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## FOOD SECURITY PROBLEMS AND SOLUTIONS IN THE DIGITAL ECONOMY

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### **ABSTRACT**

*Food security is an important global issue facing many challenges in the digital economy. The use of digital technologies has disrupted traditional food systems, leading to changes in food habits, cyber security threats and food waste. This article identifies the challenges facing food security in the digital economy and explores ways to promote sustainable agriculture, invest in food processing technologies, promote online markets for farmers, promote healthy food choices, and improve cyber security. provides sustainable solutions such as supply and reducing food waste.*

**Keywords:** *Food security, challenges, solutions, digital economy, sustainable agriculture, food processing technologies, online markets, healthy food choices, cyber security, food waste.*

### **INTRODUCTION**

Humanity has become accustomed to taking new achievements and successes in the field of science and technology as a matter of course. At the international level, population growth is required to meet the demand for natural resources and agricultural products, to ensure the rational use of resources, to achieve progress in the conditions of sustainable development by introducing innovative technologies of scientific achievements and forming a regulatory and legal framework.

Therefore, the main goal is to increase the volume of processing of food products based on international quality standards, to introduce a system of state support for the production of local products that are competitive in domestic and foreign markets.

Food safety is one of the most urgent tasks facing the countries of the world. The UN is also saying today that it is time to completely change the approach to food production and distribution.

The President's decision of September 9, 2020 "On measures for the rapid development of the food industry of the Republic and the full supply of quality food products to the population" was aimed at the implementation of this goal.

In particular, during the official visit of President Sh. Mirziyoyev to Italy on June 9, 2023, in a meeting with the Director General of the UN Food and Agriculture Organization (FAO) Sui Dunyuy, it was food safety, fundamental scientific research, agriculture The development of a large-scale program for cooperation until 2030, which provides for the implementation of specific projects and activities in the digitalization of the Internet, modernization of agricultural sectors and other areas, was set as a priority.

On September 7 of this year, the head of state received Sui Dunyuy, director general of the UN Food and Agriculture Organization (FAO), who was in his country to participate in the international conference on food security, and discussed the threats to food security. opinions were exchanged on issues of combating today's threats, including at the regional level. The new cooperation program between Uzbekistan and FAO until 2030 includes modernization of agriculture based on scientific research and innovation, digitization of the agricultural sector, implementation of effective means of financial support and management of the agro-food system. it was agreed to introduce joint measures for the introduction of effective mechanisms.

## **METHODS**

There are different approaches to defining the meaning of the concept of "food security" in the economic literature. According to the most common definition, food

security is a state in which all people at any moment of time have access to sufficient amounts of safe food necessary for an active and healthy life [4]. According to this definition, food security is achieved through the physical and economic availability of safe and sufficient food

According to the economist T.Usakova, food security is the provision of the population of the state and society with food products for an unlimited period of time to ensure the all-round healthy physical and social development of each person under normal conditions and minimal health and work capacity in emergency situations. is to provide sufficient quantities and qualities for use at the level. This definition reflects the different meanings of food safety in normal and emergency situations. According to the definition given by V.G. Bulavko, P.G. Nikitenko and others, food safety is the ability of the state to ensure the necessary and sufficient production of products in the required quality and assortment and the balance of demand and supply of national products in the consumer market and it should be understood as the ability of agricultural enterprises, suppliers, processing and sales sectors.

By supporting this opinion of scientists, it is appropriate to put an end to misunderstandings about the concepts of "food security" and "food independence", including the fact that these concepts are sometimes used as synonyms in periodicals. we think that According to Uzbek scientist H.P. Abulqasimov, "Food security represents the ability of the country's population to provide itself with basic food products independently.

## RESULTS

Food security is a state of the economy in which, on the one hand, regardless of the fluctuations of the world markets, conditions are created to meet the consumption of the population in quantities corresponding to scientifically based indicators, and on the other hand, at the level of medical standards. -sustainable food supply is guaranteed, meaning the availability and use of sufficient, safe and nutritious food to meet people's nutritional needs and preferences at all times.

