

## **Issues of the Organization of the Proper use of Agricultural Lands**

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### **Abstract**

This article discusses the role of agricultural land in Uzbekistan, issues of its use, continuous monitoring of agricultural land, accurate land accounting and showed changes in agricultural land over the years.

The territory of our country has rich natural landscapes, surface resources and great potential resources. The total area of the land fund of the Republic of Uzbekistan is 44.9 mln. per hectare. Currently, 9.7% (4315.7 thousand hectares) of the land fund is engaged in irrigated agriculture, about 2% (756.3 thousand hectares) of foothills, 47% (21128 thousand hectares) of steppe and semi-steppe pastures, 8 About% (3434 thousand hectares) are forests. In our country, the creation of a single system that ensures the efficient and targeted use of land resources, regulation of land relations, organization of land management and land monitoring, maintenance and increase of soil fertility, as well as the allocation and redistribution of land, especially in agriculture Ensuring economic development and transparency is one of the most important tasks, and it plays an important role in ensuring the sustainability and competitiveness of guaranteed products. The establishment of a roadmap to increase crop yields in agriculture will serve to address current issues in agriculture.

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Since land is an important component of the environment, characterized by its latitude, relief, climate, soil layer, vegetation, groundwater, water, it is the main means of agricultural production, as well as the latitudinal basis of the location of all sectors of the economy. requires.

This, in turn, highlights the need for systematic and comprehensive monitoring of land.

**Keywords:** *Agricultural lands, land monitoring, land account, farming, land fund, land types, land information system, land grading, land valuation.*

## **Introduction**

Land is importance in the modern economy. This is especially important in areas where land resources play a key role in the process of production. There are many problems in the organization and rational use of land resources that have arisen over a period of time. Research conducted in recent years has shown that the condition of the lands of our republic is not satisfactory. Therefore, in order to determine the condition of lands, control and prevent negative consequences, issues such as continuous monitoring of agricultural lands, organization of their efficient use and accurate accounting of agricultural lands and accurate determination of the normative value of arable lands are being improved.

## **Agricultural Lands**

Lands given for agricultural needs or intended for this purpose. Agricultural lands consist of irrigated, conditionally irrigated and non-irrigated (rainfed) lands and are divided into arable lands, perennial forests, lands out of agricultural use, hayfields and pastures.

**Monitoring of agricultural lands** – system for timely detection, assessment, prevention and mitigation of changes in the amount and condition of agricultural land.

**Land accounting** - is a comprehensive measure for obtaining, processing, systematizing and storing complete data on the quantity and quality of land. Quantitative calculation of lands includes information on their distribution to certain administrative-territorial units, land categories, land users and land types.

**Normative value of agricultural lands** - the value of agricultural arable land determined using normative indicators.

Due to the slow introduction of modern technologies, accurate accounting and systematic management of land resources, over the past two years in the country have taken a number of measures to organize the rational and efficient use of land, regulation of land relations, strengthening state control over land use.

Indeed, in the framework of the Concept "Efficient use of land and water resources in agriculture" in 2020-2030, 298563.0 hectares due to the use of irrigated lands, 155057.0 hectares due to the use of groundwater sources, 50000.0 hectares due to the use of other water sources, 72472.0 hectares due to the commissioning of forest lands, 535632.0 hectares due to the placement of water-resistant crops on dry lands, pastures and other lands, a total of 1111723.0 hectares to increase the efficiency of agricultural land use, first of all, and the need to maintain a fair account.<sup>5</sup>

The changes in the types of agricultural land in the country in 2015-2020 can be seen in Table 1 below.<sup>6</sup>

(on thousand)

