

Current situation and analysis of land use in rural settlements of Uzbekistan

Rashid Abdiramanov^{1*}, *Otabek Abdisamatov*², *Pulat Choriev*³, and *Parida Sultanbekova*⁴

¹TIIAME National Research University, Tashkent, 100000, Uzbekistan

²Tashkent International University of Finance and Technology, Tashkent, 100008, Uzbekistan

³Tashkent University of Architecture and Construction, Tashkent, 100069, Uzbekistan

⁴South Kazakhstan Research University named after M. Auezov, Shymkent, 160013, Kazakhstan

Abstract. This study analyzes land use in rural settlements of Uzbekistan, with a specific focus on the southern districts of the Republic of Karakalpakstan to address the objectives outlined in the Presidential Decree of the Republic of Uzbekistan dated October 7, 2017, No. PF-5199, titled “On measures to protect the rights and legal interests of farmers, peasant farms, and homestead landowners, and to fundamentally improve the system of effective use of agricultural arable land.” This analysis focused on evaluating the current state of land use in rural settlements that hold strategic importance for the republic. The study provided specific scientific and practical recommendations aimed at enhancing the efficiency of land use in the future. Additionally, the research included a detailed examination of the activities of homestead land ownership in rural settlements, offering insights into their current functioning and areas for improvement, and it was shown that there are a number of problems that do not allow to achieve economic efficiency.

1 Introduction

Further deepening of the market economy in our country requires a radical increase in the efficiency of using all available resources, in particular, land resources. The management and utilization of settlement lands, as a key element of the country's unified land use system, carry substantial socio-economic significance. Optimizing the productivity of farmland in rural areas is essential for strengthening food security, addressing rural unemployment, and reducing poverty levels. These efforts contribute directly to supplying agricultural products to meet the needs of the population and improving the livelihoods of communities in rural regions [1]. As a result of the successful implementation of the land reform, the activities of individual economic entities such as homesteads, as well as various agricultural organizations, farms, auxiliary agricultural enterprises, are developing rapidly [2]. According to the information provided by the Republican Council of Farmers, Peasants and Homesteads, as of January 1, 2021, there are 4584422 homesteads operating in rural settlements of the country [3]. Despite the steady increase in the number of agricultural entities, the efficiency

* Corresponding author: r.abdiramanov1011@gmail.com

in utilizing land and other resources remains insufficient, and the volume of agricultural production fails to meet the growing demand [4].

It is important to know their characteristics before assessing the importance of the lands of rural settlements in the economic sectors, the current state of their use. According to P.K. Tatur, I.N. Davidovich, T.I. Ismailov's definition, residential areas are places where people work in some enterprises, institutions and organizations and live there permanently or temporarily [5].

The government and leadership of Uzbekistan have implemented numerous initiatives to enhance the efficiency of land use by households in rural settlements [6]. Key among these is the Presidential Decree No. PF-4947, issued on February 7, 2017, titled "On the Strategy of Actions for the Further Development of the Republic of Uzbekistan." Additional decrees, such as No. PF-5199 from October 7, 2017, focused on "Protecting the Rights and Legal Interests of Farmers, Farms, and Homestead Landowners and Fundamentally Improving the System of Effective Use of Agricultural Arable Land," and No. PQ-3318, dated October 10, 2017, which aimed at "Further Developing the Activities of Farmers, Peasant Farms, and Landowners," have also been adopted. Furthermore, Resolution No. 119 of the Cabinet of Ministers, issued on March 4, 2017, introduced measures for the effective use of farmland and household plots, as well as the development of water-resistant, export-oriented tree plantations. Collectively, these measures reaffirm the critical role of an improved land use system in supporting farmers and landowners in rural areas to enhance agricultural production [7-8]. Therefore, an in-depth study of the activities of homestead land ownership in rural settlements in the southern districts of the Republic of Karakalpakstan showed that, in addition to the above situations, there are the following problems that do not allow to achieve economic efficiency [9]. (Problems were identified by conducting a survey among 426 families in "Ullibog" and "Toza Bogyop" settlements in "Namuna" massif, Tortkol district, Figure 1).

