

Research on the Implementation Plan of the Third National Land Survey

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Abstract

Land survey is a survey of national conditions and national strength. Regular land survey is the main means to comprehensively obtain the basic land data. Only by mastering the accurate land basic data and finding out the current land use situation can we meet the needs of economic and social development. The third land survey is an important measure to deepen the supply side structural reform, help rural revitalization, and save and intensive use of land and resources. Make full use of all kinds of data of land use and land ownership, according to the basic procedures and methods of land survey, comprehensively investigate the situation of land use, master the quantity, distribution and utilization status of cultivated land, garden plot, forest land, grassland, land, etc.; the quality and composition of cultivated land, and the land use status within the scope of cities and development zones. Establish land survey database, comprehensively analyze the current situation of land use, maintain the current situation of land survey results, meet the requirements of establishing database management information platform, and provide data support for the whole process of database management system.

Keywords

Land survey; Land use status; Database.

1. Introduction

Land survey is a survey of national conditions and national strength, and regular land survey is the main means to comprehensively obtain basic land data. With the sustainable development of China's economy and society ^[1], the situation and tasks of land and resources management and ecological civilization construction are also undergoing significant changes, and the existing land survey results have been difficult to meet the new needs. Only by comprehensively mastering the accurate basic land data and finding out the current land use situation can we meet the needs of economic and social development ^[2].

The three land survey is a comprehensive measure to implement Xi Jinping's new socialist ideology with China's characteristics, deepen the structural reform of supply side, help rural revitalization, conscientious and conscientious protection of cultivated land resources, save and make intensive use of land and resources, improve the property right system of natural resources assets, and build an important measure of building a new pattern of security, green, efficient, rule of law, harmonious and beautiful land ^[3]. Based on the base map of urban-rural integration survey, the land type, area and ownership of the land are investigated on the spot by making overall use of the existing data, so as to comprehensively grasp the quantity, distribution and utilization status of cultivated land, garden land, forest land, etc., as well as the quality and composition of cultivated land in this area, as well as the land use status within the scope of towns and development zones, and establish a set of image, land type, scope ^[4], and land use status The land survey database and management analysis system integrating area and ownership are integrated to build a service platform for interconnection and sharing ^[5].

2. Main tasks

2.1 Land use status survey

On the spot investigation of each plot of land type, location, scope, area, etc., to find out the distribution and utilization of various types of land. Taking counties (cities and districts) as the basic unit and based on the survey base map provided by the state and province, the land type, location, scope and area of each map spot are investigated on the spot, and the quantity, quality and distribution of cultivated land, garden land, woodland, grassland and other agricultural land in the province are found out, and the land for cities, towns, villages, independent industries and mines, water area and water conservancy facilities is also investigated Land distribution and utilization^[6].

Make full use of the results of cadastral survey and real estate registration, carry out detailed investigation on the land use status in cities, towns and villages, and find out the land use status of commercial services, industry, storage, housing, public management and public services and special land use in urban and rural areas.

2.2 Land title investigation

The results of collective land ownership registration and state-owned land use right registration should be implemented in the land survey results, and supplementary investigation should be carried out. In combination with the national rural collective assets appraisal work, the completed registration results of collective land ownership right confirmation and state-owned land use right registration that have been completed outside the scope of urban state-owned construction land are included in the land survey results, and supplementary investigation is carried out for the changed ones^[7].

2.3 Investigation and evaluation of special land use

Detailed investigation of cultivated land, investigation of construction land without construction approval, investigation and evaluation of cultivated land quality grade, investigation and evaluation of cultivated land grading and grading, land survey of ecological environment protection scope in Qinling Mountains, land survey of transportation and logistics land. Based on the current situation of land use, land ownership survey results and various management information formed by land and resources management, combined with the needs of fine management of land and resources, economical and intensive land use evaluation and related special work, a series of special land use investigation and evaluation were carried out.

The cultivated land within the river or lake area, the cultivated land within the forest area, the cultivated land within the pastoral area and the sandy wasteland shall be investigated in detail, and classified and marked, so as to find out the status of various cultivated land resources. The examination and approval boundary of newly added construction land shall be implemented on the land survey results, and the actual utilization status of the undeveloped land within the approved land use scope shall be found out. Investigation and evaluation of cultivated land quality grade and cultivated land grading. Based on the investigation and evaluation of cultivated land quality, the latest survey and evaluation results of cultivated land quality grade and cultivated land classification and grading evaluation are implemented on the current land use map, and the evaluation results are updated and improved^[8].

2.4 Construction of land use database

Establish the provincial, municipal and county land survey database and management analysis system. Taking the county (city, district) as the unit, organize and carry out the construction of county-level land survey database and management analysis system, and realize the comprehensive management and analysis of land use status survey results, ownership survey results and special survey results. Based on the results of county-level land survey database, the province and city respectively organized the construction of land survey database and management analysis system at the same level, and carried out integrated management, dynamic storage, statistical summary, data analysis, fast service, and comprehensive query of land use status survey results, ownership survey results and special survey results^[9].

Establish a provincial, municipal and county land survey data sharing service platform. The province, city and county will build sharing service platforms to realize the interconnection and sharing services of land survey data, special survey data and various basic data such as land planning and basic surveying and mapping.

3. Technical method

Based on the survey base map of urban-rural integration, combined with the land and resources management data and the survey data of relevant departments, the field survey work base map is made. The 3S integration technology is used to carry out field investigation one by one, and the land type, scope, ownership and other information of the survey spots are refined. The additional survey is carried out for the new features that can not be reflected in the image. The proof photos with positioning coordinates should be taken on the spot. Using the existing cadastral survey results, the land use status information of each piece of land in urban and rural villages is obtained, and it is connected with the urban-rural integration survey base map. For the areas that have not completed the cadastral survey, we should use the urban-rural integration survey base map to carry out on-the-spot investigation on the land use status within the urban and rural villages.

Based on the urban-rural integration survey base map, according to the integrated operation mode of investigation, proof and database construction, the integrated data collection and database construction mechanism of internal and external work and mobile Internet technology are used to carry out the investigation and collection of land use status information with mobile survey equipment, so as to realize the matching and connection of various thematic information and each map spot, and form a set of graphics, images, attributes and documents Integrated land survey database. The automatic comparison and human-machine interaction method were adopted to conduct the intra industry comparison of the results submitted by the municipal level, and to check the consistency of the class and image and the county level certification photos, and to carry out online evidence and field verification by using the Internet plus technology^[10].

According to the needs of different groups, comprehensive use of big data, cloud computing, Internet and other technologies, optimize the efficiency of massive data processing, and build land survey database, management analysis system and shared service platform.

4. Expectation

Through the national land survey work, to promote the national economic development and social progress, as well as to promote the construction of ecological civilization, resource conservation and utilization, cultivated land and environmental protection, social harmonious development, improve the enthusiasm of all departments to participate in the land survey work, and improve the whole society's understanding of the importance of this survey. To promote the attention of all sectors of the community to the land survey work, to form a division that both actively supports and dares to supervise the land survey work, so as to ensure the authenticity, comprehensiveness and accuracy of the land survey results.

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