



LAND RESOURCES AND EFFICIENCY OF THEIR USE IN AGRICULTURE

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Abstract:

The article, the effective use of land resources in agriculture on a scientific, economic and geographical basis, studies the general situation of the use of land resources in Uzbekistan, including identifying ways to solve existing problems in the use of land resources. In regional agriculture and specific ways to eliminate them, practical recommendations and proposals have been developed.

Keywords: optimization, resources, erosion, collector-drainage regime, salinization, economic and geographical aspect, land resources, microorganisms.

INTRODUCTION. Land resources are the most important tool in the social and economic development of any country. Because the demand of countries for land resources increases, it requires their rational use. For this reason, today, special attention is paid to the creation of economic mechanisms for the protection of land resources and their effective use. For example, the sustainable development of agriculture is closely related to the state of use of land resources. Agriculture is the main branch of the economy that provides the population with food and clothing.

The well-thought-out policy of optimization of arable land and zoning of agricultural crops in our republic has made it possible to increase the production of other agricultural products several times, while maintaining the relatively stable volume of the production of cotton, the most important raw material and exportable product.

Improving land reclamation remains one of the main problems today. Today, about 8 percent of the irrigated lands are in bad meliorative condition, which is primarily due to the high level of soil salinity and the rise of underground water. About 330,000 hectares of land are unsuitable for agriculture due to the unsatisfactory state of land reclamation. Land quality, a general indicator of the quality of irrigated land, has fallen to 55 points in recent years. Especially the situation remains complicated in the Republic of Karakalpakstan and Khorezm, Bukhara and Syrdarya, Fergana and Tashkent and a number of other regions. Today, effective use of land resources and their

protection has become one of the most urgent problems facing the government of our republic. Under such conditions, the economic-geographical study of the issues of effective use of land resources in existing agriculture represents the relevance of the topic.

LEVEL OF STUDY OF THE PROBLEM. Optimizing the use of land resources, improving their use on a scientific basis is one of the important issues. This led to the need to improve the use of land resources, to scientifically study their protection. In this regard, especially the issues of agricultural development are widely covered in the researches of A.A.Rafikov, K.N.Abirqulov, A.N.Khojimatov, T.J.Jumaev, N.R.Rajabov, O.Abdullaev, Q.Choriev, N.Sotivoldiev, A.Baratov, K.Sirozhdinov and others. Nevertheless, the issue of land resource use, which occupies a significant, even a leading position in the economy of local farms, requires more in-depth research. The solution of these aspects of the problem, in turn, the rational use of land resources allows to study the problems, to determine their solutions and to develop specific recommendations.

Land resources are the main production means of agriculture. The quality and quantity of products grown in agriculture largely depends on the state of land resources. The land is a priceless wealth of man, together with the world of plants, the land provides food, clothing, building materials and medical supplies to man.[2] The importance of land in society is immeasurable. Buildings will be built for citizens to live



in it. Various products are grown. So, the importance of land in agricultural production is huge. Because it is the main means of production of this industry. As a result of planting seeds and seedlings on the ground, various products are grown. Therefore, all types of products grown in the network are obtained using land and water. English land economist William Petty said that "land is the mother of wealth, water is the father." Agriculture of the republic is based on irrigation. Therefore, water is the most necessary tool, like land. In this regard, first of all, special attention should be paid to increasing the productivity of the land. It should be said that despite the fact that the scope of work in this direction is expanding year by year, the current state of reclamation of irrigated lands is a cause of great concern. Therefore, protecting the motherland is a sacred duty of everyone. The arid area of the globe (including glaciers) is 15 billion ha, of which the area of glaciers is 1.7 billion, the area of pastures is 3 billion, the area of plowed land is 1.5 billion, and nearly 400 million is occupied by irrigated agriculture. . But land resources go out of circulation for various reasons (about 15 million ha every year), for example, about 8 million ha for the construction of industrial facilities and cities, 3 million ha as a result of erosion, 2 million ha as a result of human poisoning. ha of land, and due to flooding and salinity, about 2 million ha of land is out of production. During the entire period of civilization, humanity has been separated from a total of approximately 2.5-3 billion hectares of land due to various reasons (erosion, salinization, under cities, construction of roads, water reservoirs, etc.).[5]