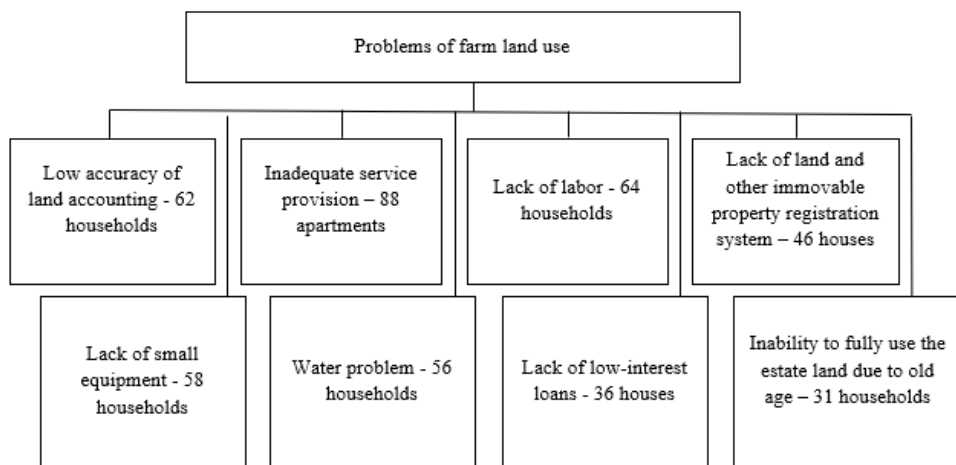


Fig. 1. Problems in the use of farm lands.

The conducted research showed that 14.55% of the analyzed peasant and homestead land holdings lacked mineral fertilizers, 13.62% lacked small land plowing and working mechanisms, 13.62% lacked service. In 13.15%, there is a problem of timely irrigation of homestead land, in 13.15% there is a lack of labor force, in 8.45% there is no possibility of obtaining small amount of loans, in 7.28% there is a limited possibility of adequate use of homestead land due to old age.

2 Materials and methods

Understanding and evaluating the current state of land use in rural settlements, particularly those critical to the republic, is of significant importance. Analyzing these settlements and developing targeted scientific and practical recommendations to enhance the efficiency of land use is essential for addressing present and future challenges. This issue is especially pressing for rural settlements in the southern districts of the Republic of Karakalpakstan, including Beruniy, Ellikkala, and Tortkol, which are located in the Aral region and face unique land use challenges.

Analyzing the current state of land use in rural settlements is closely tied to examining the utilization of homestead lands within these areas. Homestead land use serves as a fundamental component of both the land management of rural settlements and the broader land use system of the country. Assessing the land areas of permanent rural settlements is feasible through a detailed evaluation of their current land use practices.

3 Results and discussion

Official data reveals that in 1991, there were 3,339,120 homesteads in the country, collectively occupying 525.9 thousand hectares of land. Over the past 33 years (1991-2024), the total area allocated to homesteads has grown by 171.4 thousand hectares, reaching 697.3 thousand hectares as of January 1, 2024. During the same period, the number of rural families increased to 4,596,415 (Table 1).

Table 1. Dynamics of changes in rural homestead land in the Republic of Uzbekistan during 1991-2024.

Years	Number of families		Total land area (thousand ha)		Arable land (thousand ha)		Orchards and other trees per thousand ha	A thousand hectares of land occupied by construction	The average size of the farm, ha
	total	in the field	total	including in the field	total	including in the field			
1991	3339105		398.4		361.4		77.0	87.5	0.119
1995	3807765		589.1		400.7		86.5	101.9	0.155
2000	4169895		649.2		427.4		88.4	133.4	0.156
2005	4357104	824 277	679.7	94.9	451.5	94.9	91.2	137.0	0.160
2010	4532136	564 978	691.4	74.0	452.4	74.0	96.9	142.1	0.153
2015	4597794	564 684	694.0	73.4	452.8	73.4	97.5	143.7	0.151
2024	4596415	564 474	697.3	73.8	453.7	73.8	97.9	145.7	0.152

Table 1 shows that the average size of the farm is 0.15 hectares. The composition of the farm is shown in Figure 2 below. According to it, 65.07% of the estate land is arable land (453.7 thousand ha), including 60.65% irrigated arable land (422.9 thousand ha), 14.3% is perennial tree plantations (97.9 thousand ha), including 13.43% irrigated land, 20.9% land under construction (145.7 thousand ha) and 1.4% other land.

