

Study on Ecological Restoration and Green Development Strategy of National Nature Reserves

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Abstract. Natural ecological protection is one of the important tasks of ecological civilization construction. Since the establishment of the first nature reserve in China in 1956, the construction of nature reserves has been continuously developed and achieved great achievements. Both the number of existing nature reserves and the area of protected areas have been among the highest in the world. China's ecological civilization construction work centered on nature conservation. However, we must be soberly aware that in the process of the development of nature reserves in China, there are still some bottlenecks in the management system, system and technology that must be solved, which seriously restricts the healthy development of the nature reserve industry. Starting from the analysis of the status quo and problems of the classification and division of nature reserves at home and abroad, this paper starts with the general ideas, basic principles and work priorities of China's nature reserve system and integrated management system construction, and systematically expounds the classification and protection level of China's nature reserves. Functional zoning and management objectives, and proposed a new design scheme for “type division, management grading and functional zoning” of protected areas, and proposed to establish “supervisable, reportable, and early warning” classification, grading and zoning management of protected areas. The system aims to promote the healthy development of China's nature reserves.

Introduction

The goal of the construction of the nature reserve system and the comprehensive management system is to thoroughly implement the scientific development concept, regulate people's conscious respect for natural laws, cherish nature, actively participate in nature conservation, and achieve national ecological security and ecological environment. It is necessary to focus on solving the problems of harmonious development between man and nature, contradiction between nature protection and economic development, national ecological security and conflicts of interest in the survival and development of residents in protected areas, and strive to achieve comprehensive, coordinated development and sustained prosperity of nature, economy and society. The construction of nature reserves in the country needs to form a nature reserve system, management system and economic security system with reasonable layout, complete types, complete functions, standardized construction and high efficiency in the national space. Since the establishment of the first nature reserve in 1956, the construction of nature reserves in China has continued to develop. By the end of 2013, a total of 2,697 nature reserves of various types and levels were established across the country, with a total area of approximately 146.31 million hm². Among them, the land area is 141.75 million hm², accounting for 14.77% of the national land area, which has been in the forefront of the world both in quantity and in area, laying the foundation for ecological civilization construction with nature protection as the core. basis. It can be expected that the construction and standardized management of nature reserves will play an important and irreplaceable support role in the national strategy of building ecological civilization and beautiful China. However, we must be soberly aware that in the development of nature reserves in China, there are still bottlenecks that must be resolved, such as management systems, management mechanisms, legal systems, etc. Seriously restricting the healthy development of China's nature reserves is also a serious challenge

for nature conservation science and technology.

General ideas for the construction of nature reserve system and comprehensive management system

The protection of natural resources, ecosystems and species must fully consider the behavioral scale of the protected object and the spatial scale of its changing process. It can only be protected if the protected area is sufficiently larger than the protected object's behavior and the spatial scale of its changing process. At present, China's nature reserves are dominated by single and isolated nature reserves, and adjacent or similar protected areas are subordinated to different departments. The neglect of the links between the nature reserves makes it difficult to protect the overall protection of the protected areas. effect. In the face of this state, from the relationship between the protection of nature and regional development, the establishment of a national or regional nature reserve network is a strategic choice. That is to fully analyze the national strategic natural resources, ecosystems, geospatial patterns of biological species diversity, and inter-regional interconnections, with the aim of serving the country's natural protection, aiming at the optimal layout of the entire land space, and following biogeography, Vegetation geography, regional ecological theory of spatial and temporal niche of wild animals, constructing a natural ecological protection zone and a natural ecological protection zone as a strategic skeleton, with a comprehensive natural ecosystem protection zone as the core backbone, protected by a single endangered species The district is the basic point, and the national nature reserve network system with the regional special function protection area as the auxiliary point seeks to maximize the natural protection function and benefit of the whole network system, optimize the management system, and minimize the protection cost.

The holistic theory of ecosystems states that the various biological and environmental elements of an ecosystem are indivisible organic wholes, and the structure of the ecosystem determines the part of the ecosystem and its overall function. The current nature reserve refers to a large nature reserve across the administrative boundary line consisting of a nature reserve with the same protection object in a geographical unit. Under the guidance of this understanding, the area of unified planning, construction and management is implemented. Coupled with the fragmentation of China's administrative management system and the division of responsibility of natural protection objects, the design of nature reserves is usually based on the protection of a single object, ignoring the integrity and ecology of the ecosystem. System material circulation, bio-food network systems, and biological-environment interactions. This nature reserve, which protects a single animal or plant type, is not only a single management measure, but also has low management efficiency and is more difficult to achieve the desired protection objectives. Therefore, it is necessary to actively promote the development of nature reserves in a key area from single function (single animal or plant type) to comprehensive protection function based on the scientific concept of ecosystem integrity, and promote the construction of comprehensive natural ecosystem protection areas. Promote the development and improvement of the national nature reserve network system with the comprehensive natural ecosystem protection zone as the core.

