INFORMATION SYSTEM ON MAINTAINING THE STATE CADASTRE OF BUILDINGS AND STRUCTURES IN UZBEKISTAN.

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ABSTRACT

This article analyzes the system of maintaining the "State Cadastre of Buildings and Structures" in Uzbekistan, its legal foundations, integration with information technologies and practical significance. The main purpose of the state cadastre is to determine the legal status of buildings and structures, their location, technical characteristics and registration of property rights. During the study, the digitalization of the cadastral system, its compatibility with modern geoinformation systems, as well as the ongoing reforms in this area are highlighted. Analytical considerations will also be given on ensuring transparency of the cadastre of buildings and structures and their impact on economic development

The state cadastre of buildings and structures plays an important role in the regulation of property rights, urban plans and infrastructure development in modern society. Effective implementation of this system in Uzbekistan will serve not only to ensure legal transparency, but also to coordinate the processes of economic development and urbanization.

State cadastre of buildings and structures is the process of official registration of information about all types of buildings and structures, determination of their legal status and registration of technical and economic indicators related to them. This system is maintained by a state, where location of buildings and structures, property rights, compliance with building standards and other important information is stored.

Maintenance of the state cadastre of buildings and structures in Uzbekistan, its legal basis, digitalization process, economic and social significance will be analyzed. During the study, proposals are put forward for the integration of the cadastral system with modern technologies, the use of geoinformation systems and the elimination of existing problems.

Legal basis for maintaining state cadastre "Buildings and structures" in Uzbekistan

1. Uzb. Res. "Land Code" dated 30.04.1998 (as amended in 2025)
2. It is carried out in accordance with the Resolution of the Cabinet of Ministers of June 2, 1997, №. 278

Maintenance of the state cadastre of buildings and structures in Uzbekistan is based on the Law "On State Cadastres" and other legislative acts. It provides for the following

provisions: mandatory registration of real estate objects and must be reflected in the state register;

Providing cadastral information in a uniform manner with respect to objects of state and personal property;

Cadastre maintenance is state-driven and formalized through public services.

As long as we know this information, we may have questions about why it is necessary. Here's how I might respond:

1. State tax system - tax rates are established in relation to buildings and structures on the basis of cadastre data.
2. Banking and financial institutions - when pledging real estate objects, their cadastral value and technical condition are assessed.
3. Legal and commercial contracts- Any legal relationship related to buildings and structures, including sales, leases and other agreements, is based on the information recorded in the state cadastres.
4. Urban planning and infrastructure projects- Cadastre data is the main source in the development of urban development plans and infrastructure projects.

We have already learned in which areas the cadastre of buildings and structures is used, and now I will tell you a little about the acquisition of this data, in the first place, measurement work is carried out, after which the coordinates of the building are determined using GPS technologies, topographic maps are drawn up, a database is formed, aerial photos are taken and sent for inclusion in GIS and GAT technologies. The input of such data is entrusted to the State Urban Development Cadastre. Registration of this building and structure is carried out by the Chamber of State Cadastre. Then, the collected data is transferred to the specialists of the institution. And the specialist performs the tasks of entering into the Geoportal. So we've now gone through the process that goes all the way up to data collection. In the following sections, we will talk about the data system, maintenance procedures, stages, data formation, modern requirements.

The process of maintaining the state cadastre of buildings and structures includes the collection, registration, storage, updating and registration in the state register of legal and technical information about real estate. This process is important for the protection of real estate rights in Uzbekistan and maintaining the state register.

