

# Cardinal changes in the land fund management system during the period of updated Uzbekistan

U Nigmatjanov<sup>1\*</sup>

<sup>1</sup>“Tashkent Institute of Irrigation and Agricultural Mechanization Engineers” National Research University, Kory Niyoziy str., 39, 100000, Tashkent, Uzbekistan

**Abstract.** The main content of the decree and resolutions of the President and Cabinet of Ministers of the country is disclosed in an accessible form, for understanding by specialists and employees of all levels, the process of improving the management system of land use, especially the middle and lower levels, as well as students, masters, teachers of the relevant profile of colleges, technical schools and universities. The materials of the article as a specific modern management experience will also be interesting for researchers in this field in many countries of the world. The acting authorized authority – the State Committee for Land Resources, Geodesy, Cartography, and State Cadaster" was disbanded. Its functions, tasks, and powers were distributed among 4 executive bodies with some additions and clarifications. In the course of a critical analysis of its activities, specific reasons for the changes in the management system were identified and evaluated.

## 1 Introduction

In 2021, Uzbekistan celebrated a significant date - the 30th anniversary of gaining political independence, having passed the difficulties, and difficulties of the beginning of the transition period to a mixed economy based on a market system.

Currently, on the basis of overcoming the shortcomings of the recent past, the results of the implementation of the Action Strategy for the five priority areas of development of the Republic of Uzbekistan in 2017-2021, developed under the leadership of President Sh. Mirziyoyev, has been summed up [1].

Its content was aimed at cardinal reforms in all areas of society's activities in the interests of every inhabitant of the country of 35 million, through continuous dialogue with them.

The essence of the fundamental changes being implemented and their results can be judged by the following phenomena that have occurred:

- to a large extent, the remnants of strongly entrenched command-centralized methods of managing the economy, especially agriculture in the interests of the state, have become a thing of the past;

---

\* Correspondence: [bekjon.90@mail.ru](mailto:bekjon.90@mail.ru)

- very attractive conditions have been intensively created for the implementation of such fundamental market mechanisms of management as:

the priority of personal motivation over the state;

providing more and more economic freedom to choose types of activities as the most effective levers stimulating the use of resource-saving and innovative technologies, increasing the efficiency of production of goods and services;

- unprecedented state financial, credit and tax support for both existing and beginners has become a very significant factor in the development of entrepreneurship, including women, unemployed youth, and the poorest families;

- openness and transparency of ongoing reforms in socio-economic and socio-political processes based on a constant dialogue with the people, strengthening the status and opportunities of the gathering of citizens of the mahalla – the most unique self-government body;

- establishment and expansion of fraternal relations with the neighboring states of Central Asia, as well as with Kazakhstan, and mutually beneficial cooperation with many countries of the world. Creating all the necessary conditions for unprecedented attraction of foreign investment, including direct investment, using the best practices of advanced countries through the participation of their experts and consultants in the development of various projects and programs.

The following important indicators prove significant profound changes in the socio-economic life of the republic.

In the period 2017-2020, the gross domestic product of the country increased 2.4 times, and per capita 3 times, the volume of industrial production increased 3.7 times, and agriculture 2.6 times.

Along with domestic investments in fixed assets, which increased by 4.8 times, foreign investments increased by 8.5 times. According to the latest data, including 2021, foreign states and companies have invested \$ 25 billion in the development of the country [2].

All these figures and facts, coupled with very significant democratic transformations in other spheres of society, restored and strengthened faith in the future of the republic. Such optimism served as a good reason for the President's proclamation of an ambitious goal - to lay the foundation for the future of the third Renaissance in the historical development of Uzbekistan. Achieving this goal will require, in our opinion, increasing the work begun on the implementation of a three-pronged task: the growth of national consciousness and culture of the entire population by an order of magnitude; improving the quality of the educational process at all levels; comprehensive development of science and scientific research.

Now, on the basis of the principle From the Action Strategy to the Development Strategy of the new Uzbekistan for the period 2022-2026 and the State Program for its implementation in the Year of Ensuring Human Interests and the Development of the Mahalla, qualitative positive changes continue in all spheres of life of the peoples of the country.