The most fertile part of the Earth's crust is the soil, which was formed as a result of physical, chemical and biological processes connected with each other in the lithosphere, hydrosphere, atmosphere and biosphere for a long time. The role of living organisms, especially microorganisms, in the creation of soil fertility

is great, and as a result of their life activity and death, they enrich the soil with a certain amount of organic matter. In this way, the fertile part of the soil is formed in the upper layers. Man gets everything he needs for his life from the soil, not counting the resources of the ocean and the sea. Currently, 10.8% of the earth's land surface is arable land. Only 14% of the world's cultivated land is irrigated; the harvest from these irrigated lands now provides food for 50 percent of the world's population. It seems that our planet still has a lot of arable and irrigable land resources.

The world's land resources are 13,393 million, of which 4,041 million (30.1%) are covered by forests, 2,987 million (22.3%) are meadows and pastures, and 1,457 million (10.8%) are arable. and arable lands, the remaining 4908 million (36.8%) correspond to sandy deserts, glaciers and snowfields, villages and cities, lands occupied by industrial facilities. Changes in the natural state of the soil layer of our planet are caused by activities related to agricultural activities - application of mineral fertilizers to the soil, washing of soil salt; land leveling) etc. have a certain influence.

The area of the Republic of Uzbekistan is 448.9 thousand km². Of this, the land used for agriculture is 28,081 thousand, the area of irrigated land is more than 4.2 million ha, pastures and hayfields are 22,965,0 thousand, dry land is 765,000, the area of forests is 1.3 million, the area of unused state reserve land is 15,309.9 thousand ha will be exported. In dry climates, irrigated lands are of inestimable importance.

Obikor lands occupy 10% of the land area of the republic and supply 95% of all products grown in plant science. Effective use of each area of irrigated land is of particular importance (Table 1). It should become one of the main tasks of today to steadily increase their productivity, not to allow even one hectare of land to go out of business.

Table 1
Salinity of irrigated lands in Uzbekistan, thousand hectares ¹

Provinces	Area of irrigated land	Distribution of irrigated lands by salinity level			
		unsalted	weak	average	strong and very strong
Andijan	275,1	245,2	14,9	14,9	-

¹ The source was prepared by the author based on the information of the Ministry of Agriculture and Water Management.



Bukhoro, Navoi	271,8	15,4	160,1	62,5	33,8
Jizzah	290,6	51,7	161,1	73,3	4,1
Kashkadarya	497,4	275,1	162,3	45,9	13,7
Namangan	282,4	233,6	33,1	2,7	0,9
Samarkand	370,3	351,2	12,9	5,3	0,9
Surhondarya	326,2	196,8	75,4	50,2	3,8
Syr Darya	296,5	12,9	220,9	48,7	13,9
Tashkent	377,1	366,9	7,8	2,1	0,3
Fergana	351,6	140,8	173,1	32,0	5,7
Khorezm	270,8	-	162,3	77,5	31,0
Republic of Karakalpakstan	500,9	35,9	230,1	181,9	53,0
Republic of Uzbekistan	4220,2	1942,9	1483,9	628,0	165,6

The total land area of the Republic of Uzbekistan is 44896.9 thousand. ha, of which 44,410.3 thousand hectares or 98.9 percent are occupied by land used by various enterprises, organizations and institutions, farms and citizens. In turn, 4313.3 thousand hectares (9.7%) of these lands are irrigated lands. The land fund is divided into 8 categories depending on the purpose of its use, the most important of which is the land used for agriculture. This category of land in our country is 25258.5 thousand, which is half of the total land fund. Reserve lands (23.4%) and forest fund lands (19.5%) are in the next places in terms of quantity (Fig. 1).[4]

Total arable land in the republic is 4071.0 thousand ha. It is equal to 18.3 percent of the land used

in agriculture, of which irrigated land is 3313.1 thousand ha. Also, in our country, in particular, in Kashkadarya, Jizzakh and Samarkand regions, there are naturally irrigated or dry (spring) lands. Although they are relatively small, they are also found in Surkhondarya, Navoi and Tashkent regions. The total area of Lalmikor lands is 758 thousand hectares. Usually, in such regions, the amount of precipitation is at least 200 mm per year, and they mainly fall in the spring months [2]. Among other lands used in agriculture, pastures and hayfields stand out. Their area is 20,756 thousand ha or 82.2% of the land used for agriculture. Perennial tree plantations are 351,000 ha, gray land is 80,500 ha.

