

AGROTURISM AS AN IMPORTANT FACTOR IN ENSURING FOOD SECURITY*Abdullayeva Hamidaxon Rustamjon kizi**Fergana State University PhD student**Muminova Sevarahon Israiljon kizi,**Fergana state university majoring in Geography 1st year master's student**Ortiqova Mashxura Xabibullo kizi**Fergana state university majoring in Geography 1st year master's student*

Annotation:the article considers the work carried out in Uzbekistan as well as in the world to ensure food security and in this regard. Agrotourism has been selected as an important factor offering new approaches and solutions to food security, and the importance of this area has been studied and analyzed. Priority areas of Sustainable Development of rural areas and opportunities for food security of agrotourism have also been identified.

Keywords:agrotourism, agroecology, agrotechnical measures, anthropogenic pressure, agroinnovations.

Introduction. Food security depends on a wide range of socio -economic,demographic and environmental factors and is one of the main components of a country's development. The four components of food security (food security, The state policy on food security is developed and implemented in terms of its availability,affordability,use and sustainability. Population growth,increasing demand for land,water and energy resources,as well as abrupt climate change are the main factors affecting food security.

Food security is the economic condition of a state that guarantees the full coverage of the consumption needs of all segments of the population, taking into account their physical,social,and economic capabilities,compliance with safety indicator standards,and conditions for the production of food products with high nutritional value, in order to lead a healthy and active life.

reform the country's agriculture,in particular,to improve the state administration system in the sector, widely introduce market relations,strengthen the legal basis of relations between entities that produce,process and sell agricultural products,attract investments to the sector,introduce resource-saving technologies, and provide agricultural producers with modern equipment.

At the same time,the lack of a long-term strategy for agricultural development has led to the ineffective use of land and water resources. It is hindering the use of land, attracting investments to the sector,ensuring high incomes for producers, and increasing the competitiveness of products. Diversifying production,improving land and water

relations, creating a favorable agribusiness environment and a high value-added chain, supporting the development of cooperative relations, widely introducing market mechanisms and information and communication technologies into the sector, as well as effectively using scientific achievements are some of the urgent issues.

Literature review and methodology : Agrotourism plays an important role in ensuring food security. On the one hand, it helps to improve the economic situation of agricultural producers, and on the other hand, it plays an important role in providing local and environmentally friendly food products to consumers. It also creates opportunities for improving skills in ensuring food security, sustainable production and the use of ecological methods through tourism activities.

Many scientists have conducted scientific research in this area. In particular, Prof. J. Beulens (Netherlands) reviews the scientific foundations and practical approaches to risk analysis and management in ensuring food safety [3]. DR Fiona (Great Britain) and D. Millan (Great Britain) (UK) have studied the importance of agritourism in ensuring food security and analyzed the relationship between agriculture and tourism. Their research shows that through agritourism, local farmers have the opportunity to offer their products directly to consumers, while at the same time they emphasize that through this way they can provide tourists with information about the cultivation, preservation and processing of these products.

Prof. Dr. Vito (USA) has studied food security through his research on agritourism. His work has shown how integrating agritourism with local food systems can have a positive impact on ensuring food security.

Results and Discussion: As a result of measures taken in recent years to develop the food industry in the republic, attract investment funds to the sector, and support export activities, the volume of food production has exceeded 6.1 billion US dollars, and their annual export volume has exceeded 510 million US dollars. Also, over the past three years, the production of 75 types of import-substituting food industry products worth 289.9 million US dollars has been ensured, and the volume of imports has decreased by 7.4 percent. The share of the food industry in the republic's industry has increased from 14 percent to 16.6 percent [7]. At the same time, the need to ensure food safety and healthy nutrition of citizens of the Republic of Uzbekistan requires the implementation of state policy in a new way and in line with internationally recognized advanced practices. According to the World Bank's Country Partnership Program for Uzbekistan (World Bank, 2016), climate change will lead to higher temperatures, greater variability in precipitation, and an increase in the occurrence of extreme weather events.

Largely dependent on changes in weather and climate conditions (temperature, drought, precipitation, and sudden changes in river flow), and is considered to be more sensitive than other sectors of the economy. Today, the world is experiencing a number of negative consequences, such as increasing anthropogenic pressure on the environment and natural resources, unsustainable agriculture in the context of global climate change, water scarcity, biodiversity loss, and soil fertility decline and degradation.