Changes in land relations were initiated with the land use management system in May 2017 with the issuance of a decree, and decree of the head of the country, which took measures to strengthen control over the protection and rational use of land and improve the activities of the State Committee for Land Resources, Geodesy, Cartography and State Cadaster (hereinafter – the State Committee) - an authorized state management body that has been functioning under this name since 2004 [3,4].

These documents provide for:

- a significant increase in staff units, especially at the district level;

- formation of the Fund for the Development of Land Relations and the State Cadaster;

- payment of substantial monthly allowances to employees of the State Committee and its divisions for continuous work experience;

- strengthening its material and technical base;
- updating the leadership of the State Committee.

The tasks of the State Committee were expanded to 11, including 6 new ones in tune with the requirements of the time. By the Resolution of the Cabinet of Ministers [5], its functions were expanded and detailed (68 instead of 31) and personal responsibility for the high-quality performance of their direct duties by specialists was increased.

Despite this, the practical activities of the State Committee over the past more than 3 years to eliminate the shortcomings that then existed in ensuring the timely registration of rights, reliable accounting of land plots and their objective assessment, as well as the implementation of new tasks put forward to it, showed the insufficiency of the measures taken within the existing management system.

A new qualitative step in the development of land relations was in 2020, marked by the release of the Presidential Decree "On measures to radically improve the system of land accounting and state cadasters" [6] and the Resolution "On measures to organize the activities of the Cadastral Agency under the State Tax Committee of the Republic of Uzbekistan". The Chamber of State Cadasters of the Cadastral Agency was created in the organizational structure of the latter [7].

In accordance with these decisions, the State Committee of the sample of 2017 was essentially disbanded. Its functions, tasks, powers, territorial organizations, and unitary enterprises included in this system were distributed with additions and partial changes of their names between 4 executive authorities.

The choice of the topic of the article devoted to the analysis, disclosure of the content, and scientific evaluation of these extraordinary innovative documents and solutions to improve the management system of land use is caused by the lack of scientific and methodological publications of scientists and specialists of the country on the issues under consideration.

The study is a continuation of the author's published article in 2019. "Formation and development of the legislative base and land use management system of Uzbekistan" [8]. The study of international experience in the formation of a land management system indicates the absence of a unified approach and very diverse models of their creation. The most general principles are taking into account the peculiarities of countries, established traditions, and the priority of the form of ownership of land., and in some cases, the degree of their practical effectiveness.

## **2 Materials and methods**

In the study, the methods of scientific abstraction, comparative analysis and synthesis, induction and deduction, regulatory legal acts of the country underlying the development of land relations, and management systems for the use of land resources are used. In particular, laws, decrees, and resolutions of the head of the country and the Cabinet of Ministers, on their implementation and specification. In addition, the materials of the annual National report "Land Fund of the Republic of Uzbekistan", Statistical Yearbook, 2017-2020, characterizing the current picture of the issues under consideration, were used.

## **3 Results and discussion**

The total land fund of Uzbekistan as of January 1, 2021, equal to 448.97 thousand km<sup>2</sup>, remained at the level of the last five years. At the same time, in all categories of land use, at the expense of reserve lands and reserves, qualitative structural changes continued to occur, although not very noticeable in quantity, but very significant in their significance, reflecting positive trends in the socio-economic and environmental balance of the nature of land use.

The areas of settlements, forest resources, historical and cultural purposes, industry, transport, and communications have increased. A particularly significant fact was the growth of agricultural areas by 525.3 thousand hectares, thereby for the first time, the negative trend of their reduction that had developed over many years was violated [9].

Nevertheless, as noted in the decree, the concentration in one body of closely interrelated and very responsible tasks for the allocation of land, its accounting, the placement of crops, the implementation of land supervision, the preparation of cadastral records of land plots, buildings and structures (hereinafter real estate) directly by the registering authority generates a conflict of interests [6].

In particular, disputes arise between the State Committee and other sectoral ministries and departments involved in this resource used as a spatial basis, in agriculture and forestry, and as the main means of production. Note that in areas of irrigated agriculture, irrigation water should also be attributed to the latter, without which crop crops cannot grow and develop productively.

In addition to the noted reason, which is of a general nature, it is necessary to indicate specific shortcomings identified by the author during the analysis of the current picture associated with its functioning.