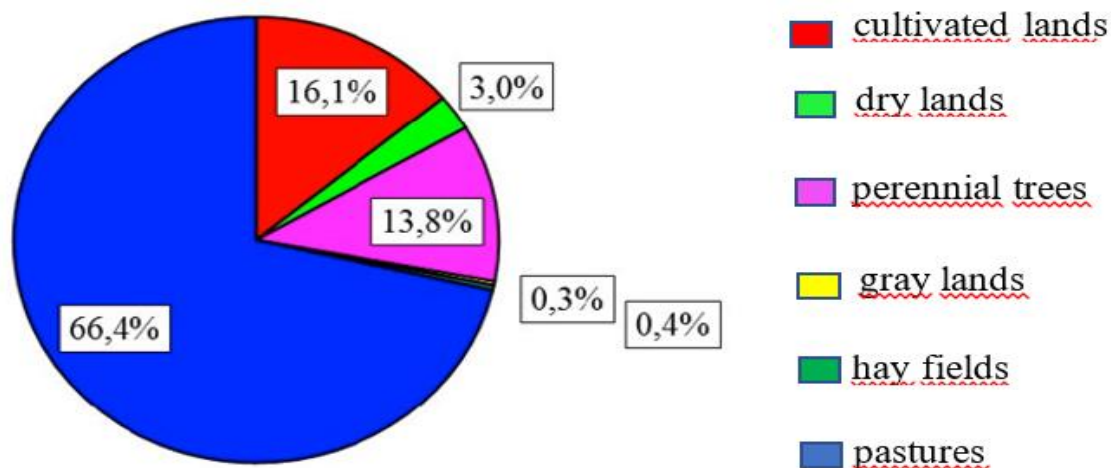


Figure 1. Types of land used in agriculture in Uzbekistan (01.01.2019).

The land area of any country is considered its important national wealth. However, in this regard, first of all, the lands used in agriculture, especially the irrigated lands in our conditions, are of great importance. In the years of independence, although the total area of agricultural land has decreased, the directly cultivated land has not changed much.

CONCLUSIONS AND SUGGESTIONS. For many years, construction, restoration and repair of collector-drainage networks have been carried out to improve the reclamation condition of irrigated lands in the regions. But how many million Even if m3 collector-drainage networks are not cleaned, moderately, strongly saline lands are still increasing.

The process of land salinization depends on many factors, but according to many experts, if the collector-zovor networks are cleaned according to the regulations, the process of land salinization will slow down. However, in the desalination of irrigated lands, the working condition of the collector-drainage plays an important role, but complex agrotechnical measures should be carried out for the desalination of irrigated lands. In this:

✓ *determination of the areas deemed necessary for saline washing according to the recommendations of reclamation expeditions in the section of farms and fields (contour);*

✓ *selection of the type of salt washing for each area where salt washing is planned (in areas with*

high salinity - checks, in medium and low salinity - using strips or egates);

✓ *plowing and smoothing of land, leveling and planing, carving, troweling, etc. are included.*

Collector-drainage systems on the irrigated land areas, timely removal of the necessary part of the pressurized groundwater, underground ground water from the irrigation areas and keeping the seepage water level at the intended depth, maintaining the balance of soil water and salt on the cultivated land at a normal level, achieving an abundant harvest of agricultural crops creates conditions for stretching.

Based on the above, it is necessary to pay attention to the following:

✓ use of effective agrotechnical methods in the use of land resources and improvement of soil condition;

✓ proper organization of the activities of qualified soil scientists;

✓ to strengthen reclamation activities on poor land in regional and district farms;

✓ strong control of the negative impact of waste on the used land in relatively urbanized areas, etc.

Considering these situations in the use of land resources is important for the further development of agriculture and the rise of the economy.



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