China's long history of national history and culture, the status of biological resources and the complex geographical environment determine the important position and role of China's biodiversity conservation in the world. At the same time, maintaining the level of biodiversity is also an important prerequisite for achieving ecological balance. The level of species in the nature reserve directly affects the stability of the ecosystem. Therefore, the fundamental way to protect biodiversity is to protect the environment in which the organism depends, and to crack down on activities that damage the environment, such as deforestation and random discharge of pollutants. Set up shelters for endangered species in natural reserves, and regularly monitor the types and quantities of organisms in the area to ensure that species remain at a stable level. At the same time, the ecological environment protection and construction of the protected areas are fully integrated into the legalized management system of our country, and the level of biodiversity is further maintained at the level of laws and regulations, so that the ecosystem is in a dynamic balance.

Nature Reserve Sustainable Development Strategy

As a nature reserve, it is necessary to evolve in a natural state, so human activities must be less. In the process of natural evolution, the role of natural forces is fully utilized to save money and effort. Therefore, the goal of nature reserves is to control the scope and depth of human activities, so that interpersonal relations and human relations are in a virtuous cycle. The spatial extent, time phase and depth of human activities should vary in different regions and in different stages of sustainable development, but the general principle is that human activities must be limited to the extent that the environment and natural resources can withstand. The nature reserve must establish a system for collecting, processing, and analyzing the environment and natural resources, improve the level of biodiversity research and monitoring, and serve the environment and natural resources network of the nature reserve. This is not only a way to generate income, but also a demonstration. The data necessary for the evolutionary succession of nature reserves. The management agencies mainly focus on monitoring, law enforcement and management, which are of an administrative nature. The revenue-generating institutions mainly focus on tourism revenue, service fee income of high-tech parks, and network fee income and data fee income of environmental and natural resource data. The propaganda of protected areas, the training of personnel, and the return of compensation for land use fees are of a corporate nature. The management agency supervises and enforces the income-generating institutions in accordance with relevant laws, policies and regulations.

From a spatial perspective, to achieve sustainable protection and development, the nature reserve must be functionally zoned into core areas, buffer zones and transition zones. The core area provides complete protection for most of the important elements to be protected by the protected area. Except for patrolling and non-destructive research work, the core area prohibits any activity. Conduct small-scale, non-interfering, controlled ecotourism activities wherever possible. The buffer zone, also known as the Science and Education District, is a buffer zone in the core area and serves as a venue for scientific research, education and training, and popular science tourism. The transition zone, also known as the experimental zone, is an experimental base for researching the relationship between humans and nature. In areas with convenient transportation and accessibility, the fixed production area is designated for the purpose of not destroying natural resources and natural landscapes. The masses make rational use of the resources of wood and bamboo to solve the problems of production and life of the people in the area. However, the division of these areas is not static and must be artificially changed according to changes in natural resources and the environment and socio-economic, cultural and ecological needs in the region, but there is a premise that such changes must have long-term planning. Does not affect the needs of future generations as a standard. In terms of time, in order to achieve sustainable protection and development, on the basis of environmental and natural resource protection, different levels of development strengths and measures are adopted according to the needs of different time periods, which can be generally divided into three stages.

There are many kinds of nature reserves in China, such as wide variety and various forms, and the administrative departments of the protected areas have considered the law enforcement for their own interests, resulting in repeated bans on poaching and piracy. Therefore, it is imperative to strengthen the legal system of protected areas. The environmental pollution and ecological damage losses of the nature reserve will be included in the national economic accounting system, and the economic policy system for ecological protection of the protected areas and the ecological compensation mechanism will be established. Formulate laws related to biosafety, soil pollution, genetic resources and ecological protection in nature reserves, and implement regulations such as ecologically fragile area assessment, nature reserve management assessment, ecological environment quality assessment and ecotourism management. Increase the investigation and punishment of major ecological damage cases in protected areas. On the basis of formulating corresponding laws and regulations, we must also increase the propaganda of the ecological environment protection of nature reserves, advocate the construction of ecological civilization, and actively create a public opinion atmosphere that conserves natural resources and protects the ecological environment, and raises the awareness of ecological protection of the whole people. .

Conclusion

With the development of the times, the impact of human activities on the natural environment has gradually increased. In this process, the establishment of nature reserves can effectively alleviate the ecological environment in nature reserves, and further promote the region and the nature reserve. Development is of great significance. Therefore, in the process of establishing and managing nature reserves, it is necessary to establish an all-round monitoring system, and to distinguish and manage the natural environment of the nature reserve, to minimize the impact of human activities on nature reserves, and to realize people and nature. Harmony between the two. In the process of management of nature reserves, avoid as many as possible across the board, and adopt different management methods for different regions.

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