So, for the time since May 2017, the new management and chief specialists of the State Committee showed:

First, slowness in eliminating shortcomings that occurred in the past and low executive discipline;

Secondly, the inertia and weakness of the knowledge of specialists in the practical implementation of such popular innovative tasks put forward to them as the creation and regular updating of an electronic database of real estate objects, a geoinformation system of state cadasters, for a gradual transition to the valuation of real estate at market value, the introduction of modern information and communication technologies, the expansion of international cooperation in the field of land use, geodesy, cartography, and state cadaster, monitoring of agricultural land, sowing and growing crops with the use of unmanned aerial vehicles, ensuring the functioning of satellite navigation systems using geodetic data and cartographic materials;

Thirdly, the conditions for corruption have been preserved, due, among other things, to the concentration of power among officials of one authority throughout the country. Especially when considering the distribution of land plots by land-use entities, the reliability of their areas, the timeliness of registration of rights, assessment of the quality and value of land, including the seizure of land for public and state purposes, and prevention of unauthorized seizure of land.

These facts were largely related to the widespread bribery of officials, which did not contribute to the decision to implement the Law "On Combating Corruption" within this system [10].

What is the status and powers of the four State bodies involved in the management of land use at the present time?

Cadastral Agency under the State Tax Committee of the Republic of Uzbekistan (hereinafter - the Cadastral Agency), formed on the basis of the State Committee, is an authorized state body that ensures the implementation of a unified state policy in the field of registration of rights to immovable property, geodesy, and cartography, as well as state cadasters [6].

A general idea of the organizational structure of the Cadastral Agency, including state unitary enterprises (SUE), can be seen in Figure 1.

In February 2021. The Cabinet of Ministers approved the Regulations on the Cadastral Agency Annex 1 and on the Chamber of State Cadasters Annex 2 [11].

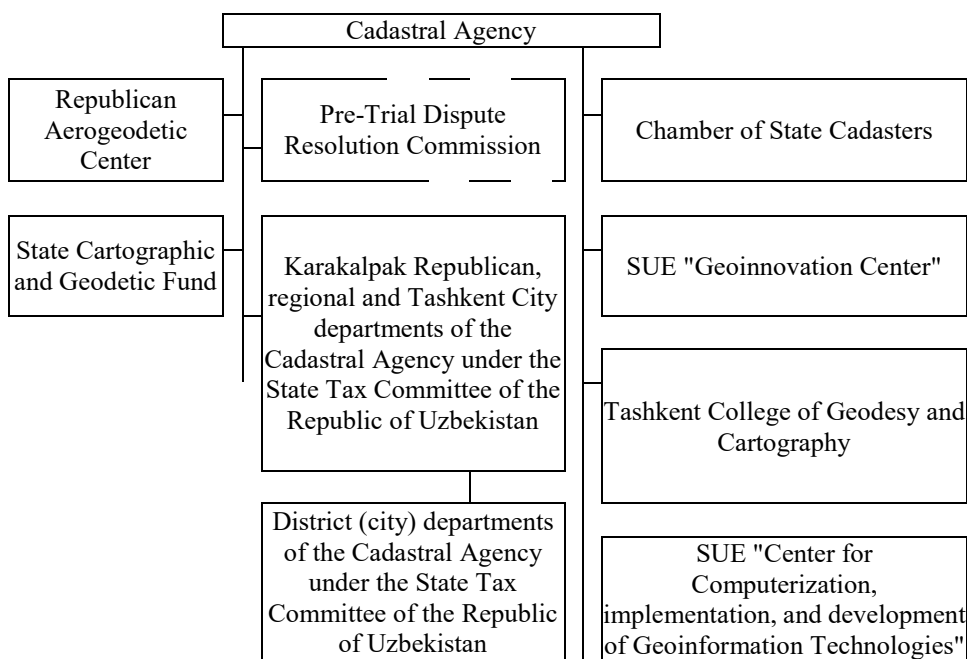
In particular, the Cadastral Agency is responsible for the high-quality performance of a total of 12 tasks, which, in accordance with the Regulations of the Cadastral Agency [11], are divided into three main areas of activity:

- registration of rights;
- geodesy and cartography;
- state cadasters.

Whereas sub-items

- expansion of international cooperation; and
- provision of retraining and advanced training, in our opinion, belong to the general most important tasks that improve the quality of work on the implementation of specific tasks related to each of the three areas of its activities.

