

The Improvement and Internationalization of China's Biosafety Diversity Legal System from the Perspective of the "Belt and Road Initiative"

Xianghe Lu*

School of Qingdao No.2 Middle School, Shandong, China

*15523383797@qq.com

ABSTRACT

The protection of biosafety diversity is of great importance on a global scale, and plays a key role in maintaining ecological balance and promoting sustainable development. The "Belt and Road Initiative" has brought new opportunities and challenges to the protection of biosafety diversity, and the legal system of biosafety diversity in China should be adjusted and improved accordingly. Reviewing the development process and current situation of China's biosafety diversity legal system, it can be concluded that there are problems and deficiencies in the current legal system, such as the imperfect legal system, insufficient law enforcement, and insufficient international cooperation, and measures should be taken to strengthen the construction of the legal system, increase law enforcement, and strengthen international cooperation. At the same time, we should also pay attention to the path of internationalization of China's biological safety diversity legal system, including active participation in international negotiations and cooperation, strengthening international exchanges and cooperation, and promoting the improvement of the international legal system.

KEYWORDS

The Belt and Road; Biosafety Diversity; Legal System; Ecological Protection; International Cooperation; Legal System Construction.

1. INTRODUCTION

With the continuous advancement of globalization, international cooperation and exchanges have become increasingly frequent, and the links between countries in the fields of economy, culture, science and technology have become increasingly close. In this context, China has proposed the Belt and Road Initiative, which aims to strengthen economic cooperation and people-to-people exchanges among countries along the routes through infrastructure construction, trade and investment, and cultural exchanges, so as to achieve common development and prosperity. This initiative has not only brought unprecedented development opportunities for China and countries along the routes, but also had a profound impact on the stable growth of the global economy and the deepening of regional cooperation. However, while promoting economic development, how to protect the ecological environment, especially biodiversity, has become an urgent problem to be solved.

The concept of biodiversity was first proposed by American biologist Raymond in his book *A Different Kind of Country* in 1968, which combined two words biology and diversity, namely biological diversity [1]. Later, Wilson, an American biologist, gave a relatively clear definition of biodiversity in his book *Biodiversity*. Chinese scholar Ma Ke Ping defines it as: biodiversity is the sum of the ecological complex formed by organisms and their environment and the various ecological

processes related thereto, as well as the complex ecosystem diversity and landscape diversity formed by organisms and their living environment [2]. In 2011, the Ministry of Environmental Protection of China (now the Ministry of Ecology and Environment) proposed the definition of biodiversity: the ecological complex formed by organisms (animals, plants and microorganisms) and the environment, as well as the sum of various ecological processes related to it, including the three levels of species, genes and ecosystems [3]. However, due to the continuous expansion of human activities and the intensification of environmental pollution, biodiversity has already faced serious threats, a large number of species in the world are on the verge of extinction, and the speed of biodiversity loss has exceeded the speed of natural recovery.

From the perspective of legal system, biosafety diversity protection needs to be supported by a sound legal system. However, there are still some problems in China's biosafety diversity legal system, such as imperfect legal system, ineffective enforcement of legal system and insufficient international cooperation. These problems restrict the implementation of biosafety diversity protection, and also affect the smooth implementation of the Belt and Road Initiative. Therefore, improving the legal system of biosafety diversity in China and promoting its internationalization are urgent problems to be solved.

2. CURRENT SITUATION AND CHALLENGE OF LEGAL SYSTEM OF BIOSAFETY DIVERSITY IN CHINA

2.1. Evolution of Biosafety Diversity Legal System in China

Since the reform and opening up, China's legal system for the protection of biosafety diversity has experienced a process from initial establishment to gradual improvement. In the early days, China mainly adopted and implemented a series of environmental protection laws and regulations, such as the Environmental Protection Law and the Wildlife Protection Law, to indirectly protect biodiversity. These laws and regulations provide the basic legal framework and basis for the protection of biodiversity.