It is difficult to imagine the timely development of measures and actions to adapt to the expected climate changes and weather conditions in each country, and the correct implementation

of agrotechnical measures to obtain high and stable yields, without specialized agro-meteorological monitoring and services.

Of the 20.2 million hectares of agricultural land in Uzbekistan, only 20.7 percent is irrigated. Over the past 15 years, the area of irrigated land per capita has decreased by 24 percent (from 0.23 to 0.16 ha). This situation is due to population growth, reduced water supply, and the transfer of agricultural land to other land fund categories. According to forecasts, over the next 30 years, the area of irrigated land another 20-25 percent contraction possible. Country water resources About 80 percent of the water is generated in transboundary watersheds. This situation highlights the importance of regional cooperation for sustainable water resource management in Central Asia, and in particular in the Republic of Uzbekistan. 70 percent of irrigation networks in the country do not have anti-filtration coatings, as a result of which part of the water is lost during the process of delivery to the fields.

The existing irrigation infrastructure, most of the pumping stations, are more than 30-40 years old and need reconstruction or major repairs. Currently, only 1.7 percent of irrigated land is equipped with drip irrigation. The situation is likely to be further complicated by the continued use of traditional irrigation methods due to the high dependence of agriculture on irrigation and the sharp increase in droughts as a result of climate change [6].

According to the World Resources Institute, by 2040, Uzbekistan will become one of the 33 countries with the highest water stress. Reduced productivity will have serious negative consequences for food security and the balance of payments, which will create the need for sustainable management of water resources and the use of resource-saving technologies in the cultivation of agricultural crops.

It requires the implementation of state policy in the field of sustainable development of agriculture and the food chain in the future based on new approaches. The Strategy of the Development of Agriculture of the Republic of Uzbekistan for 2020–2030 serves to implement these tasks. As a result of the implementation of a number of measures to strengthen food security in our country in recent years, Uzbekistan has managed to strengthen its position in the world and gradually improve its position in global rankings. In 2018, the Republic of Uzbekistan ranked 52nd out of 119 countries on the Global Hunger Index, achieving a “ moderate ” level with an indicator of 12.1. About 16.4 million of the country's population (49.4 percent of the total population) live in rural areas (2018). The country has a high birth rate (23.3 per thousand) and, accordingly, a surplus of labor in rural areas. People under the age of 25 make up 45.5 percent of the population, and those under the age of 30 make up more than 55 percent.

Therefore, achieving a stable food supply for the vulnerable population, increasing the purchasing power of low-income families, and preventing sharp fluctuations in prices and quantities of products are among the problems that need to be solved. The main goal of this priority area is to develop and effectively implement a state policy aimed at ensuring food security for all residents of the republic. The priority area is aimed at providing the population with safe and high-quality food products at stable prices. This will contribute to achieving the Sustainable Development Goals (SDGs) of the Republic of Uzbekistan, including the goals set out in the UN SDG 2 " End hunger, ensure food security, improve consumption and promote sustainable agriculture. " At the same time, effective management of natural resources is a key

priority for the sustainable development of agriculture and rural areas, aimed at reducing the negative consequences for the environment and climate resulting from the irrational use of natural resources.

In ensuring food security, it is necessary to pay special attention to the development of agrotourism. Agrotourism has a significant impact not only on the development of agriculture, but also on the sustainable provision of food to the population. This contributes to maintaining food security at the macro- and microeconomic, environmental and social levels. Agrotourism has a multifaceted impact on food security. These impacts can be seen in the following areas :

– Village farm working release Stimulation. Agrotourism activities stimulate agricultural production, as tourists visit agriculturally developed regions to purchase agricultural products and get acquainted with the technologies of their preparation. As a result, various areas of agriculture develop, new markets open up for farmers. It leads to the quality of food products meeting the requirements and an increase in their production volume.

– Stable agrarian working production. Agrotourism serves to establish modern production in the agricultural sector and ensure sustainable growth. As a result, conditions are created for the production of environmentally friendly, environmentally friendly products. In addition, the specific directions of agrotourism often require work with qualified agronomists and ecologists, which helps to ensure the sustainability of the agricultural sector.

– Agrotourism through food resources distribution. Agrotourism is linked to the local food production process, ensuring the export of local products to the market and helping to regionalize production. Farmers are interested in introducing tourists to agricultural products directly, as well as hosting them on their farms. This, in turn, identifies new markets for local farmers and producers.