The same goal is served by such a task as ensuring the implementation of a unified state policy, repeated in each area, which is also it is advisable to include in the general tasks.



**Fig. 1.** The organizational structure of the Cadastral Agency.

Therefore, to emphasize the differences in the nature of the tasks, as well as to exclude repetitions in the listed tasks in the Table.1 we have divided them into:

- specific #9 tasks, including in the field of registration of rights to immovable property #9, in the field of geodesy and cartography #3, in the field of state cadasters #3;
- general #3 tasks.

To fulfill these tasks, the Cadastral Agency is entrusted with a total of 115 functions, including 108 specific ones. Of these, in the sphere of "a" #29, in the sphere of "b" #64, in the sphere of "b" #15, and in general tasks #10: including ensuring the implementation of a unified state policy #3; to expand international cooperation #4; to ensure retraining and advanced training of personnel #3 functions. In other words, the number of tasks and functions of the Cadastral Agency itself relative to the tasks and functions of the State Committee increased by 2 and 47 units, respectively.

**Table 1.** Specific and general tasks of the Cadastral Agency.

<i>Areas of activity</i>		
The sphere of state registration of rights	The sphere of geodesy and cartography	The scope of state cadasters
<i>Specific tasks</i>		
- state registration of rights to immovable property; -maintaining the state land cadaster, cadaster of buildings and structures; - implementation of effective land supervision aimed at ensuring state registration of rights to immovable property, as well as preventing unauthorized seizure of land plots;	-carrying out cartographic monitoring using data and materials from aerospace surveys, topographic, geodetic, and cartographic surveys and studies, as well as remote sensing of the earth and geodynamic studies; -maintenance of the state cartographic and geodetic cadaster; -implementation of state geodetic supervision;	-coordination of the activities of public administration bodies and local public authorities in the field of maintaining state cadasters; -maintaining a unified system of state cadasters, -ensuring effective maintenance of the state cadaster of territories; -implementation of effective cadastral supervision aimed at ensuring compliance with the procedures for maintaining state cadasters.
<i>Common tasks</i>		
- ensuring the implementation of a unified state policy; - expansion of international cooperation; -providing retraining and advanced training of personnel.		

Special attention is paid in the Decree to the fact that from October 1, 2020, a new procedure for entry into force begins to take effect, and decisions are taken on any transactions (operations) related to existing types of rights to immovable property, exclusively after their state registration. This condition also applies to transactions with objects carried out according to the results of auctions and tenders, after the transfer of such information to the National Geographic Information System of the country (hereinafter referred to as the National Geographic Information System).

The state cadaster for all types of real estate is maintained on the basis of data taken from the National Geoinformation System. Moreover, the administrative responsibility of persons guilty of a late application for registration of rights to the immovable property has been established. We believe that maintaining such an order will allow us to exclude the facts of the use of allocated land plots and other real estate objects in the past without registration, and therefore without paying taxes.

In addition, since January 1, 2021, the procedure for providing various information about the earth and reporting on the performance of their duties has been established, in particular:

- all information about the type, contours, boundaries, and rights holders of land is entered into the online geoportal of the Cadastral Agency, which, in turn, is integrated with the National Geoinformation System;

- the land balance and its reporting, as well as the book of the district (city) land cadaster are maintained exclusively in the National Geoinformation System. It also forms a unified system of state cadasters:

- the relevant data of state cadasters are provided to the National Geoinformation System only through telecommunication networks directly cadastral affairs of land plots.

Subsequently, by the decree of the President, the Cadastral Agency in the field of registration of rights to land plots and maintaining state cadasters is additionally charged with:

identifying cases of non-implementation of state registration of rights to all types of illegal land plots; regardless of the category of land, as well as buildings and structures; identifying unauthorized seizure of land plots and unauthorized construction of buildings on these land plots sites;

taking measures to prevent unauthorized changes in the boundaries of land plots; ensuring control over compliance with the procedure for maintaining state cadasters. Moreover, for such violations, in accordance with the law, differentiated payment and penalties are provided for, depending on the type of violations, several times exceeding the established amount of the tax rate [12].

