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## DIGITAL TECHNOLOGIES IN AGRICULTURE

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**Abstract:** On this paper examines foreign experience in the implementation of digital technologies in smart agriculture, as well as the need to use automated systems in agriculture.

**Keywords:** Digital technologies, digitization, smart agriculture, automated systems, technology, agriculture, modernization, automation, water resources, land resources, farmers, consumers, agro-industry, crops, productivity, entrance department.

### Introduction

Today we can see the active use of digital technologies in all sectors of the economy. The agricultural sector, which plays a key role in improving the welfare of the people, is no exception. Extensive work is being carried out in Uzbekistan in this direction, a number of large-scale projects aimed at the digital transformation of agriculture are being implemented, which will radically change agriculture and accelerate the introduction of advanced and innovative solutions in the industry. Of course, the scientific approach is of great importance in achieving the set goals.

It should be noted that the use of digital technologies in almost all areas of human activity on a global scale is developing rapidly. Agriculture is no exception. Therefore, in recent years in your country, special attention is paid to the development of the digital economy in the industry.

It is estimated that 33 percent of the crop is lost in planting, cultivating, storing and transporting. In such a situation, "smart" or "smart agriculture" technologies that ensure the rational use of available land, water, logistics and labor resources are important.

Resolution of the President of the Republic of Uzbekistan dated December 11, 2020 "On measures to accelerate the introduction of water-saving technologies in agriculture" to achieve a stable supply of. In particular, the resolution stipulates that in 2021, in order to organize the leveling of 200,000 hectares of irrigated land with the help of laser equipment, the representatives of the agro-sector purchased similar units produced by local enterprises. 30% will be covered from the state budget.

This is very handy for farmers. Therefore, our specialists in the field pay great attention to the explanatory work on the benefits and advantages of such benefits and new technologies. This is due to the fact that the leveling of lands on the basis of laser devices saves water consumption by 20-25%, and increases the efficiency of its use by 30-40%. Irrigation time, labor and energy savings, as well as an additional 5-10 quintals per hectare, depending on the type of crop.

Department of Methods

Today, the opportunities for modernization of the agro-industrial complex are great: agriculture in the world is traditional in the field of high technology and is able to

create new technologies and changes to solve many practical tasks.

Digitization in agriculture reduces risks, adapts to climate change, and increases crop yields. Reducing the cost of production, increasing its quality and competitiveness, efficient use of resources and science-based approaches are the main tasks of digitization.

#### Results section

It simplifies the costs of agricultural producers to provide the necessary information, purchase and sale, reduce the supply chain from the industry to the consumer, reduce the cost of skilled labor. Entrepreneurs need to produce more food products with smaller resources, so significant advances in agricultural production technologies are required.

Working without digitalization is the loss of easy competition in the world. To be competitive in the market, it is necessary to predict product offers depending on the needs and preferences of consumers. To create the right management solution, agricultural producers need to master digital technologies such as satellite imagery, high-tech sensors, mobile applications and GPS systems.

The experience of countries with developed agrarian sector shows that production costs have been reduced by up to 20%: data from existing mobile or online applications, equipment, drones, satellites and other external applications are used. The most optimal solutions to adopt. New technologies allow you to search for all the ways to deliver the product from the field to the consumer and to satisfy the needs of the customers.

Digitalization is the main tool for the development of key areas of regulation of the agro-industrial complex, which are the availability of funding for ATC entities, the availability of trade markets and export development. Digitization of the agro-industrial complex will help increase labor

competitiveness, ensure food security and attract investment in the sector.

#### **Discussion.**

Agriculture plays a huge role in the country's economy. This is not only the state and its food population, but also the manufacturing sectors, primarily agricultural raw materials for light and food products. Its level of development determines the economic security of the country.

In unrealistic times, agriculture faces various challenges. The main ones are:

- the problem of depletion of land resources;
- high dependence on natural climatic factors;
- seasonality of production;
- Decrease in food overdose, etc.

Accelerating informatization today is the foundation for ensuring sustainable development in the future. Economic growth is also an innovation.

As mentioned above, agriculture as one of the national economies of many countries faces many challenges and problems. To solve them requires:

- Orientation of technology to the agricultural economy;
- improvement of used technologies;
- growth of human capital
- increase the protection of feed products in their production process.

"Intellectualization" of agriculture allows the use of modern technologies:

- conservation and restoration of groundwater and soil useful properties;
- ensuring environmental friendliness and pest control;
- Remote control of compliance of organic agriculture with certification requirements.

Extensive use of information technology in the work of the Inspectorate, including the

introduction of electronic information exchange with stakeholders, electronic documentation, of course, saves time and money of citizens and legal entities, further increases the efficiency of staff.

## Conclusion

In recent years, the agricultural sector in our country has become a multidisciplinary complex. Appropriate measures are being taken to increase exports of agricultural products and ensure financial and economic stability of suppliers. A number of positive results have been achieved in the process of modernization of all industries, rational use of land and water resources, introduction of modern energy-saving agricultural technologies and further deepening of modern market relations. As a result of agricultural diversification, the share of this sector in GDP has reached 17%, with an average annual growth rate of six to seven percent. More than 3.6 million people work in the agricultural sector of the economy.

The performance of the agricultural sector gives full confidence in the future prosperity of this sector. Given the steps taken by the government, this process will bear fruit in the near future.

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