

NUMBERING OF AGRICULTURAL LANDS

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Abstract

The purpose of this work is to develop the theoretical basis of digitalization of agricultural land use and monitoring of their condition. The main tasks of the research are solved by methods of comparative analysis. Integration of existing and developing information systems in agriculture, monitoring of agricultural land use was carried out.

Keyword: agriculture, "Center for Digitization of Agro-Industry", digitization, satellite monitoring, IoT technology.

Introduction

Nowadays, the population of the world is increasing year by year and the demand of the population for food products is increasing. It is no secret that the majority of food products are obtained from agricultural lands. This requires effective use of land resources and constant control. It is known that the land as an important part of the environment is characterized by its latitude, relief, climate, soil layer, vegetation, underground resources, water, the main means of production of agriculture, as well as all the national economy. Since it is the latitudinal basis of the placement of networks, the issues of surveying land areas require a unified state approach. This, in turn, determines the need to control land areas on the basis of systematic and complex observations.

Today, the Ministry of Agriculture is paying special attention to digitalization of the process, starting from the selection of suitable land for crop types, tilling it, collecting the grown crop and delivering it to consumers. This, of course, is important in ensuring transparency in this process, achieving efficiency, improving product quality, as well as eliminating artificial obstacles such as increasing or decreasing the need for agricultural products in certain regions. Currently, the state institution "Agroindustry Digitization Center" is implementing the lease of agricultural land, the rational use of land areas, and the automation of water resources management. Digitization is useful not only for those who are engaged in the field, but also for those who decide to engage in agriculture. Many issues that were abstract or incomprehensible at first are clarified. By providing open information, users can use the advantages and conveniences of the electronic platform themselves, without anyone's help. All the news related to the changing market demands and production of the same day takes place from the same platforms.

Today, in the reform of the sector, much attention is paid to the digitalization of agriculture, the introduction of market principles in the interaction between agricultural entities, the introduction of modern resource-saving and intensive agro-technologies. It will serve to improve the living conditions of our people, besides, it will not fail to show its influence on the



further increase of our export potential. Land monitoring is important for effective and rational use of agricultural land.

Monitoring of agricultural crops - measuring the areas planted with agricultural crops based on the indicators of the placement of crops, as well as monitoring the timely implementation of agrotechnical measures related to tillage carried out in the cultivated areas; monitoring of agricultural land - regardless of the form of ownership, on agricultural land of all categories of the land fund, including arable cropland, perennial tree plantations, gray land, hayfields and pastures, as well as a monitoring system for the condition of other types of land serving them (ditch, ditch, road, etc.) (except for land plots given to citizens for individual housing construction and housing improvement); The following are the main tasks of the monitoring of agricultural land and arable land: organization and implementation of a monitoring system for the types of agricultural land, their area and the state of use of these lands; ensuring the use of agricultural lands for the specified purposes; providing information to the competent agencies for the protection of agricultural lands in order to prevent cases of violations of the requirements of legal documents on land and to take appropriate measures in connection with the identified cases. Monitoring works on agricultural lands and cultivated fields are carried out periodically as follows:

- periodic monitoring - surveying of agricultural land by type and area every five years;
- current monitoring - annual monitoring of the state of agricultural land use;
- quick monitoring - daily monitoring of agrotechnical activities related to the planting of agricultural crops and tillage.

Introduction of a new system of monitoring agricultural lands and crops, prevention of agricultural land looting, further acceleration of land surveying, remote sensing and digitization, strengthening of the material and technical base, provision of qualified personnel. It is aimed to improve the provision and service system. The Ministry of Agriculture has established a geoportal system on agricultural land, and the following will be systematically maintained on this portal:

- indicators of crop placement in the section of contours of agricultural lands and their users;
- monitoring indicators for the cultivation of agricultural crops;
- information on cases of land law violations determined as a result of agricultural land monitoring;
- agricultural land productivity characteristics (point credit) and normative value indicators.

Currently, many types of satellite observations are used in agriculture to monitor, evaluate and predict the state of soil and vegetation cover, and to identify fire centers in necessary cases. Remote sensing data is also used in pest control. Satellite monitoring provides rapid monitoring of the condition of agricultural crops, forecasting of agricultural crops and other tasks in various fields of agriculture. Projects are being implemented to create a system for remote monitoring of agricultural lands of the agro-industrial complex to implement automated support of satellite images for online planning, monitoring and management of the agro-industrial complex.



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