Another by-law, the Decree of the head of the country "On measures to ensure equality and transparency in land relations, reliable protection of land rights and their transformation into a market asset", testifies to the fact that there is a continuous search for the creation of the most effective and fair ways of using the land. The document introduced a fundamentally new market mechanism for allocating land plots in order to guarantee the property rights of landowners, as well as their introduction into free circulation as an object of civil law relations by determining the economic value of land [13].

At the same time, in all cases, land plots are allocated exclusively from free and reserve lands. In addition, for a clearer understanding of the new procedure for allocating land plots and eliminating ambiguity in its essence, the canceled existing Provisions on the issues under consideration are separately cited. The contents of this order are given in Table 2.

**Table 2.** New procedure for allocation of land plots.

<b>1. Types of owners' rights to the plot, depending on the form of ownership.</b>	
Private entities - on the basis of ownership and lease	Subjects of state bodies: institutions, enterprises, citizens' self-government bodies (hereinafter referred to as state organizations) based on the law permanent use
<b>2. Transfer of the right of the lease upon transfer of ownership of an object of immovable property</b>	
In case of transfer of ownership of a real estate object legally built on a land plot leased to another person, together with the ownership of this object, the lease right to this land plot also passes to him	
<b>3. Differentiation allocation of plots based on the purpose of land</b>	
Agricultural lands	Non-agricultural land
- only on the basis of the right of lease - based on the results of open electronic contests - the right to participate in the competition of producers of agricultural goods	- based on ownership rights - based on the right of lease - through electronic online auctions - the right of participation of any person
<b>4. For public-private partnerships and socially significant projects</b>	<b>5. For state and public needs</b>
- when implementing such projects, land plots are allocated only to a state entity with the right of permanent use. They can be leased to a private partner, non-governmental non-profit organizations, and other civil society institutions for the duration of the partnership agreement.	- land plots are allocated to state organizations for state and public needs by the decision of the Council of Ministers of the Republic of Karakalpakstan, the khokims of the regions, and the city of Tashkent with the right of permanent use.

6. Allocation of plots around apartment buildings	
The land plot for apartment buildings and adjacent plots, if they do not belong to other owners on the basis of other rights, are allocated to its residents for general use by the decision of the Council of Ministers of the Republic of Karakalpakstan, the khokims of the regions and the city of Tashkent by the type of permanent use right	
7. Some rights that were in effect are revoked and at the same time retaining	8. Are considered a violation of the procedure for allocating land plots
- the procedure for allocating land plots on the right of lifelong inherited possession, permanent possession, temporary use is canceled. At the same time, these rights to previously allocated land plots are retained by their owners in accordance with the current procedure;	-one document or simultaneous seizure of land plots, their transfer to reserve lands, and their allocation to other persons are considered a violation and serve as a basis for bringing to responsibility;
9. All the powers of local public authorities are abolished	
- allocation of land plots, or another disposal thereof, except for the authority to allocate land plots for permanent use to state organizations, approval of the results of an open tender, signing of a lease agreement, registration of the results of privatization of land plots in accordance with this Decree; - recognition, modification, cancellation; transfer from one category to another; - provision of land for collective gardening; - establishment of investment obligations in respect of privatized land plots or other obligations restricting the free disposal of private property.	
10. Cancel completely all procedures, benefits and exceptions established by law, providing for the allocation of land plots in a different manner than provided for by this Decree. 11. Prohibit state authorities should take the initiative to directly allocate land plots or establish benefits and exceptions in another way.	
12. Exception to the general rule The Cabinet of Ministers (from August 1, 2021) has the right to directly lease land plots only in the following cases:	
1. State educational and research institutions - at the suggestion of the Ministry of Agriculture	2. Agro-industrial cluster - at the suggestion of the Ministry of Agriculture, the Council of Ministers of the Republic of Karakalpakstan, the khokims of the regions when depositing funds in the amount of 2 times the normative value of the site
3. For the implementation of a large investment project, determined by selecting the best offer, with an equivalent value of at least 10 million US dollars (increases depending on the size of the land plot) - with the initial placement of funds equal to at least 10 percent of the project cost to a special settlement account	4. Enterprises with the participation of foreign investments, international associations and organizations, foreign legal entities and individuals - with payment at market value for obtaining the right to lease (with the exception of international associations and organizations)

Finally, taking into account the numerous cases of illegal acquisition of land that took place in the past, this document established the Republican Council for Early Detection of Violations of Land Legislation and Coordination of Activities aimed at preventing them, headed by the Prosecutor General of the Republic of Uzbekistan, as well as local territorial councils headed by the khokim and approved their compositions with broad powers.

