

Features of Land Monitoring in Agriculture

Egamova Dilchehra Adizovna

Doctoral Student Of Bukhara Institute Of Natural Resources Management Of The National Research University Of Tashkent Institute Of Irrigation And Agricultural Mechanization Engineers

Husenov Shakhzod Shokirovich

Student of Bukhara Institute of Natural Resources Management of the National Research University of Tashkent Institute of Irrigation and Agricultural Mechanization Engineers

ABSTRACT: This article deals with land monitoring, the procedure for land monitoring in agriculture, the use of geographic information systems in land monitoring.

KEYWORD: Monitoring, land monitoring, agriculture, basic, periodic, geographic information system, land reporting, land monitoring data.

All lands of the Republic of Uzbekistan, regardless of their legal status, purpose and nature of use, are subject to land monitoring.

Land monitoring in the Republic of Uzbekistan is carried out on the basis of Resolution No. 496 of 23 December 2010 "On approval of the Regulation on Land Monitoring in the Republic of Uzbekistan".

Monitoring is carried out taking into account the purpose of land use, and the land fund is divided into the following subsystems according to the categories:

- monitoring of agricultural lands;
- monitoring of lands of settlements;
- monitoring of land for industry, transport, communications, defense and other purposes;
- monitoring of nature protection, rehabilitation, reactionary lands;
- monitoring of lands of historical and cultural purposes;
- monitoring of forest lands;
- monitoring of water fund lands;
- Monitoring of reserve lands.

Republican, regional and local land monitoring will be carried out according to regional coverage.

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Republican monitoring covers the entire territory of the Republic of Uzbekistan. Local monitoring covers individual plots of land and landscape-ecological complexes.

The condition of lands is assessed by analyzing a number of consistent observations (periodic, seasonal, diurnal) on the direction and intensity of changes, comparing the obtained indicators with the norms of land quality. Land use indicators are expressed in both absolute and relative terms (units of measurement) for a given period or date. Based on the results of land assessment, operational data, information, forecasts and recommendations are compiled, accompanied by thematic maps, cartograms, tables and diagrams describing the dynamics of changes, especially their direction and intensity.

Land monitoring is carried out by the State Committee for Land Resources of the Republic of Uzbekistan in a single method developed and approved with the participation of interested ministries, state committees and agencies. mapping is mandatory for all businesses and organizations.

Enterprises, organizations and organizations that thematically map lands and monitor their condition, regardless of departmental affiliation and forms of ownership, provide land monitoring services and state land cadastre with information on the quantity and quality of land within their competence. Copies of materials on the specified works are provided free of charge for input of information on

In turn, land resources services provide free materials to enterprises, institutions and organizations that thematically map the land and monitor their condition at their request.

Land monitoring is carried out in accordance with the principle of compatibility of different data based on a single system of classifiers, codes, metric units, standard data formats and normative and technical base, coordinators and heights.

The following information is used to obtain the necessary information for land monitoring:

- remote sensing (aerospace photography and observations);
- ground photography and observation;
- stock materials.

There are 3 groups of land observations according to their duration and periodicity:

- basic (initial observations of the actual condition of the objects of observation at the initial stage of land monitoring);
- Periodic (annual and over a year)
- Rapid (recording current changes), regular or one-time observations at intervals of less than one year.

Baseline data obtained from direct observation of the condition of arable lands, plots, landscape ecological complexes are summarized by districts, cities, fortresses, regions, the Republic of Karakalpakstan and the Republic of Uzbekistan in general, as well as by individual natural complexes.

Basic and periodic monitoring of lands:

- In the regions of the Republic of Karakalpakstan - the Department of Land Resources of the Republic of Karakalpakstan and the regions;
- In Tashkent - managed by the State Administration of Real Estate of the Main Department of Geodesy and Cadastre.

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- Basic and periodic monitoring of land using data:
- In cities and fortresses - the district and city state real estate cadastre of the Main Directorate "Uzgeodezkadastr";
- In the rest of the country, it is managed by the district services of the State Committee for Land Resources.

Departments of land resources of the Republic of Karakalpakstan and regions together with territorial bodies of the State Committee for Nature Protection of the State Land Cadastre of Tashkent city to local state authorities, the State Committee for Land Resources of the Republic of Uzbekistan no later than January 1 of each year, Provide information (reports) on the state of lands in the region to the State Committee for Nature Protection, send prompt information in case of detection of extremely dangerous and restricted processes. Businesses, organizations, institutions and individuals use land monitoring data for a fee.

Land monitoring is carried out at the expense of the state budget. Funding for interstate and international land monitoring programs is carried out in accordance with the agreements and treaties of the Republic of Uzbekistan with other countries and international organizations. Land monitoring materials on the objects are presented in the form of reports and cartographic materials signed by the executors, heads of departments and heads (institute, department, branch expedition).

The final data in the form of annual written reports and cartographic materials on land monitoring are discussed in the scientific and technical councils of regional production departments of land management and approved by the heads of institutes, branches, departments, expeditions. The annual reports are finally reviewed and approved by the provincial land resources departments. Yer monitoringi ma'lumotlari to'rt nusxada (ob'ektlar bo'yicha va yakuniy) tayyorlanadi. One copy remains in the department, one copy is sent to the regional department of land resources and two copies are sent to Tashkent to the State Committee for Land Resources of the Republic of Uzbekistan.

As of January 1, 2021, according to the district land report, the number of land users in Bukhara district is 1428. The total area is 129,725 ha, the total area of arable land is 19,307 ha, the area of perennial trees is 3,009 ha, the area of gray land is 674 ha, the total area of pastures is 52,532 ha, the total area of agricultural land is 75,522 ha, the total area of arable land is 5222/1163 ha. Lands of horticultural and vegetable associations are 252 hectares, forest lands 185 hectares, total non-agricultural lands 48581 hectares.

If we could accurately and reliably monitor the district's agricultural lands, we would have achieved high results in both the district's economy and the agricultural sector. This will ensure the creation of geospatial systems, which in turn will create an effective database for geodetic and cartographic work.

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