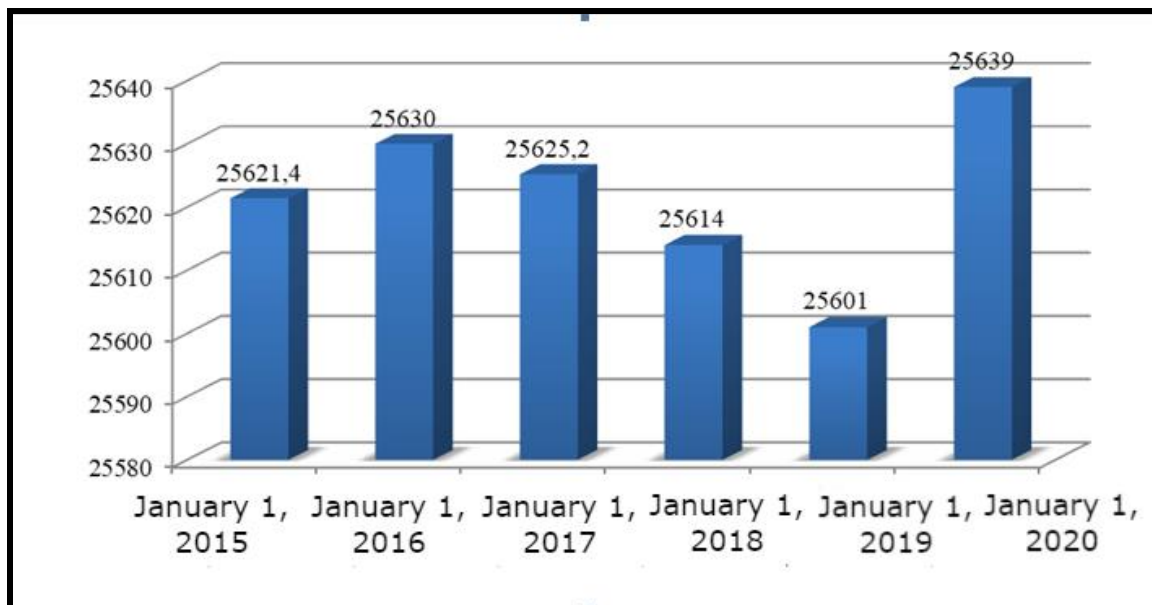


Figure 1. Changes in agricultural land types in the country from January 1, 2015 to January 1, 2020.

The monitoring shows that the irrigated lands of intensive use in agriculture of the Republic are 4312.4 thousand hectares or 9.6% of the total land area. Irrigated arable lands are the golden fund of our state, and all scientific, technical, economic and organizational opportunities are aimed at improving the condition and increasing the productivity of these lands.

<sup>5</sup> A. Babajonov, K. Khojiyev, R. Sharopov. Earth accounting system more problems of improvement. // "Agro Ilm" journal. №2. - Tashkent, 2020. P. 112-113

<sup>6</sup> National report. –Tashkent, 2020. P. 25-26.

As a result of monitoring, in 1 million 118 thousand 282 hectares, or 11,153 hectares more than planned were planted with grain in the country:

- In 165 farms, 2,397 hectares of planned grain were not planted at all;
- In 820 farms, 4387 hectares were planted less than planned;
- In excess of the plan and unplanned sowing of grain on the area of 17 586 hectares in 6674 farms, including:
  - 6312 farms planted more grain than planned on 14554 hectares;
  - It was found that 3032 hectares of unplanned grain crops were planted on 362 farms.

In addition, the monitoring of grain fields planted on dry lands for the 2018 harvest revealed that 6,124 farms planted less grain on 177,948 hectares or 18,832 hectares less than planned.

Presentations to the Chairman of the Council of Ministers of the Republic of Karakalpakstan and governors of the regions, information to law enforcement agencies were requested to eliminate the identified cases and take appropriate measures.