Let's consider the tasks and functions of the Chamber of State Cadasters of the Cadastral Agency (hereinafter referred to as the Chamber). It is directly subordinate to the Cadastral Agency and is its structural subdivision. The Chamber was established on the basis of the National Center for State Cadasters, Geodesy, and Cartography and is an authorized State institution for:



- registration of rights to immovable property.
- implementation of the unified register of its addresses.
- maintenance of the land cadaster, cadaster of buildings and structures, and cadaster of territories.
- unified system of state cadasters.

The Regulation on the Chamber includes 7 chapters and 4 paragraphs. In its system, a) Karakalpak Republican, regional, Tashkent city administrations and b) district (city) branches of the Chamber are formed on the basis of the former state enterprises of land management and real estate cadaster of the Republic of Karakalpakstan, regions, and Tashkent, as well as their branches in districts (cities), respectively. At the same time, territorial administrations conduct state registration of rights to immovable property, organize the maintenance of state cadasters of territories. Whereas, the district (city) branches of the Chamber provide services for the preparation of cadastral cases at the request of state bodies and organizations, individuals and legal entities, regardless of the location of real estate objects [10]. The main three tasks of the Chamber are the following: - organization of state registration of rights to immovable property;

- maintenance of state cadasters.
- making proposals to expand international cooperation in the field of creation and use of geo-spatial data, state registration of rights to immovable property.

For their implementation, the Chamber performs #52 functions, including in the field of state registration of rights to immovable property #33, in the field of state cadaster #18, in the field of international cooperation #1.

The Ministry of Agriculture has become the second state authority, to which the following tasks, functions and powers of the State Committee were transferred:

- monitoring of agricultural lands and crops,
- placement of agricultural crops,
- implementation of state supervision over the protection of agricultural lands,
- conducting soil bonification,
- determining the normative value of agricultural land,
- increasing soil fertility,
- conducting research in the field of soil science and geobotany.

Due to the need to perform new functions in the structure of the Ministry of Agriculture:

- The State Research and Design Institute "Uzdaverloikha" of the **Cadastral Agency**, its territorial divisions, staff units, and material and technical base were transferred;

- The post of Deputy Minister responsible for accelerated digitalization of the agricultural sector has been introduced;

- Two departments have been formed - for the development of digital technologies in the agricultural sector and for the development of geoinformation technologies.

State Committee of the Republic of Uzbekistan on Ecology and Environmental Protection – This is the third executive authority entrusted with the function of the State Committee for Monitoring and Prevention of Negative Phenomena on all non-agricultural lands. in addition to the previous ones. powers.

Previously, its main task was to coordinate the activities of all ministries, departments, economic management bodies and business entities in the field of environmental monitoring, including the disbanded State Committee [14].

The Ministry of Construction is the fourth executive body responsible for the quality of performance of duties by employees of the Ministry itself and its local subdivision: the Main Directorate of the Council of Ministers of the Republic of Karakalpakstan, regional khokimiyats, Tashkent, as well as district (city) construction departments, which now directly report directly to the Ministry.

In particular, on the issues of compliance with planned construction works on residential and non-residential facilities:

- exercises control over the compliance of allocated land plots to land users with urban planning norms and rules;
- in order to ensure the execution of regulatory documents established by state territorial bodies related to the allocation of land plots, gives an opinion in accordance with the Urban Planning Code and architectural design tasks, through the AIS "YERELEKTRON";
- issues a reasoned conclusion on the resolution of the situation in accordance with the law related to the housing disputed by citizens.

## 4 Conclusions

Thus, the content of the new Decree and the Decree of President Sh. Mirziyoyev, and other documents reviewed in the article make fundamental changes to the country's land fund management system, including rights to it, their registration, accounting and evaluation, provision of multi-level, diverse information to consumers based on the use of modern geoinformation system, including AIS "YERELEKTRON, online geoportal.

At the same time, these by-laws are a logical continuation of the new approaches initiated in 2017 at the 4th stage of the formation and development of the legislative framework for further improvement of the land use management system.