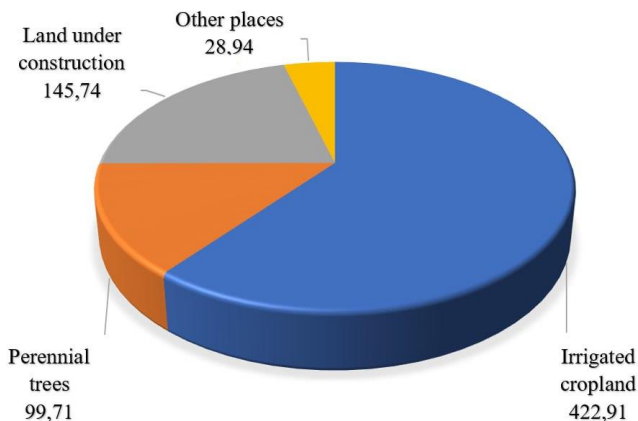


Fig. 2. Total composition of farm lands.

In the southern districts of the Republic of Karakalpakstan, the general composition of farm land areas and the dynamics of change during this period can be seen in the table below (Table 2).

Table 2. Changes in the land areas of the southern districts of the Republic of Karakalpakstan during 1991-2024.

Years	Number of families	Total land area, ha	Arable land, ha	Orchards and other trees	Land under construction, thousand ha	Average area of farm land, ha
1991	33724	7082.0	4603.0	1416.0	1032.0	0.21
1995	39137	8610.0	5596.0	1721.0	1260.0	0.22
2000	42064	8834.0	5742.0	1802.0	1266.0	0.21
2005	45170	9486.0	6166.0	1832.0	1442.0	0.22
2010	48720	11205.0	7283.0	2016.0	1864.0	0.21
2015	51284	11282.0	7446.0	2084.0	1712.0	0.22
2024	55844	12625.0	8206.0	2214.0	2124.0	0.23

From the data in Table 2, it can be seen that in the next 33 years, the amounts of land areas of rural settlements in the southern districts have changed significantly. This can also be seen from the graph created (Figure 3) based on the data in this table.

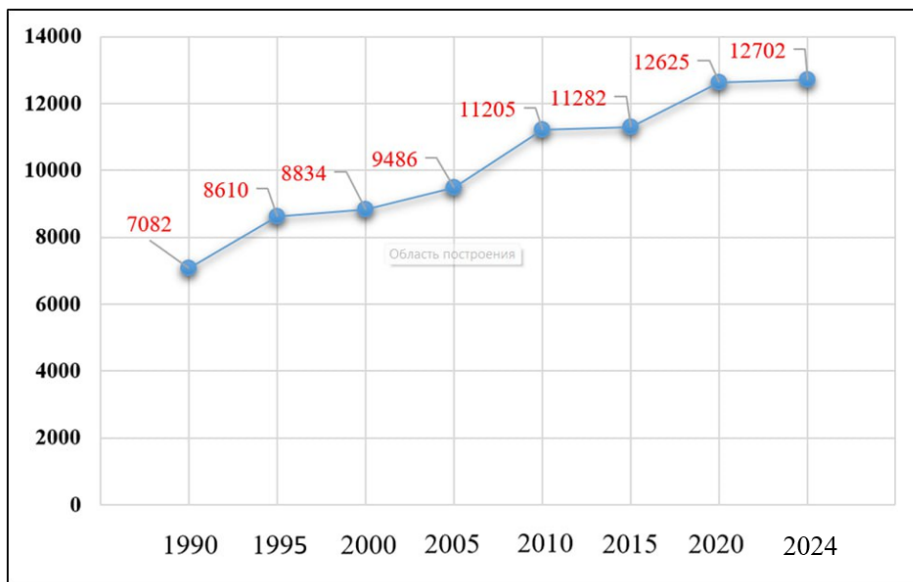


Fig. 3. Dynamics of changes in farm land areas by years.

It should be noted that the study of the land area occupied by existing settlements in the districts shows that almost 61.0% of these settlements are irrigated arable land, 18.0-19.0% are perennial tree plantations, 18.0-19 0.0% is land under construction and 1.0-2.0% is other land.

