

ADVANTAGES OF USING INNOVATIVE TECHNOLOGIES IN GROUND MONITORING

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Abstract: The article talks about the use of modern techniques and technologies, the use of innovative technologies and their effectiveness in conducting land monitoring

Keywords: monitoring, technology, land monitoring, land information system, land resources, land registration, land control..

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Introduction: Aerospace methods are a useful tool in developing effective and sustainable strategies and methodologies for land and water resource managers. Currently, great progress is being made in this regard in every field, and we can see that modern technologies are being effectively used in land monitoring. First of all, the land will be comprehensively inspected for land monitoring. Land surveying is mainly carried out on the basis of plans on a scale of 1:10000. If there are no plans for some areas, they will be prepared anew.

Relevance of the topic: If land monitoring is carried out on the basis of modern techniques and technologies, time and work productivity will increase to a high degree. In this regard, major reforms are being carried out by several government agencies in order to ensure that the area of plots of land allocated for the management of farms is optimized.. According to the practical and theoretical results of economic optimization, we will cite the following examples.

Method 1 (traditional method). In order to determine the surface and optimal distribution of an average area of 500 hectares, 5 qualified specialists will have to work for 2-4 days with the help of a sortin or roulette. Forming the obtained results in a table, drawing up a document, approval from the members of the commission with the participation of representatives, updating the territory plan and finalizing the results of the account book will take an additional 2-3 days, in total it will take 4-7 days to determine the area of 500 hectares. period is required.

It is natural that additional funds are required for accommodation, auto equipment, fuel, daily necessities and other expenses for 5 specialists for a period of 4-7 days.

Method 2 (modern method). With the help of a modern method, the surface determination and optimal distribution of an area of 500 (ha) hectares is carried out with the help of 2 qualified specialists with a GPS device within a period of 2-4 days. 2-3 additional days are required to form the results obtained in the field in a table, draw up a document, approve the commission members with the participation of representatives, update the territory plan and finalize the results of the account book, and in general, 4-7 days are required to determine the territory area of 500 hectares. will be done. Additional funds are required for accommodation for 2 specialists for 4-7 days, vehicles, fuel, daily necessities and other expenses.. It is recommended to use GPS ProMark-3 and Stonex-S3 receivers on a large scale in the ongoing survey work for the optimization of agricultural land using modern methods..

Instead of measuring small contours one by one or scanning the entire area with the receiver during the shooting process, we recommend the following improved optimal solution. If a separate time is allocated to measure the area of each contour with the help of a modern GPS receiver, it is necessary to cover a distance of 438 meters in the total area. It takes at least 20 minutes.

The total distance is 304 meters and it takes 12-14 minutes.

Summary Instead, it can be seen from the above analysis that the use of modern techniques and technologies in conducting land monitoring has high economic efficiency. At the same time, modern technologies have advantages, and we tried to highlight them based on SWOT analysis.

1.1-jadval

SWOT analysis

<p>Strengths</p> <ul style="list-style-type: none"> - labor productivity; - time efficiency; - high level of quality; - automatic data processing; - general control over the land area; - land surveying; - high level of accuracy; - requires less labor. 	<p>Weaknesses</p> <ul style="list-style-type: none"> - requires a lot of money; - lack of personnel with high knowledge of modern technologies; - one of the modern technologies takes more time than specified for obtaining a permit for the use of drones; - drones cannot be used to survey large areas.
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<p>Opportunities</p> <ul style="list-style-type: none"> - the ability to create an electronic card; - possibility of analysis while watching on the screen; - able to create conditional symbols; - possibility to create a database; - ability to read graphic images; - possibility to edit e-cards. 	<p>Risks</p> <ul style="list-style-type: none"> - in cases of non-observance of safety rules, it can be dangerous for human life; - reduction of accuracy level of some modern technologies in windy, snowy and adverse weather conditions.
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