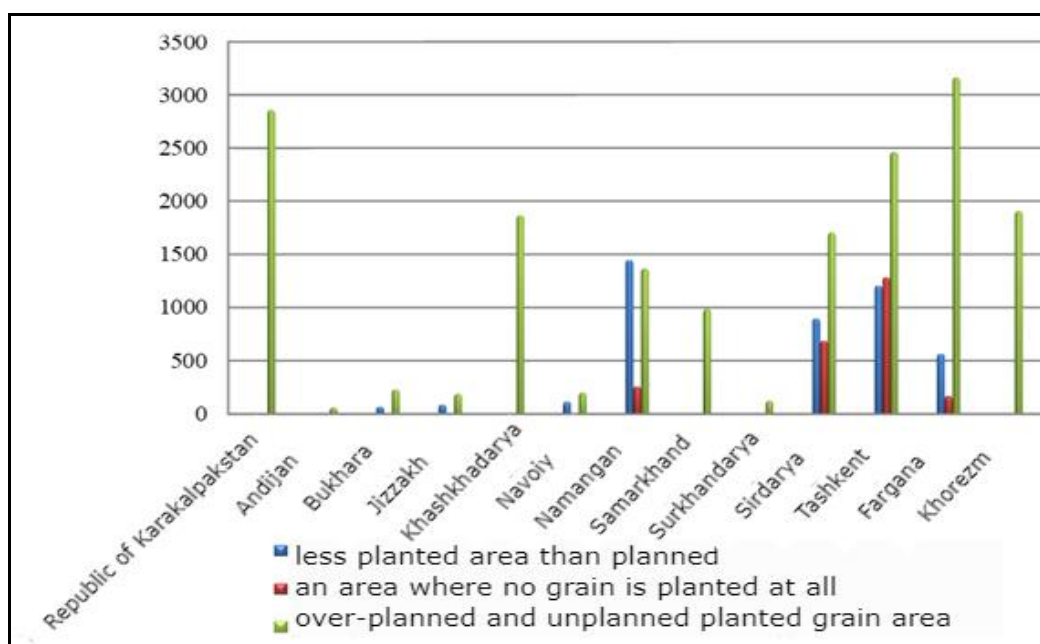


Figure 2. Deficiencies in the planting of cereals on irrigated areas for the 2018 harvest.

The Decree of the President of the Republic of Uzbekistan dated September 7, 2020 #6061 "On measures to radically improve the system of land accounting and state cadastre" is aimed

at eliminating the above shortcomings and will be maintained hat from January 1, 2021, the land information system on the online portal.

Currently, a geoportal (land information system) is being introduced in Uzbekistan to provide interactive services to the population. The system provides not only for the collection and analysis of data, maintaining a single system of state cadastres, but also the provision of interactive services to the population. Based on the table below, we can get acquainted with the capabilities of the online geoportal.

Table 1

	<b>Before the introduction of the land information system</b>	<b>On the land information system</b>
1.	Land accounting is carried out once a year (as of January 1 of each year).	Land accounting is conducted and maintained online
2.	Contour number is not unified (contour number is repeated several times in one district: 1,2,3..1,2,3..1,2,3)	The contours are assigned a single unification number (UUK), (17: 04: 1001, 17: 02: 1001)
3.	The chronology of changes in the land (transfer of land from one types to another, change of land user) is not reflected	A database is created by forming a chronology of all changes on land
4.	There is no interactive service system in the field of land management	Land users will be provided with interactive services (field leveling, water orientation, geobotanical research, normative land valuation, location of agricultural crops)
5.	There is no list and database of measures to be taken for land offenses	An online "Land Control" system for detected land violations will be created. It will be integrated with the responsible agencies

85 % of the country's territory is desert and semi-desert. An average annual diet requires 113 kilograms of vegetables, 50.4 kilograms of potatoes, 19.3 kilograms of melons, 21.3 kilograms of fruits and grapes, 40 kilograms of meat, 140 liters of milk, 121 eggs.

It would be expedient to regulate the use of agricultural lands of the republic. Of particular importance is the distribution of land used for agricultural purposes by type of economic use.

Table 2.

Distribution of lands used for agricultural purposes by types of economic use

#	Types of farm use	Square	
		a thousand hectares	%
1.	Clusters and farms	19557,2	94,2
2.	Other agricultural enterprises and organizations	1034,2	4,98
3.	Agricultural research institutions	80,7	0,39
4.	Auxiliary agricultural enterprises	86,9	0,42
5.	Privatized livestock farms and LLCs	<b>2,6</b>	<b>0,01</b>
<b>Total</b>		<b>20761,6</b>	<b>100</b>
<b>Including lands of rented farms</b>		<b>7331,0</b>	<b>35,31</b>

There are shortcomings in the distribution, improper location of infrastructure facilities in the area, inadequate distribution of land to these facilities, inefficient use of land by land users under the influence of water scarcity and arbitrary occupation. As a result, to date, 298,000 hectares of irrigated land have been withdrawn from agricultural use.

As of January 1, 2020, the total land area within the administrative-territorial boundaries of the Republic of Uzbekistan is 44892.4 thousand hectares, of which irrigated land is 3694.8 thousand hectares, 8.2% of the total land area.

According to the analysis, the area of irrigated agricultural land has decreased by 17.3 thousand hectares over the past five years. The main reason for this, as noted above, is the result of inefficient use of land by land users, as well as cases of arbitrary occupation. The great amount of agricultural production is grown on these irrigated lands. We need to deal with the factors that cause the problem, not the consequences of the problem, and look for ways to overcome it.

There are more than 100 users of agricultural lands in the country. The most important factor is to change the attitudes of agricultural land users and landowners towards land. It is advisable to do this work based on current real life.