– Low profitable of the regions ensuring economic development. Agrotourism can become one of the main sectors of economic importance. Agrotourism will create new jobs in rural areas, additional sources of income will appear for the effective organization of agricultural activities. This will help improve the living conditions of the population and develop agriculture, especially in low-income regions.

– Ecological development and nature conservation. Agrotourism also attracts people to nature conservation activities through ecotourism routes. This type of tourism usually has a low impact on the environment and contributes to the conservation of natural resources. In addition, agrotourism increases interest in farms that are focused on the production of environmentally friendly and sustainable products.

Although the country has minimum agroecological standards, most of them are based on outdated technologies. Environmental factors are not taken into account in the development of agricultural practices. Integration of environmental factors is required in the development of standards and mechanisms for improving agroecological practices and protecting natural resources. Ensuring rational and efficient use of natural resources and protecting the environment in the sustainable development of agriculture is the main goal of this priority area. The priority areas for ensuring the sustainable development of rural areas are the following :

1. Agrotechnics and agroinnovations Introduction – Development of agriculture and livestock farming, increasing productivity, and rational use of natural resources through the introduction of modern agricultural technologies.

2. Energy and infrastructure development – Improve electricity, gas, and water supply in rural areas, ensure environmental cleanliness, and expand access to communications.

3. Conserving natural resources and ensuring ecological sustainability – Conserving, restoring, and sustainably managing land, water, and other natural resources.

4. Agricultural Processing – Promote the development of the agricultural sector by increasing the processing and export potential of agricultural products.

5. Social infrastructure and medical services - Improving the living standards of the rural population, improving healthcare, education, and social services.

efficient use in agriculture – Use water resources wisely and efficiently management, solving problems related to water shortages.

7. Job creation and employment of the population - Creation of jobs in various sectors in rural areas, development of small and medium-sized businesses.

8. Development of rural tourism - Exporting agricultural products and increasing the income of the population through the development of tourism based on agriculture, nature and cultural heritage.

investments in agriculture and infrastructure.

10. Training specialists in agriculture - Training highly qualified personnel, implementing education and training programs for the sustainable development of agriculture.

Conclusion. The process of food security requires the active use of modern geographic information systems (GIS) and information technologies. The level of public services, as well as transport and information and communication links in rural areas, remains low. It is necessary to develop comprehensive strategies and programs based on a detailed assessment of territorial needs and taking into account competitive advantages. Support measures implemented in the agricultural sector are in most cases directly aimed at farmers and other agricultural producers.

When analyzing data from foreign countries, it was observed that the economic development of rural areas is directly related to the development of agriculture and that only then can success be achieved, and that reforms based on subsidies aimed at solving important socio-economic problems of neighborhoods are ineffective.

In ensuring food security, it is of great importance to take into account socio-economic and environmental factors. In particular, one of the main elements of the concept of food security is its geographical aspects, which cover territorial issues related to food production, distribution, and consumption. The distribution of food resources between territorial units, i.e. districts, regions, and countries, production, consumer demands, environmental conditions, and economic infrastructure of the regions clearly determine these processes. In ensuring food

security, Agrotourism helps to strengthen the overall food security system of the country by increasing the efficiency of local farmers and industries, supporting environmental sustainability, and encouraging the production of high-quality products.

References:

1. Uzbekistan Republic president's Uzbekistan Republic village farm development for 2020-2030 intended strategy confirmation Decree No. pf-5853 of October 23,2019 on.
2. Abduganiyev A., Abduganiyev AA Agrarian politics and food safety - (textbook) - T.: TSIU, 2004.
3. Beulens J. "Food safety oath transparency in food chains oath networks Relationships oath challenges " article 2005, Food Control.
4. Ustoychivie razvitieselskogo Khozyaysva I selskikh territory : Zarubezhniy opit i problem Rossii,- M.: T- vo nauchnih izdaniy KMK. 2005.
5. www.lex.uz - National database of legislative documents of the Republic of Uzbekistan.
6. www.agro.uz - Portal of the Ministry of Agriculture and Water Resources of the Republic of Uzbekistan.
7. www.stat.uz - Portal of the State Statistics Committee of the Republic of Uzbekistan
8. www.fao.org - Portal of the Food and Agriculture Organization of the United Nations.