmental Performance Index (EPI), which quantifies performance across 24 indicators in 10 categories covering environmental health and system viability.

Natural resources, if used in a sustainable manner, have the potential to contribute to growth and poverty reduction as Uzbekistan has a rich resource base including natural gas, oil, gold, copper, lead, zinc, tungsten and uranium. However, the irrational exploitation of these resources has led the country to serious environmental problems. The effects of climate change, degradation of natural resources, and toxic waste from mining and agriculture also seriously limit the prospects for the country's future economic growth, as well as the opportunities of the population.

From 2009 to 2017, water use in agriculture accounted for 89-92% of the total water used, while about a third of the total water used in this sector is wasted. Losses due to inefficient water use are estimated at around 8 percent of GDP. By reducing or eliminating losses, the country would solve the problem of water scarcity and save enough water to mitigate the problem of changes in available annual water resources caused by variable rainfall (SDG 6.4) [4]. However, despite ongoing institutional reforms in this area, the scope of water-saving technologies is not expanding at a satisfactory pace. In 2019, the total area covered by water-saving technologies reached only 9.6 percent of irrigated land, and according to the recently adopted Agricultural Development Strategy for 2020-2030, the goal is for this figure to reach 32 percent by 2030 [2].

At the same time, the analysis showed the presence of interrelated problems and needs in ensuring an efficient, resource-saving and environmentally friendly economy in the face of climate change. In particular, accelerated industrialization and population growth significantly increase the economy's need for resources, as well as

increase the negative anthropogenic impact on the environment and the growth of greenhouse gas emissions [8].

The low level of energy efficiency of the economy, the irrational consumption of natural resources, the slow renewal of technologies, the weak participation of small businesses in the implementation of innovative solutions for the development of the "green" economy hinder the achievement of priority national goals and objectives in the field of sustainable development of the country.

It is worth noting that solar energy in Uzbekistan is a very promising area of development. The potential of solar generation in the country is from 525 to 760 billion kWh.

Despite the fact that the share of agriculture in the total volume of gross domestic product tends to decrease, high growth rates of agricultural production are observed. In particular, in 2020, the volume of agricultural production increased by 2.2 times compared to 2016, amounting to 249,754.5 billion soums, including crop production reached 123.6 trillion soums. sum, livestock products - 126.2 trillion. sum [15].

In the structure of GDP the share of agriculture, forestry and fisheries in 2020 amounted to 28.2%. This year, the growth rate of products (services) of agriculture, forestry and fisheries, compared to the corresponding period of 2019, amounted to 103.0%, including in crop production - 103.4% and livestock - 102.1%.

Conclusion

It is necessary to develop and effectively implement a state policy aimed at providing safe and quality food at stable prices for the entire population, namely:

- Improvement of mechanisms for providing food to socially vulnerable segments of the population, as well as the integration of agricultural producers with objects of social importance;
-Introduction of a food security assessment system and ongoing monitoring based on internationally recognized methodologies and best practices;
-Development of long-term programs to promote a culture of healthy eating;
-Development of sectoral programs to intensify the production of socially significant types of products;
- Carrying out research work aimed at increasing the productivity of animal husbandry, sustainable intensification of the production of fish and poultry meat, as well as milk.
-Introduction of a system of intervention purchases in the domestic market of agricultural products;

- Improvement of mechanisms for providing food to socially vulnerable segments of the population, as well as the integration of agricultural producers with objects of social importance.

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