- Some reduction of state interference in land relations;
- Introduction of market mechanisms in land relations;

- Organization of the state order in the cultivation of agricultural products in accordance with market relations;
- Organization of land use on the basis of rent relations.

At the same time, in the current global crisis, pandemic, agriculture is the most promising sector in the country in terms of employment and income, maintaining economic stability. This is the most sensible way to make extensive use of land resources and opportunities.

First of all, it is expedient for us to study separately the methods of using land valuation data in the organization of the activities of agricultural enterprises. That is, the most important factor is that agricultural enterprises know the methods of land valuation when using their land. Today, the area of agricultural lands of the republic is 16025.6 thousand hectares. As important as the need and relevance of land valuation is in the activities of agricultural enterprises, it is just as important to use its indicators in accordance with the current period.

The first land assessment was carried out in 1969 on the basis of the "Guidelines for soil assessment and economic assessment of irrigated lands of collective and state farms of the Republic of Uzbekistan" (A.Z. Genusov, B.V. Gorbunov and others).

At the end of the soil assessment works in accordance with the guidelines developed above, the quality and quantity of land were determined. In determining these indicators, the salinity, erosion, gypsum, culture, and similar properties of the soil were taken into account. Land quality score was calculated on a 100-point scale.

As a result of the land grading, the quality score of the land is formed. Through this, crop yields are planned. At the same time, this score is determined on the basis of quality, ie the normative yield of crops as a result of natural soil fertility.

This is currently being done in accordance with Annex 2 to the Resolution, approved by the Cabinet of Ministers of August 18, 2014 #235 "On improving the system of determining the normative value of agricultural land".



Table 3.

Normative productivity of soils of main agricultural crops, orchards and vineyards calculated per unit quality

<b>Agricultural crops and perennial plantation</b>	<b>Normative productivity of soil relative to one bonitet score, c/ha</b>
On irrigated lands	
Cotton	0,4
Cereal crops	0,6
Tobacco	0,45
Rice	0,7
Annual grasses (green fodder)	3,0
Vegetables	3,0
Melon products	2,7
Alfalfa from previous years	2,0
Corn for grain	0,75
Forage root crops	9,0
Potatoes	2,0
Gardens (average)	0,6
Vineyards (average)	0,8
In rainfed lands	
Autumn wheat	0,25
Autumn barley	0,20
Spring peas	0,12

The crop yield shown in this Table 3 is the normative yield calculated as a result of the natural fertility of the land.

The average bonitet score of agricultural lands of the Republic of Uzbekistan is currently 55 points.

As a result, the total yield per hectare is 33 centner, with a yield of 1 point per 1 hectare of land.

For example, in irrigated lands planted with cereals, the yield of 33 quintals of wheat per 1 hectare of land with a natural fertility of 55 points, according to Table 3 above, and other crops are planned in the same order.

It is advisable to pay attention to one aspect. The landowner has to spend extra money on the land (application of chemical and mineral fertilizers to the soil, clearing of collector drains

and soils from stones, implementation of measures to increase soil fertility) the lack of clear procedures for achieving additional productivity through shows how it is urgent problem.

Of course, high productivity can be achieved through natural fertility and additional investments from the lands of our republic. But it is expedient that each process be carried out in accordance with the requirements of the present period.

### **Conclusion**

The introduction of market mechanisms in land relations, the rational placement of agricultural crops and the application of rent relations in determining crop yields is one of the key factors in the introduction of market mechanisms in agriculture.

Failure to set productivity in accordance with normative documents and established norms reduces the economic performance of many agricultural enterprises, as a result of which they face a crisis. As a result, there is an optimization of agricultural enterprises.

Today, we are conducting research on the efficient use of agricultural land, non-illegal occupation, changing the attitude of landowners to land and achieving economic stability of agricultural enterprises.

If every landowner has a sufficient economic interest in their land, the outflow of land from agricultural turnover and the illegal occupation of land will also be significantly reduced.

In conclusion, it should be noted that the widespread use of market mechanisms in any land relations brings great benefits to the economy. As a result, state intervention in land relations is reduced and only strong land control is formed.

### **References**

Avezbayev, S.A. (2008). *Automated land use design systems*. T: "TIAME", 136.

Avezbayev, S.A., & Volkov, S.N. (2004). *Land use design*. Tashkent. "Yangi asr avlodi", 783.