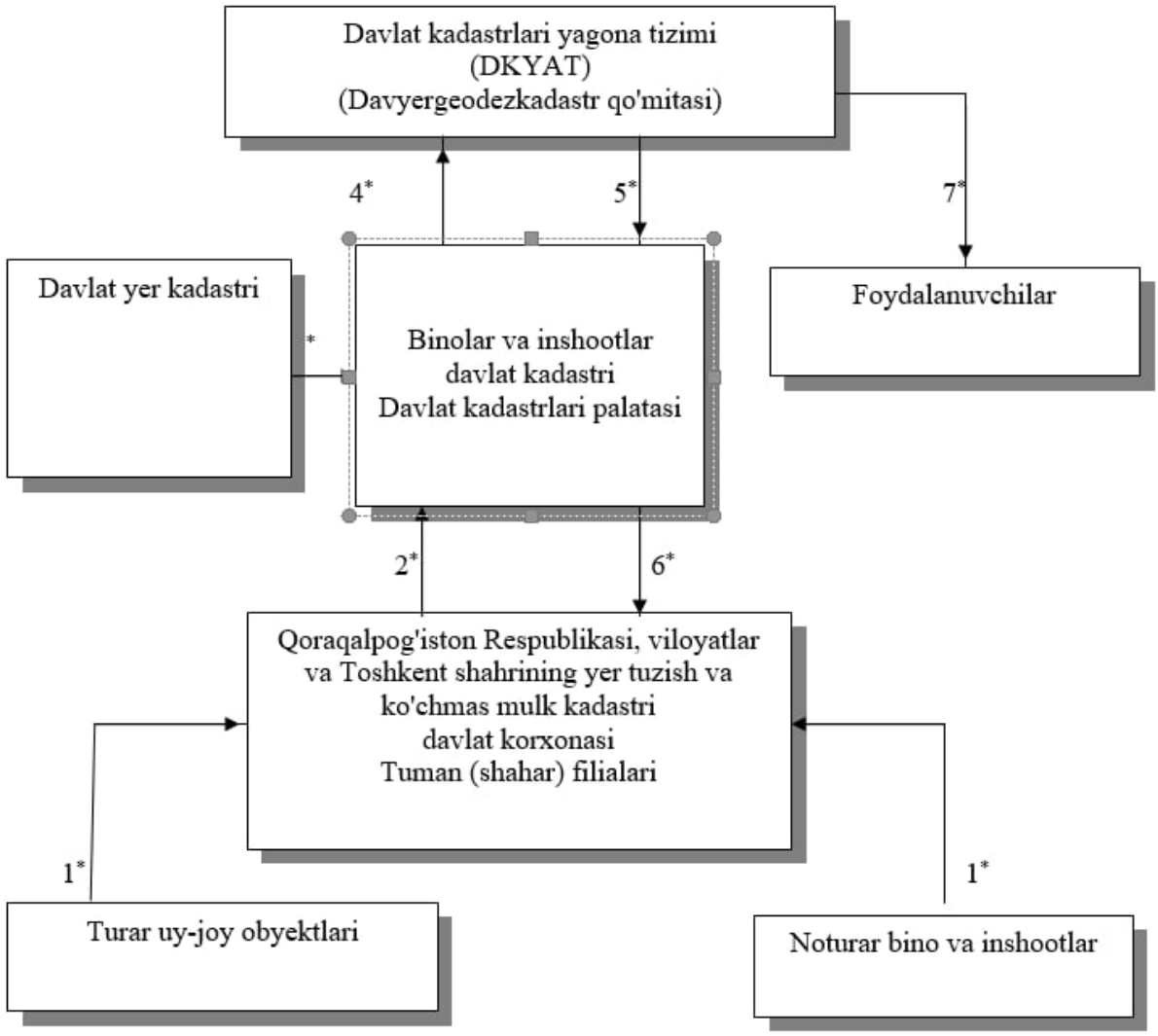

Figure 1. Data formation is presented.

This diagram shows the order in which information on buildings and structures is formed:

Housing objects and non-residential buildings and structures – In this part information about residential and non-residential buildings is formed and entered into the cadastral system.

State Enterprise of Land Management and Real Estate Cadastre of the Republic of Karakalpakstan, regions and the city of Tashkent (district / city branches) – This organization maintains a cadastres of land plots and real estate objects in the regions and the city of Tashkent. This information is then transferred to the State Cadastre system of Buildings and Structures.

State Land Cadastre – This section contains information about land plots and it is also linked to the State Cadastre system of Buildings and Structures.

State cadastres of buildings and structures, chamber of state cadastres – This is a central organization that collects, analyzes and stores cadastral data on buildings, structures and land plots.

Unified system of state cadastres (DKYaT) (Davergeodezcadastr Committee) – This is the highest level of the whole system, which manages and regulates all cadastral data.

Users – the data formed through the cadastre system is provided to end users. These can be individuals and legal entities that receive documents, lists and other necessary information.

Directions in the diagram 1. 2. 3. 4. 5. 6. 7. It represents different processes, that is, indicates the flow of data., This system is used to officially register, document land plots and buildings, and communicate information to users.

Buildings and structures through information systems maintaining state cadastres are carried out in the following stages:

Stage 1 - determination of technical indicators of buildings and structures by means of measuring instruments and accounting in the information system;

Stage 2 - placement of objects in the drawing and drawing up of a digital cadastral plan;

Stage 3 - entering the data into the information system or updating the existing data, taking into account the data received in the previous stages.

Stages of collecting data from the state cadastre of buildings and structures

Submitting an application for object registration:

The owner of the real estate submits an application for registration of the building or structure in the state cadastre. The application is accompanied by technical documentation of object (project documentation, act confirming commissioning and other documents).

Initial data collection and verification:

The cadastral authorities study the location, legal status and technical condition of the building or structure. Technical data is collected, including such indicators as the area of the object, the number of floors, the total volume, the quality of building material. The data will be compared with the actual state of the object and, if necessary, verification will be carried out.

Registration of the object in the State Register and issuance of cadastral number:

A building or structure is registered in the state register and assigned a unique cadastral number. This number serves as an identifier at the formalization of objects in the state register.

Updating cadastral maps and displaying the object on the map:

With the help of GIS technologies, the inclusion of a building or structure in the cadastral inventory is carried out. During the mapping process, the location, boundaries and technical characteristics of the object are indicated.