With the deepening understanding of the importance of biodiversity protection, China has begun to formulate more specialized and refined laws and regulations on biodiversity protection. For example, the signing and implementation of the Convention on Biological Diversity marks a new stage in the legal system of biodiversity protection in China. At the same time, the state has also introduced a series of policies and measures, covering the three aspects of species, ecosystems and genetic resources, among which the objects of species protection are mainly domestic wild animals and plants and invasive alien species. The objects of ecosystem protection mainly include scenic spots, nature reserves, Marine reserves, wetlands, forests, grasslands, etc. The objects of genetic protection mainly include new plant varieties, traditional Chinese medicine varieties, domesticated animals and crop germplasm resources and so on. At the same time, the protection and management of biodiversity have been strengthened, such as the biodiversity conservation strategy and action plan, and the construction plan of nature reserves.

2.2. The Framework and Main Contents of the Current Legal System

At present, the framework of China's biosafety diversity legal system has been basically formed, which mainly includes the following aspects: basic laws, such as the Environmental Protection Law, the Wildlife Protection Law, the Forest Law, etc., which provide the basic legal guarantee for the protection of biodiversity; Special laws, such as the Nature Reserve Regulations, the Biosafety Act, etc., which set out specific conservation measures for specific areas or issues of biodiversity; Policy measures, including biodiversity conservation strategy and action plan, ecological compensation

mechanism, biodiversity monitoring and assessment system, etc., these policy measures provide specific guidance and support for biodiversity conservation.

In the main content, China's biosafety diversity legal system covers the protection, utilization, management and other aspects of biodiversity. Among them, protection is the core, including in situ protection and ex situ protection two ways. In situ protection is mainly through the establishment of nature reserves, forest parks and other protected areas to protect the habitat and living environment of organisms; Ex situ conservation is the removal of endangered species from their original habitat for conservation or artificial breeding.

2.3. Effectiveness and Inadequacy of the Legal System in Protecting Biodiversity

2.3.1. Remarkable Progress Has been Made in Building a System of Protected Areas

Up to now, China has established a large number of nature reserves with rich types, including forests, wetlands, grasslands, deserts and other ecosystems. These protected areas provide a safe habitat and living environment for many rare and endangered species. For example, the number of wild Siberian tigers and wild leopards in the Northeast Tiger and Leopard National Park has steadily increased, and the total wild population of giant pandas has also achieved significant growth.

2.3.2. A Biodiversity Monitoring and Assessment System Has been Established

China has initially established a biodiversity monitoring and assessment system, through regular monitoring and assessment, can timely understand the dynamic changes of biodiversity, to provide a scientific basis for effective protection measures. For example, a digital monitoring system for biodiversity has been established in Lishui, Zhejiang Province, and other places to automatically generate biodiversity evaluation indexes and monitoring reports, effectively improving the efficiency and accuracy of biodiversity monitoring.

2.3.3. The Pertinence and Flexibility of Laws and Regulations are Insufficient

In our country, the rules related to biodiversity protection are mainly in administrative regulations and national policies. Many laws are general in content but not operational. For example, Article 30 of the Environmental Protection Law provides for the protection of biodiversity, ecological security and other principles, but does not make specific provisions. In addition, many of the laws drafted by the executive branch are highly controversial, and the usual practice of the legislature is to avoid contradictions and deal with some legal provisions in a vague way [4]. Some existing laws and regulations lack sufficient pertinence and flexibility in biodiversity protection, which is difficult to meet the actual needs of biodiversity protection. For example, the demarcation and management of some protected areas are unreasonable, which leads to poor protection effect. At the same time, there is a lack of effective legal regulation for new ecological problems such as the invasion of alien species.

2.3.4. Enforcement of Regulations Needs to Be Strengthened

China's management of alien species invasion involves more than 10 departments related to ecological environment, rural agriculture, natural resources, etc., the main body is many and scattered, the function of overlapping, unclear responsibilities, the information exchange between departments is not smooth, easy to cause the waste of law enforcement resources, difficult to hold accountable. For example, regarding the introduction of exotic animals and plants, the General Administration of Customs, the General Administration of Market Supervision and Administration and the Health Commission all have quarantine functions [5]. This will inevitably cause large and small contradictions due to the different implementation standards of various departments, and will also affect the specific and effective development of law enforcement work.