- Bobojonov, A.R., Rakhmonov K.R., & Gofyrov, A.J. (2008). *Land cadastre*. T: “TIIAME”, 202.
- Yarmatova, D.S., Bobojonov, A.R., & Rakhimov, A.R. (2014). *Basics of state cadastre*. T: “Chulpon”, 240.
- Rakhmonov, K.R. (2008). *Basics of land monitoring. Study guide*. Tashkent.
- Nishonboyev, N. (2005). *Analysis of cadastral practices in foreign countries and their recommendations 2005*.
- Rakhmonov, K.R., & Bobojonov, A.R. (2007). *State cadastres* T.
- Raklov, V.P., Yu, S.E., & Abdurakhimov, Kh.A. (2007). *Geographic information systems*. T: “Fan”, 140.
- Yu, S.E. (2010). *Geographic information systems*. T: “Universitet”.
- Yu, S.E., Musayev, I.M., & Abdurakhmonov Kh.A. (2012). *Geographic information systems*. T: “Noshir nashriyoti.
- Varlamov, A.A. (2003). *Management of land resources*. Study guide. Moscow.
- Varlamov, A.A. (2007). Foreign land cadastral systems. A.A. Varlamov, *Property relations in the Russian Federation*, 7, 60-68.
- Dyachenko, N.V. The use of GIS technologies in solving management problems. <http://www.nocnit.ru/2st/materials/Diachenko.html>
- Nikolayeva, T.V. (2016) 3d cadastre. <http://cyberleninka.ru/article/n/kadastr-v-formate-3d> (27.10.2016).
- Pavlova, V.A. (2016). Innovative technologies in cadastral registration of real estate objects. V.A. Pavlova, Ye.L. Uvarova. *Land management, cadastre and monitoring*, 8, 57-64.
- Sizov, A.P. (2016). *Land management and cadastres*. Moscow.
- ISO 19110. Geographic information — Methodology for feature cataloguing.
- ISO 19115-2. Geographic information — Metadata.
- Esri Geoportal Server THC* - Mode of access <https://www.esri-cis.ru/ru-ru/home>
- Vershinin, V.V. (2009). *Monitoring of lands: the ecological components of the Text.: textbook for University students*. V.V. Vershinin, G.E. Larin, A.O. Chomutov. M: goose, S.169.

Makhotlova, M. (2015). SH. Training manual in the discipline “land Monitoring” for students training areas 120700.62 “Land management and cadastre”, “Land management”/Makhotlova M. SH. KBGAU named after VM Kokov, Nalchik, 111.

National Report on the state of land resources of the Republic of Uzbekistan. – Tashkent. Goscomzemgeodezcadastre, 2020.

Land Fund of the Republic of Uzbekistan. Tashkent. Goscomzemgeodezcadastre, 2020.

Jabbarov, Z.A., Jobborov, B.T., Xalillayev, S.A., & Sherimbetov, V.K. (2020). Oil Contaminated Soils And Their Biological Recultivation. *European Journal of Molecular & Clinical Medicine*, 7(6), 2797-2810. [https://ejmcm.com/pdf\\_5340\\_f62e4462ecf392bdb2e89eb4237b8c35.html](https://ejmcm.com/pdf_5340_f62e4462ecf392bdb2e89eb4237b8c35.html)

Jobborov, B.T., Alikarieva, D.M., Kamalova, M.D., & Adilova, N.A. (2021). The Ecological State and the Problems of Recultivation of Man-Made Disturbed Irrigated Soils. *Annals of the Romanian Society for Cell Biology*, 25(1), 4477-4492.

Jabbarov, Z., Jobborov, B., Fakhrutdinova, M., Iskhokova, S., Abdurakhmonov, N., Zakirova, S., & Makhammadiev, S. (2021). Remediation of the Technogenic Soils. *Annals of the Romanian Society for Cell Biology*, 25(1), 4503-4510.

Makhammadiev, S., Djurakul, S., Bakhtiyor, A., Jabbarov, Z., Jobborov, B., Mirzarahmatovich, T.M., & Gulomovich, M.K. (2021). The Formation of the Nutrient Medium in the Soil is Influenced by Varieties and Fertilizer and Its Impact on Grain Yield of Winter Wheat. *Annals of the Romanian Society for Cell Biology*, 25(4), 5218-5230.

<http://www.gov.uz>

<http://www.stat.uz>

<http://www.lex.uz>

<http://www.ziyonet.uz>

<http://www.ygk.uz>

<http://www.agro.uz>

<http://www.dissercat.com>

<http://www.GIS.ru>