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IMPROVEMENT OF EARTH RESOURCE MANAGEMENT AND CONTROL MECHANISMS WITH THE HELP OF GEOINFORMATION SYSTEMS

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Abstract.
As with the management of other factors aimed at increasing the efficiency of land resource use, the management of land resources and their value is interconnected and mutually conditioned, with an important role in improving the management, distribution and use of land resources in countries with developed market economies. requires attention to this problem.

GPS (Global positioning system) it is a satellite navigation system, in which information on determining the coordinates of points and creating topographic maps is digitally stored. It combines 24 satellites located in 6 orbits at an altitude of 2000 km above the earth's surface into 1 network. Satellites go around the planet Earth twice a day, and each time transmits relevant information to the center. The GPS device stores this information digitally and this information is the source for creating the map. In order to facilitate the practical use of the GPS receiver, each manufacturing company has developed a manual for its use. It describes the receiver's standard and additional configuration, preparation for work, requirements for maintenance and other additional equipment, shows how to install the receiver, start work and collect data.

All are brought to a high-phase center that receives the GPS signal. For this, the distance called the height of the antenna or device is measured and it is entered

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into the receiver. A receiver is connected to collect data, the receiver performs automatic control tests, searches for and records all satellites as possible. When the recording is finished, when the receiver is disconnected, the file is automatically locked and the collected data is saved.

The GPS-receiver is used in geodesy and for navigation purposes, the global positioning system "Navstar" is used. All satellites located in the field of view of the antenna receiver are observed without the need for manual or forward programming on unrelated channel 12. In the navigation mode, civilian users can find absolute coordinates within 30-100 m, and military users can find absolute coordinates with an error of up to 1 m.

A receiver can calculate the position and speed of an antenna observing 3 satellites, and when it catches 4 satellites, it is possible to determine the 3-dimensional position and speed. Independent measurements are made every half second without interpolation and exatrapolation, and the position and speed of all satellites in view are calculated at the same time. In this case, instantaneous measurements from 4 satellites are used, which do not require the differentiation of coordinates to calculate the dynamic speed. The receiver can track 12 visible satellites on 12 independent channels. The sequence of the filming process is as follows.

The navigator is selected, the area is studied and the device is assembled according to the climate, it is entered into the coordinate system, connected to the satellite, and the layer is selected depending on the location by entering it into the layer band. Based on the area plan, a point is taken and a number is entered into the point. The resulting file is entered into the memory, the file is exported to the software and the data is enriched through the software. The GPS device can withstand any conditions. Pro Mark-3 GPS device, a product of "Thales" company, is being used in the field of regional land surveying. There are various advantages and possibilities of this tool, and by using them in the production process, together with economic benefits, high accuracy is achieved. For example, it is possible to place a map of the studied area or district in their memory, to record changes and information. The feature of these devices to store the traveled paths in memory guarantees the accuracy of tracking and monitoring data. Because only if the specialist assigned to the area conducts observation work in the specified areas, the GPS map will show the information that he was an expert in these areas.

In addition to monitoring, it has many other functions, such as measuring areas and distances, determining the location of objects with high accuracy, setting

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routes (directions) and many others, which are useful in the field of land surveying. Providing topological or cartographic objects in a unique appearance, color and symbol according to the characteristics of their use makes it very convenient for specialists to use. The widespread use of these tools in the future will greatly contribute to the development of the field. The consistent implementation of land reform in Uzbekistan, changes in land relations and ownership of land resources, the expansion of the independence of economic entities and the introduction of market mechanisms of economic management, led to the need to improve the management of land resources distribution and their use. In the conditions of the emergence of the market economy, managing the distribution of land resources and their use is an important factor in improving the use of natural and climatic potential, ensuring the integrity of the land as a means of production and as a territorial base for meeting the material and non-material needs of society, and increasing the efficiency of its use. During the transition from the administrative-command system of economic management to the market system, management of land resources begins to be carried out by economic methods. Their use requires an appropriate scientifically based base with specific principles, approaches and mechanisms from the point of view of its own model of reforming the economy of Uzbekistan.

Possession and use of tangible material factors in market conditions ultimately aims to solve two tasks for their owners:

- ensuring the growth of the market value of these factors;
- ensuring the growth of income from the use of these factors.

Therefore, the management of these physical factors, including the distribution of land resources and their use, in practice manifests the value of these factors, including the management of the value of land. This concept of management is the most popular for the market economy.

Like the management of other factors aimed at increasing the efficiency of the use of land resources, the management of land resources and their value are interconnected and mutually conditioned. Management of the distribution and use of land resources, contributing to the rational and efficient use of land resources, ultimately ensures an increase in the value of land resources in combination with the influence of other factors. On the other hand, the value of land resources has an active influence on the adoption of management decisions regarding the distribution of these resources, their use and their civil-legal turnover, that is, it allows to improve the economic component of land resources management in the

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conditions of the formation and development of the market economy. is a necessary economic factor.

The important role of land resource management in improving their distribution and use requires attention to this problem in countries with developed market economies. In this regard, it is worth considering the practice of these countries, which have accumulated a lot of experience in the evolutionary development of land relations and the participation of the state in solving these issues.

Based on the above, it is possible to make a number of conclusions that should be taken into account when improving the management system of distribution and use of land resources of Uzbekistan:

- in all developed countries, the state actively intervenes in land relations by legally and economically regulating land relations, controlling the use of land resources and their preservation;
- the land market (especially in relation to agricultural land) is strictly limited and controlled by the state, which is reflected in the speed of turnover of land plots;
- in developed countries, in order to maintain the leading role of the state in the management of land resources, there is a tendency to move from the ownership of land plots to the priority of their transition;
- in all countries of the world, the principle of priority of agricultural land ownership and land use has been officially announced and strictly implemented in order to protect productive agricultural land from being taken away for purposes other than agriculture.

Indirect economic mechanisms of land resources management in our republic, including methods of economic impact on strengthening the stability of land use as a basis for expanding investment in land resources, regulating the turnover of land resources, replacing land seized for various needs of the state and society hardly used. Issues of fulfillment of various restrictions remain outside the sphere of economic management.

In this case, the state or the owner does not regulate the economic side of the issue, limiting the rights of the land user. At the current stage of reforming the economy of our republic, the implementation of land reform requires the implementation of effective measures to deepen and expand the economic mechanisms for regulating land relations. These measures should be systematic and comprehensive.

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Important components of these measures should include:

- improvement of land resources management forms and methods;
- improving the interdependence of direct and indirect forms and methods of distribution of land resources, their circulation and economic influence on their use and ensuring their optimal combination;
- formation and strengthening of the organizational base for the development of economic methods of land resource management.

Reforming land relations, changing the forms and methods of regulating land resources turnover and their use, and developing market mechanisms for management and management of these resources require deep knowledge in this field from land owners, land users, and tenants of land resources.

In this regard, it is necessary to create and develop a wide-ranging institutional system of improving the skills of economic entities and individuals on land use issues, to educate them on the formation of land use, the distribution of land resources, their turnover and a wide range of land issues in the process of their use. and there is a need to provide convenient consulting services.

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