

Research on the Optimization of Land Spatial Planning and Management Strategies from the Perspective of Sustainable Development

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Abstract: Land spatial planning is a relevant arrangement made at the spatial and temporal levels for the development and protection of a certain region's land space. Faced with the new economic development situation in China, various advanced technologies are widely penetrating into multiple different industries. With the establishment of the Ministry of Natural Resources of China, the functions of territorial space utilization control and environmental protection restoration will be unified, and in the future, China's natural resource development, utilization, and protection activities will be effectively controlled. Both people's lives and national development cannot be separated from natural resources. By implementing natural resource asset management, we can ensure the full utilization of natural resources, meet future development needs, and avoid excessive waste and consumption. From a national perspective, national spatial planning is a major guide for promoting national spatial development and also a spatial blueprint for sustainable development, which can provide effective support for related development, protection, and construction activities. This article is based on the perspective of sustainable development to study the optimization of China's territorial spatial planning and management strategies.

1. Introduction

As an action outline level document for the future spatial development and utilization of a region, the formulation and promulgation of territorial spatial planning will play a guiding role in the future population distribution, industrial layout, ecological environment protection, and other aspects of the entire urban area [1]. Since the reform and opening up, China's economy has always shown a rapid growth trend, and the pace of industrialization and urbanization is gradually advancing, which has put forward new work requirements for the development of the entire national land space. It is necessary to plan a new strategy for future national land space development with a comprehensive development perspective and a focus on the present. By formulating a scientific direction for national land space development, it caters to the sustainable development concept advocated by the current era of development [2].

Natural resources are an indispensable material guarantee for the sustainable development and intergenerational continuity of human economy and society. Natural resources and natural environment are two different concepts. Natural environment refers to all objective natural beings around humans, while natural resources are the product of human understanding of these elements from the perspective of their own needs and endowing them with value [3]. The scarcity of natural resources includes both the absolute scarcity where the total demand exceeds the total supply, and the relative scarcity caused by uneven distribution, geopolitics and other factors. With the establishment of the Ministry of Natural Resources of China, the functions of land space use control and ecological protection and restoration have been unified, and the future development, utilization, and protection of natural resources in China will be effectively regulated. Land spatial planning needs to consider coordinating the management of natural resource assets, in order to achieve the goal of preserving and appreciating natural resource assets on the basis of bottom line control and quantity preservation. Land use control is one of the key tasks to achieve phase equilibrium between land and space resources protection and development under the requirements of China's sustainable land and space development and ecological civilization construction. In recent years, against the backdrop of steady socio-economic development, China's urban construction industry has

developed rapidly. The level of urbanization in China is increasing year by year, and urban construction occupies an increasing amount of land, resulting in an increasingly tight supply of land available for urban planning [4]. In order to comprehensively enhance the modernization level of the national land spatial governance system and governance capabilities, it is necessary to achieve a reasonable layout of urban planning plans, standardize and scientifically arrange urban planning plans, and combine current problems to clarify the relationship between the national land spatial planning system and urban planning, and solve existing problems in urban planning [5].

Natural resources are the foundation of human survival and development, and integrating the land classification system for national spatial planning is an objective requirement for achieving unified management of natural resources. Land space is a regional space that carries human production and life, an important material foundation for human survival and development, and an important production factor for national economic and social development. Strengthening and improving natural resource management and improving territorial spatial planning not only meet the needs of China's social development, but also promote the coordination of spatial planning and economic development, thereby ensuring the health and stability of Chinese society [6].