Keeping information in the state register:

All information about a building or facility is stored in the state register. Information is systematically updated and stored under protection by state cadastral bodies

Data update and monitoring:

In case of changes (reconstruction, refurbishment or expansion) related to a building or structure, cadastral data is updated. Government agencies regularly monitor changes in the object and update the cadastral register

Data provision and maintenance:

Cadastral information about the building or structure is provided to the tax service, banks, legal organizations and citizens. Electronic services have been created, allowing citizens and entrepreneurs to get the necessary information through public service centers or online platforms.

Now, when it comes to the formation of a data system, I will give you the following diagram:

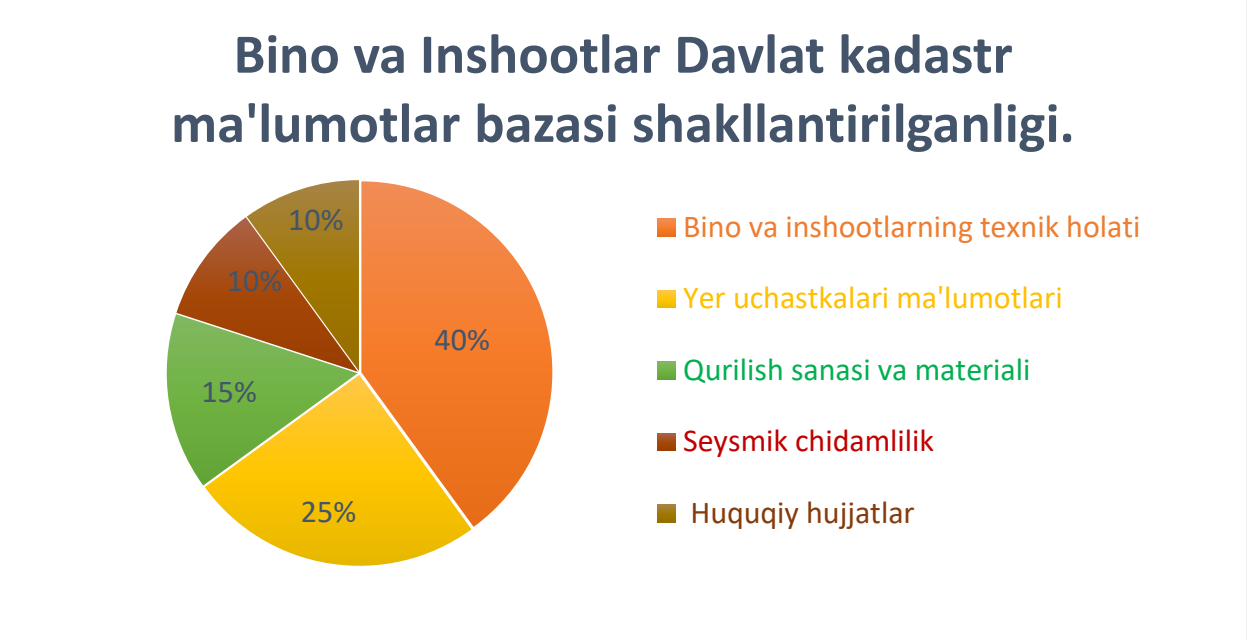

Figure 2. database.

A system is a structure or process that enables interconnected elements or parts to function as a whole. In this diagram, **the "Unified System of State Cadastres"** refers to a single state system created to collect, store and manage information on land plots, buildings and structures.

Buildings and structures need digitalized and automated solutions to provide accurate, fast and reliable information about buildings and structures to meet modern requirements of the state cadastre system.

These requirements are aimed at increasing transparency, reliability, and convenience in all real estate activities.

Importance of adapting the system to modern requirements

Buildings and structures play an important role in the adaptation of the state cadastre system to modern requirements, the development of the real estate market of Uzbekistan, the more effective implementation of urban development projects and the regulation of legal relations related to real estate.

Cadastre data is usually stored in a state-owned or special database and is managed based on security principles such as confidentiality, accuracy and continuity. This data is often of legal and financial importance and needs to be protected from their improper use or unauthorized access.

The main points regarding the storage of cadastral data and security measures:

Data Encryption: Data in transit and in transit will be encrypted. Thus, data is protected from unauthorized entry.

Database Management: Access for users should be limited to the necessary information only. Authentication and authorization systems play an important role in this.

Data backup: Data is backed up regularly to protect against user errors or system failures.

Logging and monitoring systems: Logging and logging of access and data changes is an important part of cybersecurity measures. It can help identify improper data use.

Additional security technologies: technologies such as Fireshall, IDS (Intrusion Detection System) and DLP (Data Loss Prevention) are used to protect cadastral data from external and internal threats.

The main ideas of the topic: This system is of decisive importance in the registration of real estate ownership, taxation, urban planning and planning. The state cadastre of buildings and structures is a necessary and reliable source of information on the regulation of legal relations on real estate in Uzbekistan, tax calculation and infrastructure planning.

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