2.3.5. The International Cooperation Mechanism is Not Perfect

Although China has participated in a number of international cooperation mechanisms for biodiversity conservation, there are still some deficiencies and difficulties in cooperation with the international community. For example, in the formulation of international biodiversity conservation policies and standards, China's voice and influence need to be improved; At the same time, the cooperation mechanism with countries along the Belt and Road on biodiversity conservation is not yet perfect, and communication and coordination need to be strengthened.

2.3.6. The Legal System is Not Sound

A series of existing legal systems related to biodiversity conservation in China still lag behind practice in some aspects. For example, invasive alien species are latent and seriously harmful, destroying local biodiversity, causing incalculable economic losses, and endangering human health. The existing laws and regulations on the prevention and control of alien species invasion are scattered, there is no special law, and some legislative documents are less effective [6]. In addition, the legal system on wetland protection, microbial protection, wild plant protection, biosafety and other aspects is also relatively lacking, and needs to be further improved.

2.4. Challenges Faced

In the process of advancing the Belt and Road Initiative, China's biosafety diversity protection is facing new challenges. First of all, activities such as infrastructure construction and resource exploitation may cause damage to the ecological environment, which in turn affects the protection of biodiversity. This requires us to pay more attention to the protection of the ecological environment and the maintenance of biodiversity while promoting the construction of the Belt and Road. Secondly, there may be contradictions between ecological environment protection and biodiversity protection in the process of economic development in countries along the belt and road, and it is necessary to seek balance and coordination. This requires us to strengthen international cooperation and exchanges and jointly formulate policies and measures to protect biodiversity. In addition, with the intensification of global climate change, environmental pollution and other problems, the pressure of biodiversity protection is also increasing. This requires us to strengthen scientific research and technological innovation, and improve the capacity and level of biodiversity conservation.

3. IMPACTS OF THE BELT AND ROAD INITIATIVE ON BIODIVERSITY

The Belt and Road Initiative, as an important platform to promote global economic development, has not only had a far-reaching impact in the economic field, but also demonstrated its unique value and role in ecological and environmental protection, especially biodiversity protection. First of all, the Belt and Road Initiative has built a global consensus on biodiversity conservation by building a platform for cooperation. The Ministry of Ecology and Environment of China, together with Chinese and foreign partners, launched the Belt and Road International Alliance for Green Development, which is committed to working with co-developing countries to achieve the 2030 Sustainable Development Goals, and has set up ten thematic partnerships, including "biodiversity conservation and ecosystems", to jointly carry out exchanges on biodiversity conservation and other activities. This initiative has strongly promoted the cooperation and exchanges among countries in the field of biodiversity protection, and promoted the development of the global biodiversity protection cause. Second, the Belt and Road Initiative has enhanced information sharing and provided scientific data support for biodiversity conservation. We will actively build the "Belt and Road" ecological and environmental protection big data service platform, collect and share national environmental laws, regulations and standards, and provide data services and decision-making support for governments, enterprises, groups and individuals. The sharing of these data and information helps to better understand and study the status quo of biodiversity and its changing trend, and provides a scientific

basis for formulating effective conservation measures. Moreover, the Belt and Road Initiative has jointly improved biodiversity conservation through capacity building. The Ministry of Ecology and Environment is implementing the Green Silk Road Envoys Program, working with co-developing countries to strengthen environmental protection capacity building and train environmental protection officials, experts and technicians. This strengthening of capacity building has enabled more countries to have the ability and conditions to independently carry out biodiversity conservation work, and further promoted the global biodiversity conservation work.