2. The Inherent Connection and Necessity of Coordination and Integration between Natural Resource Asset Management and Land Spatial Planning

2.1. The Inherent Connection

The land spatial planning work carried out in the new era is different from the past. In addition to ensuring human living space, promoting urbanization process, and achieving reasonable utilization of land resources, it is also necessary to effectively manage and optimize the allocation of all natural resources in the planned area. This means that land spatial planning work plays an important role in promoting natural resource asset management and can enhance the asset value of different resources. Spatial planning affects the quantity of resources and environment, and the quantity of resources and environment determines the structure of spatial planning. Scientifically determining the scale of resources and environmental capacity, conducting spatial planning reasonably, and improving spatial integrity can improve and expand the foundation of resources and environment in land planning. When conducting national spatial planning, it is necessary to ensure the integrity of the ecosystem and minimize losses and damage. This requires reasonable regulation of the use of different spaces and restrictions on corresponding development and utilization activities to avoid encroachment or destruction of ecological spaces. At the same time, the ecological environment needs to be treated and repaired to ensure a safe haven for diverse organisms and ensure the survival of ecological spaces. Natural elements in different regions can be analyzed, unreasonable management methods can be adjusted in a timely manner, and asset management can be implemented based on the concept of sustainable development (as shown in Figure 1) to reduce the impact of human activities on natural resources.

From the perspective of land as a special resource attribute, its economic value is reflected in the relationship between the actual occupation, development, utilization, and output of land by land users, as well as the protection of the land ecological environment. The concept of ecological civilization should be deeply integrated into national spatial planning as a fundamental part of the basic ideas for the development, protection, and adjustment of national spatial development. Constructing a reasonable utilization pattern of natural resource capital structure, injecting more ecological assets into the national spatial planning system, and having a significant impact on this is a beneficial embodiment [7].