An organic continuation of the powers, tasks, and functions of the previous body. but already differentiated between the four executive authorities: 1. The State Tax Committee of the Republic of Uzbekistan and its Cadaster Agency system and its structural subdivision - the Chamber of State Cadasters. The Ministry of Agriculture; the State Committee for Ecology and Nature Protection and the Ministry of Construction.

## References

1. Decree of the President of the Republic of Uzbekistan dated February 7, 2017 No. **UP-4947** "On the strategy of actions for the further development of the Republic of Uzbekistan", Appendix 1 "Action strategy for five priority areas of development of the Republic of Uzbekistan in 2017-2021" (Tashkent, 2017)
2. "Land fund of the Republic of Uzbekistan" 1991 - 2020 National report (Tashkent, 2017)
3. Decree of the President of the Republic of Uzbekistan dated May 31, 2017 National database of legislation of the Republic of Uzbekistan No. **UP-5065** "On measures to strengthen control over the protection and rational use of land, improve geodetic and cartographic activities, streamline the maintenance of state cadastres" (Tashkent, 2017)
4. Decree of the President of the Republic of Uzbekistan dated May 31, 2017 National database of legislation of the Republic of Uzbekistan No. **PP-3024** "On measures to further improve the activities of the State Committee of the Republic of Uzbekistan on land resources, geodesy, cartography and state cadastre" (Tashkent, 2017)
5. Decree of the Cabinet of Ministers dated July 19, 2017 No. National database of the legislation of the Republic of Uzbekistan "Regulations on the State Committee for Land Surveys and Land Surveys" and "Regulations on the Fund for the Development of Land Relations and the State Cadastre" **529** (Tashkent, 2017)
6. Decree of the President of the Republic of Uzbekistan dated September 7, 2020

- National database of the legislation of the Republic of Uzbekistan "On measures to radically improve the system of maintaining land records and state cadastres" **UP-No. 6061** (Tashkent, 2020)
7. Decree of the President of the Republic of Uzbekistan dated September 7, 2020 No. **PP-4819**" On measures to organize the activities of the Cadastre Agency under the State Tax Committee of the Republic of Uzbekistan National database of legislation of the Republic of Uzbekistan (Tashkent, 2020)
  8. U. Kh. Nigmatjanov, *Formation and development of the legislative framework and land use management system in Uzbekistan*, J. Irrigation and melioration, special issue, 152 (Tashkent, 2019)
  9. Statistical Yearbook 2017-2020 (Tashkent, 2021)
  10. Law on Combating Corruption of the Republic of Uzbekistan dated January 3, 2017 No. **419**- 2016 (Tashkent, 2017)
  11. Decree of the Cabinet of Ministers "On approval of the Regulations on the Agency for Cadastre under the State Tax Committee of the Republic of Uzbekistan and on the Chamber of State Cadastres of the Agency for Cadastre under the State Tax Committee of the Republic of Uzbekistan" dated February 12, 2021 No. **66** (2021)
  12. Decree of the President of the Republic of Uzbekistan "0 additional measures to improve the system for the use and protection of agricultural land" dated February 2, 2021 No. PP-5066 - National database of legislation of the Republic of Uzbekistan (Tashkent 2021)
  13. Decree of the President "On measures to ensure equality and transparency in land relations, reliable protection of rights to land and their transformation into a market asset No. **6243** of 06/08/2021 National database of legislation of the Republic of Uzbekistan (Tashkent, 2021)
  14. Decree of the President of the Republic of Uzbekistan "On additional measures to improve the public administration system in the field of ecology and environmental protection PP No. **3956** dated 03.10.2018 National database of legislation of the Republic of Uzbekistan (Tashkent, 2018)
  15. V. Balázsik, Z. Tóth, I. Abdurahmanov, *Analysis of Data Acquisition Accuracy with UAV*, Int. J. Geoinformatics, **17**, 1-1 (2021)
  16. Z. Mamatkulov, E. Safarov, R. Oymatov, I. Abdurahmanov, M. Rajapbaev, *Application of GIS and RS in real time crop monitoring and yield forecasting: A case study of cotton fields in low and high productive farmlands*, J. E3S Web Conf., **227** (2021)