In the process of describing the current state of land use in rural settlements, along with the above, the main indicators showed some differences in individual districts. For example, in the villages of Beruni district, the area of perennial trees is slightly larger than in the villages of Ellikkala and Tortkol districts, and the weight of other lands is higher in the villages of Ellikkala district (Table 3).

Table 3. Main characteristics of rural settlements of the Republic of Karakalpakstan (2024)..

Indicators on rural settlements	Unit	Beruniy	Ellikkala	Turtkul
Total land area of rural settlements	ha	3219.0	4166.0	5230.0
The land area of farms and farms	ha	2509.0	3175.0	4319.0
Number of families in villages	family	16907	20246	19491
Number of rural settlements in districts	piece	59	63	72
Average homestead or farm land area per family	to	0.17	0.17	0.21
Percentage of arable land in the homestead:		39	43.6	41.8
percentage of perennial trees	%	21	18.6	16.4
percentage of buildings and structures	%	16	21.0	22.4
other lands	%	2.0	4.0	3.0

In fact, the data shows that (Table 3) the amount of land plots of rural families in Beruni and Ellikkala districts is on average 0.16 hectares, while in Tortkol district this indicator is even higher, it is 0.22 hectares. This indicator alone shows that it is much higher than other districts of the Republic of Uzbekistan. Having such a large area of irrigated farm land, in

turn, indicates that there are great opportunities for growing agricultural products on the farm land in the rural settlements of these districts.

When describing the land use of rural settlements in the southern districts, it is especially important that their area was increased by the Decree of the President of the Republic of Uzbekistan in 1991, as a result of which the standard of living of the villagers was increased. According to this Decree, 460.0 hectares of additional land was allocated to rural families of Beruni district, 446.0 hectares to rural families of Ellikkala district, and 514.0 hectares to rural families of Tortkol district in 1991-1994. delivered. As a result, even today, rural families in these districts have relatively large plots of land.

The conducted analyzes showed that there are a number of shortcomings in the order of land use. Especially until today, the state registration of the rights to these plots of land and various other immovable properties located on them has not been properly started yet. The cadastral documents of many households are very old, they were prepared in the 90s of the last century and even earlier, and even the additional real estate lands that were given were not registered in some households. With a special document recording the results of registration in the Tortkol district branch of the Chamber of State Cadastres, the study of data on a group of villages in the population of some neighborhoods in the district revealed that land plots have not yet been registered according to the accepted procedure, especially the rights to additional granted or, in some cases, newly allocated estates, showed that the rights to other immovable properties in them were not registered in the prescribed manner. In addition, the cadastral documents of some households are old (mainly compiled before 2000). In general, the results of these case studies are presented in Table 4 below.

Table 4. Today's state of registration of farm lands and immovable properties in the studied rural settlements of Tortkol district of the Republic of Karakalpakstan.

Name of villages	Farm land area, ha	Number of apartments	Registered on demand		Not registered	
			Farm land area, ha	Number of apartments	Farm land area, ha	Number of apartments
Istiqlo	13,78	259	9,82	226	3,96	33
Jayhun	35,36	372	30,72	339	4,64	33
Navruz	30,87	466	28,32	442	2,55	24
Dustlik	81,09	1153	72,42	1072	8,67	81
Yoshlik	61,12	654	54,82	602	6,30	52
Total					26,12	223

From the data in Table 4, it can be seen that in the 5 studied villages of Tortkol district, the real estates and real estates in certain areas are not fully registered. In particular, the area of such farm lands in the village of "Istiqal" is 3.96 hectares, in the village of "Jayhun" 4.64 hectares, in the village of "Navroz" 2.55 hectares, in the village "Dostlik" 8.67 hectares, in the village "Yoshlik" is 6.30 hectares, the total of these 5 studied villages is 26.12 hectares.

4 Conclusions

Undoubtedly, this situation had a negative impact on the system of taxation of estates and immovable properties on it. Such situations can be observed in other villages of southern districts. Of course, the presence of such cases has a negative impact on the efficiency of the use of the estate land, as well as on the legal status of the use of these land areas. In addition, such a situation affects the correct management of the geoportals, which is the only database of land plots in the republic.

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