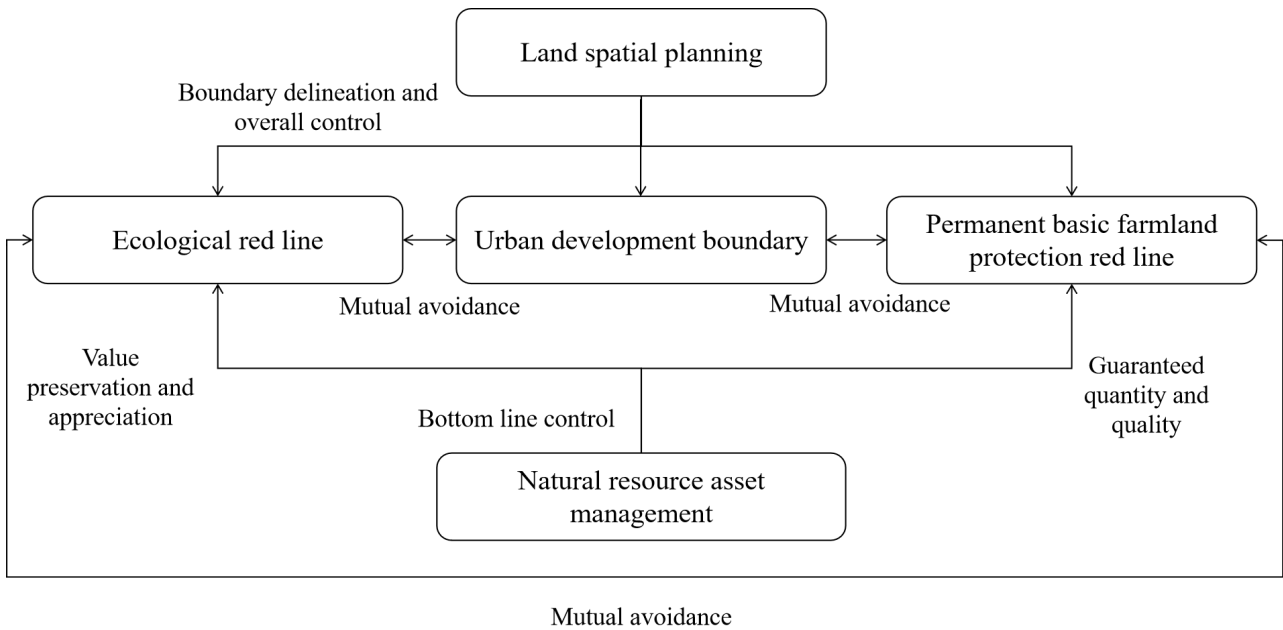


Figure 1 Land spatial planning

2.2. Necessity

The motherland is the homeland of the people, and only by utilizing land reasonably can we ensure the well-being of the people and social development. Land planning must take into account the natural environment, actual socio-economic development, and future development strategies. When carrying out land spatial planning work, it is often necessary to conduct research on the natural resources contained in the developed area. Regions with abundant natural resource assets often have great development potential, which can promote the development of different industries and fields and drive regional economic progress. From the perspective of development and protection, only reasonable land layout and comprehensive planning can improve spatial utilization efficiency and ensure the well-being of the people. China has always emphasized the implementation of refined management of relevant natural resources in its land spatial planning work, which requires the development department to clarify the resource status within the planning area, and to develop more scientific and reasonable planning plans based on existing resources and future development directions, so that the local area can not only obtain economic benefits, achieve significant development, but also maintain a unique ecosystem, We also need to ensure the maximum utilization of all natural resources in the region, and even if they are not needed, there should be room for preservation and appreciation [8]. In particular, the land planning stipulates three control lines, representing the red line ecological protection, urban development boundary and permanent basic farmland, which are the most important regional planning.

Land, as the basic material support for human survival and development, has been regarded as a fundamental element for human survival and development since its inception. With the continuous development of human society, the demand for land in economic and social life continues to grow. The significance of natural resources to humanity is self-evident. Only by utilizing natural resources reasonably can we ensure the true development and life of humanity. If natural resources are consumed indiscriminately, it will cause damage and depletion of ecological balance, rapid depletion of resources, and rapid deterioration of the environment, which is a disaster for animals and plants [9].

3. Strategies for Promoting the Coordination of Natural Resource Asset Management and Land Spatial Planning

3.1. Establish A Global Awareness and Fully Consider the Development Landscape

When implementing national spatial planning, it is necessary to establish a global awareness,

combine the latest requirements, and predict the scale of the centralized construction area using the method of "current situation+management+increment+flow", with a focus on the ecological function of the developed space. In addition to ensuring the planning effect and the daily use of the developed space, attention should be paid to its ecological value [10]. With the establishment of the Ministry of Natural Resources, all natural resources are concentrated under one department for highly centralized management, leading to a comprehensive and systematic restructuring and transformation of China's natural resource asset management work. To promote the construction of ecological civilization in the new era, we must adhere to the six principles of "mountains, rivers, forests, fields, lakes, and grasses are a community of life". The focus of the "community of mountains, rivers, forests, fields, lakes, and grasses" lies in the "community", which reflects a highly generalized systematic and holistic thinking, forming the three major circles of natural resource management (as shown in Figure 2). This fully reflects the interdependent, coexisting, and harmonious cycle integration relationship of various natural elements; The outermost layer is a comprehensive system of material and energy flow and circulation. In management work, protection should be the premise, combined with national development and market demand, and systematic, holistic, coordinated, and comprehensive ideas and methods should be used to ensure the orderly flow and sustainable development of natural resources.