Determining the main directions of ensuring food security in Uzbekistan is carried out in order to further improve the well-being and quality of life of the population of our republic, to develop specific parameters for the full supply of food to the population. The effective development of the economy of Uzbekistan, the well-being of the population directly depends on the improvement of the indicators of ensuring food security based on the implementation of the food program.

## **DISCUSSION**

However, food security faces many challenges, especially in the digital economy. The digital economy is the use of digital technologies to create, buy, sell and distribute goods and services. The digital economy has disrupted traditional food systems, leading to food security challenges. This article discusses food security problems and solutions in the digital economy.

### **Problems:**

- **Changing food habits:** The digital economy has led to a change in food habits. People are relying on online food delivery services and e-commerce platforms to buy and sell food products. This has led to a shift in food preferences towards cheaper and more convenient fast food and processed food. This has led to a decline in the consumption of healthy and nutritious food, which is essential for food security.
- **Disruption of traditional food systems:** The digital economy has disrupted traditional food systems such as agriculture and food processing. Due to the dominance of e-commerce platforms, farmers are finding it difficult to access markets for their produce. This has led to a reduction in the production of healthy and nutritious food, which is essential for food security.
- **Cyber Security Threats:** The digital economy has led to an increase in cyber security threats, particularly in the food industry. Cybercriminals can hack into food production systems and disrupt food supply chains. This can lead to food shortages and affect food security.
- **Food waste:** The digital economy has led to an increase in food waste. E-commerce platforms and online food delivery services generate a lot of packaging

waste that ends up in landfills. This waste can be used to produce food or feed livestock, but instead pollutes the environment.

### **Solutions:**

✓ **Development of sustainable agriculture:** Sustainable agriculture is essential for food security. Governments and private organizations should promote sustainable agricultural practices such as organic farming to ensure the production of healthy and nutritious food. This can be achieved by providing incentives such as tax breaks and subsidies to farmers engaged in sustainable agriculture.

✓ **Investing in food processing technologies:** Investing in food processing technologies can help improve food quality and reduce food waste. Technologies such as food preservation, packaging, and storage help increase the shelf life of food, reduce spoilage, and prevent contamination. This helps ensure the availability of food, which is essential for food security.

✓ **Promotion of online markets for farmers:** Governments and private organizations should promote online markets for farmers to sell their produce. This will help farmers reach a wider market for their produce and increase their income. Online markets also help reduce food waste by ensuring that all products do not spoil.

✓ **Promote healthy food choices:** Governments and private organizations should promote healthy food choices by providing education and information to consumers. This can be achieved through public companies, food labeling and education programs. Consumers should be encouraged to make healthy food choices through incentives, such as healthy food discounts.

✓ **Ensuring cyber security:** Ensuring cyber security is important for food safety. Governments and private organizations must invest in cybersecurity measures to protect food production systems and food supply chains. This can be achieved by implementing cybersecurity protocols, conducting regular cybersecurity audits, and investing in cybersecurity training for food industry employees.

✓ **Reducing food waste:** Reducing food waste is important for food security. Governments and private organizations should help reduce food waste by

implementing policies and regulations that encourage food waste reduction. This can be achieved by providing incentives such as tax credits and subsidies to businesses that reduce food waste.

### **CONCLUSION.**

Food security is important for human well-being and the stability of societies. However, the digital economy has created challenges for food security such as changing food habits, disruption of traditional food systems, cyber security threats and food waste. To address these challenges, development of sustainable agriculture, investment in food processing technologies, promotion of online markets for farmers, promotion of healthy food choices, cyber security and food solutions such as reducing food waste should be implemented. Governments and private organizations play an important role in solving these problems and implementing these solutions.

Governments can provide policies and regulations that encourage sustainable agriculture and food waste reduction, while private organizations can invest in technologies that improve food processing and reduce food waste. Consumers also play a role in addressing food security issues by making healthier food choices and reducing food waste.

In conclusion, solving food security problems in the digital economy requires a multifaceted approach. Governments, private organizations, and consumers must work together to ensure the availability, access, and availability of sufficient, safe, and nutritious food. By implementing sustainable solutions, we can ensure food security for present and future generations.

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