In addition, the Belt and Road Initiative has promoted green recovery and shared the concept and practice of ecological civilization. At a special moment when the world is fighting the COVID-19 pandemic and promoting green economic recovery, the Chinese government, relying on the bilateral and multilateral cooperation and exchange mechanism for green development under the Belt and Road Initiative, has shared the concept and practice of ecological civilization, especially its experience in drawing red lines for ecological protection and establishing a national park system. At the same time, it pays attention to the impact of infrastructure construction projects on biodiversity conservation and other aspects, and gradually promotes environmental risk assessment and the development of green solutions. This not only helps to promote the green recovery of the economy, but also provides new ideas and ways for the protection of biodiversity.

4. THE PATH OF PERFECTING THE LEGAL SYSTEM OF BIOSAFETY DIVERSITY IN CHINA

In order to scientifically and effectively protect our biological resources and ecological environment, the law is not in biodiversity protection.

Available or lacking means, the establishment of a sound legal system to protect biodiversity is essential. Legal laws of our country.

In the process of the construction and gradual improvement of the regulatory system, biodiversity is becoming an indispensable content [7], but the establishment of systematic and sound legislation and a sound legal system can not be completed in a short time, and must be patient, planned and step-by-step to improve.

4.1. Improve the Legislative System

As China attaches more and more importance to biodiversity protection, there are more and more laws and regulations related to biodiversity protection, and it is inevitable that there is a mismatch between the quality and quantity of legislation, which makes China's biodiversity protection laws fragmented and decentralized, resulting in a lack of relevance and overall goal among various fields of biodiversity protection legal regulation [8]. Formulate a special Biodiversity Protection Law to clarify the principles of protection, the management system and the species covered, so as to make China's biodiversity protection law more systematic and standardized, avoid the tendency of each department's legislation to only meet its own work needs, and establish a good international image of a strong country in biodiversity protection, from the initial participant to the current leader. It plays a leading role in global biodiversity conservation efforts.

4.2. Improve the Operability and Supervision of the Legal System

In the legislative process, the actual needs of biodiversity protection should be fully considered to ensure the pertinence and operability of the legal system. For example, on the issue of invasive alien species, the introduction of alien species without permission should be clearly prohibited, and strict legal responsibilities and penalties should be stipulated. At the same time, effective implementation and regulation of the legal system is key to the conservation of biodiversity. It is necessary to establish

and improve the law enforcement mechanism for biodiversity protection, and strengthen the investigation and punishment of illegal acts. At the same time, we will strengthen supervision to ensure that all legal systems are effectively implemented.

5. PROMOTE THE INTERNATIONALIZATION OF THE BIOSAFETY DIVERSITY LEGAL REGIME

5.1. Participating in the Formulation of International Conventions and Laws

China should actively participate in and accede to international conventions and agreements related to biosafety diversity, such as the Convention on Biological Diversity and the United Nations Framework Convention on Climate Change, and earnestly fulfill its obligations and responsibilities under the conventions. We will actively participate in the revision and improvement of international conventions, put forward constructive comments and suggestions in light of China's actual conditions, and promote the development of international conventions in a more scientific and rational direction. At the same time, we will cooperate with international organizations and other countries to jointly develop and improve international standards in the field of biosafety diversity, such as biodiversity assessment standards and genetic resources utilization standards. Through diplomatic channels, international conferences and other means, we will actively promote the international standards that China participated in, and improve our influence in the field of international biosafety diversity protection.

5.2. Strengthen Cooperation and Education and Training on Cross-Border Biodiversity Conservation

Establish cooperation mechanisms with other countries on biodiversity protection, jointly study and formulate cooperation plans, and strengthen cooperation and exchanges in the field of cross-border biodiversity protection. In response to the issue of cross-border biodiversity protection, joint actions should be carried out to jointly combat illegal hunting, illegal trade and other activities, and protect the integrity and safety of biodiversity resources. At the same time, the International biosafety Diversity Law Seminar is held regularly, inviting domestic and foreign experts, scholars and government officials to discuss the internationalization of the biosafety diversity legal system. Strengthen cooperation with international organizations and other countries, carry out biosafety diversity legal training programs, and improve the professional quality and internationalization of Chinese legal personnel.