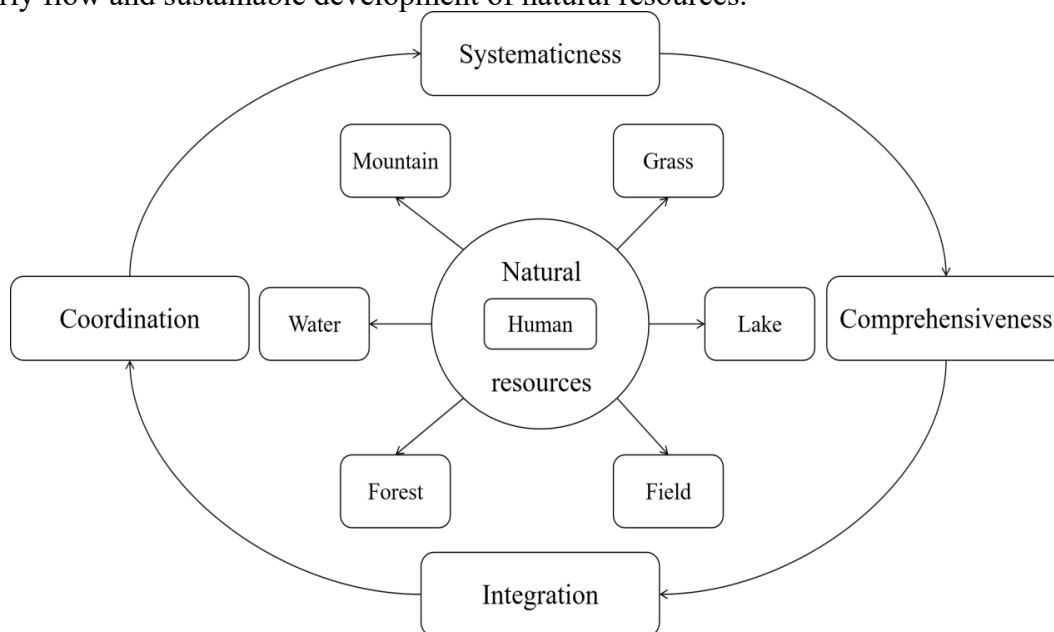


Figure 2 Three major circles of natural resources

3.2. Coordinate the Safety and Development of Land Resource Protection Work

In the work of territorial spatial planning, protecting land resources is the most fundamental principle, and this is also an important measure to strengthen the management of natural resource assets. Different spaces have different uses, so in specific planning, regulatory mechanisms should be adhered to to ensure the rational utilization of all natural resources. For the work of national spatial planning, it is also necessary to establish and improve corresponding work systems, creating favorable conditions for the utilization, preservation, appreciation, and other aspects of natural resources, in order to promote the smooth progress of this work. All government departments should strengthen coordination, communicate and exchange on the basis of doing their own work well, and continuously improve natural resource management and land use planning. Only in this way can land resources be more effectively utilized, resource allocation be optimized, the quality of life of residents be improved, and the economic and social benefits of urban planning be steadily improved. To restructure and integrate the current national land planning system, it is necessary to clarify the permissions of different entities and ensure the correct differentiation of planning methods between upper and lower levels. When conducting top-level planning, relevant departments must maintain sufficient planning flexibility.

4. Conclusions

In the context of development in the new era, there is still a need for relevant departments to conduct in-depth research on the relationship between natural resource asset management and land spatial planning, establish a global awareness, adhere to the scientific development concept, resolve conflicts with the principle of seeking truth from facts, and promote the orderly development of related work. There is a close relationship between natural resource assets and national spatial planning, and it is necessary to achieve an organic connection between the two in order to become a key factor in the development and utilization of natural resources and the enhancement of national spatial planning in the new era. The establishment of the national spatial planning system has pointed out the direction for China's spatial development, which is not only conducive to achieving sustainable development of urban and land resources in China, but also promotes urbanization construction in China and improves the utilization rate of land resources. The coordination between the national spatial planning system and natural resource asset management still faces daunting challenges. The construction and quantitative expression of a scientific and reasonable logical framework and indicator system for evaluating the carrying capacity of resources and environment, as well as the suitability of national spatial development, are the key to urban and county land spatial planning. At the national level, efforts should be made to coordinate national spatial planning with national socio-economic development planning, while urban planners should break away from the engineering and technical level, making planning truly a tool for solving social problems and improving the quality of development. Only by taking measures of land planning and comprehensive management of natural resources can social development be achieved. In order to promote the coordinated development of the two, it is necessary to take effective measures to balance their development while doing a good job in management and planning, in order to lay a solid foundation for the rational development and scientific utilization of China's land resources.

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