

**MODERN METHODOLOGICAL FOUNDATIONS FOR ASSESSING THE IMPACT OF  
THE LAND CADASTRE ON INVESTMENT PROCESSES**

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**Annotation:** This article explores the impact of land cadastre on investment processes and modern methodological approaches to its assessment. The role of the cadastre system as a key factor in investment activity is analyzed. Reliable data on land resources is considered a crucial element for investors. The study is based on advanced international practices. The article proposes ways to improve the investment climate through land cadastre systems.

**Keywords:** land cadastre, investment, evaluation, methodology, geoinformation, cadastre system, land resources, legal framework, investment climate, analysis.

**Introduction.** The land cadastre serves as the foundation for managing land resources in any country, holding significant importance in economic, legal, and social domains. The availability of accurate, reliable, and transparent information about land resources is a decisive factor in attracting investments [1]. In today’s global economy, alongside financial stability, legal clarity regarding land plays a critical role for investors [2]. The land cadastre system is considered one of the key instruments determining the quality of the investment environment [4]. The role of cadastre systems, developed based on modern geospatial information technologies, is increasingly vital in enhancing investment activity within a country. Consequently, the development of new approaches and methodologies for assessing the impact of the land cadastre on investments is a pressing need.

**Relevance of the topic.** In Uzbekistan, enhancing investment attractiveness is one of the priority directions of state policy. The transparency of information about land resources remains a crucial factor for foreign investors [3]. In recent years, digitization and the introduction of geospatial information systems have been implemented in the cadastre sector [5]. These technologies enable rapid and comprehensive access to data on land conditions, their efficient use, and legal status, thereby reducing errors and risks in investment processes. Therefore, it is essential to develop scientifically grounded methods for evaluating the impact of the land cadastre on the investment environment.

**Problem statement.** Currently, the land cadastre system lacks fully developed, scientifically substantiated mechanisms for assessing its impact on investment processes. There is no unified methodology for evaluating the timeliness, accuracy, and accessibility of cadastral data. The use of the cadastre system in investment analyses remains limited to a statistical level [6]. Discrepancies between legal and technical land-related data create barriers for investors [7]. Furthermore, the economic efficiency of the land cadastre’s influence has not been sufficiently studied. This leads to uncertainties within the investment environment.

**Degree of problem investigation.** A number of scientific studies have been conducted internationally in this field. For instance, William Dale has explored the role of the land cadastre in economic analysis [1]. Deininger and Feder have demonstrated the linkage between land tenure systems and investment [2]. The Land Tenure Manual developed by the FAO highlights the role of cadastral information in investment decision-making [3]. Countries such as China, Turkey, and the Netherlands utilize GIS-based cadastral information systems for investment

analyses. In Uzbekistan, efforts in this direction are in an early stage, yet in-depth methodological analyses remain insufficient. Most studies in this area superficially connect the cadastre system to the investment environment.

**Methods for problem resolution.** Addressing this issue requires a systemic approach based on the use of modern geospatial information technologies. Primarily, it is essential to establish an open, interactive database for investors through digital cadastre platforms [10]. Additionally, a set of indicators is proposed to reflect the role of cadastral information in investment risk analysis. Drawing on the experiences of advanced countries, the introduction of interactive cadastral maps and investment rating systems is deemed appropriate. Integration of cadastral and investment monitoring systems through GIS software is recommended [11]. The experiences of countries like China and Turkey are significant in this regard [12], [13]. Such systems enable automated analyses of regions targeted for investment. The use of artificial intelligence to create predictive models of land conditions can facilitate the development of investment recommendations. Multi-criteria decision-making methods can be applied in the assessment process. Based on expert surveys, the impact of the land cadastre on investment potential can be evaluated using a rating system. In the final stage, practical recommendations are developed based on the analyzed methodology.

**Results.** During the research, the role of cadastral information in investment decision-making was thoroughly analyzed. It was demonstrated that cadastre systems developed based on GIS positively influence the investment environment [4]. Analysis of advanced foreign experiences revealed an increase in efficiency indicators for attracting investments through these systems. The transparency of land legal status was confirmed as a critical factor in reducing investment risks. Technical and legal proposals were developed to make the cadastre system in Uzbekistan more investor-friendly. Based on expert analyses, a set of evaluation indicators was formulated. The creation of predictive models for land conditions using artificial intelligence was recommended [8]. The proposed methodological approaches can enhance investment efficiency.

**Proposals:**

- Establish an online platform to ensure the transparency of land cadastral data.
- Integrate the land cadastre system with GIS and artificial intelligence.
- Introduce a specialized cadastral rating system to assess investment potential.
- Compile and regularly update a list of lands designated as “Ready for Investment” for investors.
- Consolidate legal, cadastral, and economic land-related data into a unified digital platform.
- Develop regulatory documents for the use of cadastral data in investment monitoring.
- Organize specialized training programs for experts in land cadastre and investment processes.
- Establish a system for regularly auditing the accuracy and relevance of cadastral data.
- Apply multi-criteria evaluation methods to determine investment potential through the land cadastre.
- Introduce a system for analyzing cadastral data related to investments through scientific centers and issuing analytical reports.

**Conclusion.** The impact of the land cadastre on investment activity is profound and multifaceted, underscoring a significant need for modern methodological assessment. Enhancing cadastre systems based on digital technologies can improve the investment environment. A systemic approach and a comprehensive set of indicators play a crucial role in this evaluation. Scientifically grounded methodologies serve to mitigate risks for investors [9]. For Uzbekistan,



the adoption of modern approaches can shape a cadastre system that supports economic development [15]. Implementing the proposed methods in practice will lay the groundwork for increased investment activity.

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