5.3. Promote Innovation and Development of the International Biosafety Diversity Legal Regime

In view of the biosafety risks brought by new technologies such as gene editing and synthetic biology, China actively participates in the formulation and revision of international legal systems, and puts forward legal rules and standards that adapt to the development of new technologies. China will strengthen cooperation and exchanges with the international community in the field of climate change, jointly address the impact of climate change on biodiversity, and promote the formulation of a legal system for the protection of biosafety and diversity that ADAPTS to climate change.

6. CONCLUSION

Biosafety diversity is not only an important part of nature, but also the basis for human survival and development. Under the promotion of the "Belt and Road Initiative", the cooperation and exchanges between China and countries along the route in biosafety diversity protection are increasing, which

puts forward higher requirements for the improvement and internationalization of China's biosafety diversity legal system. This paper analyzes the present situation and existing problems of the legal system of biosafety diversity in China. Although China has established a relatively complete legal system for biosafety diversity, there are still some problems and challenges in practice, such as imperfect laws and regulations, insufficient law enforcement, and insufficient international cooperation. These problems not only affect the effectiveness of the protection of biosafety diversity in China, but also restrict the internationalization process of the legal system of biosafety diversity in China. In response to these problems, this paper puts forward some countermeasures and suggestions to improve the legal system of biosafety diversity in China. Specifically, it includes strengthening the construction of laws and regulations, strengthening law enforcement, and strengthening international cooperation.

As the global understanding of biosafety diversity protection continues to deepen, the international community's demand for legal rules and standards for biosafety diversity protection will also continue to increase. China should seize this opportunity, actively participate in international cooperation and exchanges on biosafety diversity protection, promote the formulation and improvement of international legal rules and standards on biosafety diversity protection, and enhance China's influence and discourse power in the field of international biosafety diversity protection. At the same time, the protection of biosafety diversity in China is faced with severe challenges. With the influence of population growth, economic development and environmental change, China's biosafety diversity is facing great pressure. Therefore, China needs to further strengthen the improvement and enforcement of the legal system of biosafety diversity, strengthen the attack on the destruction of biosafety diversity, and protect our precious biological resources.

Finally, China should strengthen cooperation and exchanges with the international community to jointly address the challenges faced by the protection of global biosafety diversity. By strengthening cooperation and exchange, China can learn from international advanced experience and technological means to improve the capacity and level of biodiversity protection in our country. At the same time, China can also showcase its achievements and experience in biosafety diversity protection to the international community, and make greater contributions to the global cause of biosafety diversity protection.

REFERENCES

- [1] Zhu Hongsu, Qiu Jie. Biodiversity conservation [M]. Guiyang: Guiyang Science and Technology Press, 2016.
- [2] Ma Keping. On the concept of biodiversity [J]. Biodiversity Science, 1993(01) : 20.
- [3] Zhang Huiyuan et al. Biodiversity Conservation and Green Development in China [M]. Beijing: Science Press, 202:2.
- [4] Sun Youhai. Study on the legal Guarantee of Mainstreaming Biodiversity Conservation. Journal of China University of Political Science and Law, 39-2019 (5) : 49.
- [5] Qin Tianbao, Liu Tongtong. Legal protection of biodiversity under the strategy of ecological civilization [J]. China Ecological Civilization, 2019(02) : 28.
- [6] Su Yunfang. Legal regulation of alien species invasion in the context of risk prevention [J]. Resource Development & Market, 2021(03) : 275.
- [7] ZHANG Fengchun, Liu Wenhui, Li Junsheng. Status and countermeasures of biodiversity mainstreaming in China [J]. Environment and Sustainable Development, 2015(02) : 16. (in Chinese).
- [8] Qin Tianbao. On the systematic legal regulation of biodiversity conservation [J]. Law Forum, 2022(01) : 126.