

# A Brief Analysis of Legal Issues Regarding Forestry Carbon Sequestration Rights in China

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## Abstract

In recent years, global climate change has attracted people's attention to carbon sinks. As the world's largest developing country, China has abundant forestry carbon sink resources, which is of great significance to global carbon balance. However, the legal issues of China's forestry carbon sink rights have not received sufficient attention, which not only affects the rational utilization of carbon sink resources, but also restricts China's development in the global carbon market. Therefore, this paper aims to explore the legal issues of China's forestry carbon sequestration rights and provide legal support for China to play a better role in the global carbon market; at the same time, it also explores the legal issues of China's forestry carbon sequestration rights, so as to provide reasonable management and global Provide legal support for carbon emission reduction undertakings.

**Keywords:** Forestry Carbon Sequestration Rights; Legal Issues; China

## Introduction

The earth is a shared habitat for mankind, and it is the common mission of all countries to maintain the balance of nature and promote sustainable development. With the rapid growth of global economy and population, the excessive consumption of fossil fuels has led to a significant increase in greenhouse gas emissions, resulting in a series of environmental problems such as global warming, climate change, and ecological degradation. To address these challenges, the international community has been actively exploring effective ways to reduce carbon emissions and mitigate climate change (United Nations Framework Convention on Climate Change, 2015).

As the largest developing country in the world, China is facing the dual pressure of economic development and environmental protection (Wang & Zhu, 2020). In recent years, China has made great efforts to promote green and low-carbon development, and has achieved remarkable results in energy conservation and emission reduction (Ministry of Ecology and Environment of the People's Republic of China, 2020). However, with the increasing energy demand and the urgency of addressing climate change, merely controlling energy consumption is no longer sufficient. It is necessary to explore more proactive and flexible emission reduction measures, such as carbon sequestration through forestry (Griscom et al., 2017).

Forestry carbon sequestration refers to the process of absorbing and storing atmospheric carbon dioxide through forest ecosystem (Pan et al., 2011). It is a natural and cost-effective way to mitigate climate change and has great potential for application (Bastin et al., 2019). In China, forestry carbon sequestration has been given high priority in the national strategy of ecological civilization construction and has been included in the national plan for tackling climate change (State Council of the People's Republic of China, 2021). However, the

development of forestry carbon sequestration in China is still in its infancy, facing many challenges such as unclear property rights, imperfect market mechanism and lack of incentive policies (Yang & Ji, 2019). Therefore, it is of great theoretical and practical significance to study the legal issues of forestry carbon sequestration rights in China, which can provide legal guarantee and policy support for the development of forestry carbon sequestration, and contribute to China's efforts to achieve carbon neutrality and sustainable development goals (Yu & Xu, 2021).

### **Research Objective(s)**

1. Explore the legal issues of China's forestry carbon sequestration rights and provide legal support for China to play a better role in the global carbon market.
2. Discuss the legal issues of China's forestry carbon sequestration rights and provide legal support for its reasonable management and global carbon emission reduction.

### **Literature Review**

1. Research on legal issues of China's forestry carbon sequestration rights is a policy direction

In recent years, my country's measures to combat climate change have been continuously adjusted and upgraded, and the intensity has been continuously increased. Especially after the "double carbon" vision was proposed in 2020, the importance and impact of forest carbon sinks in combating climate change have been further emphasized. The proposal of the "double carbon" goal and related policy deployment provide a good opportunity to promote the development of forestry carbon sinks. Forestry carbon sink plays a key role in the "dual carbon" strategy. It not only has solid policy support, but also contains many value connotations. The forestry carbon sink project promotes sustainable forestry management methods, ensures the long-term availability of China's timber and other forest resources, and promotes sustainable resource management (Wang et al., 2021).

The important value of forestry carbon sinks in China not only involves climate change response, but also covers ecosystem protection, economic development and sustainable resource management. It is a green poverty alleviation project that improves the service value of forest ecological benefits and is an important part of the implementation of General Secretary Xi Jinping's "Forests are reservoirs, grain depots, money depots and carbon depots", a green and people-enriching project.

2. Research on legal issues of China's forestry carbon sequestration rights is forced by the situation

The development of forestry carbon sinks is forced by the situation, mainly from the pressure of China's sustainable development, the pressure of international responsibility commitments and the pressure of China's ecological environment. The development of forestry carbon sinks is a core requirement for China's sustainable development. Li Zhian and Zheng Weirong (2021) believe that building a forestry carbon sink rights system is an inevitable requirement to respond to the challenges of climate change and carbon emission reduction. Achieving the goals of carbon peak and carbon neutrality is a key strategic choice of China's central leadership and is crucial to maintaining global ecological balance, reducing the impact of climate change, and promoting sustainable development. The impacts of climate change in China are intensifying, including more frequent extreme weather events, making emissions

reduction measures particularly urgent. The development of forestry carbon sinks is a powerful measure for China to fulfill its international commitments. Wang Yu et al. (2021) pointed out that carbon sinks play a key part in China's achievement of international climate goals, highlighting forestry carbon sinks as a core strategy that helps reduce carbon emissions and achieve carbon neutrality goals. Yang Jun et al. (2021) emphasized that forestry carbon sinks, as a sustainable climate action, are of great value to China in fulfilling its international climate commitments. China's active participation in global climate governance and its proactive commitment to energy conservation and emission reduction are to transform the mode of economic development, achieve high-quality economic and social development, help enhance collaborative work with other countries, improve international image and reputation, and promote global climate action. The development of forestry carbon sinks is a strategic need to alleviate the deterioration of China's ecological environment. Building a reasonable forestry carbon sink rights system can promote forest protection and restoration, improve soil health, slow down soil loss, improve ecological quality, and ensure the stability of water resources and ecological systems.

To sum up, the important motivation for promoting the research on legal issues of China's forestry carbon sequestration rights is to address multiple pressing issues such as climate change, improving the ecological environment, fulfilling international commitments, promoting sustainable development, and meeting social needs.

3. Research on legal issues of China's forestry carbon sequestration rights is necessary for development

Forestry carbon sinks are in line with China's development needs for green development, high-quality development and sustainable development. Forestry carbon sinks are consistent with China's green development. Wang Shuai et al. (2019) discussed the contribution and mechanism of forestry carbon sinks to China's green development, and pointed out that the implementation mechanism of forestry carbon sink projects is an important measure to achieve green development goals. Zhang Li and Yang Jie (2020) discussed the synergistic mechanism between forestry carbon sink projects and green development strategies, and proposed that forestry carbon sink projects provide dual ecological and economic benefits and play a key role in green development. Forestry carbon sequestration is consistent with China's high-quality development strategy. Research on the legal issues of China's forestry carbon sequestration rights plays an important role in promoting China's high-quality development. First, it helps improve resource utilization efficiency. Research on the legal issues of forestry carbon sequestration rights can help improve the efficiency of resource utilization and ensure the sustainable use of carbon sequestration rights through reasonable management and protection of forest resources. Research on legal issues of forestry carbon sequestration rights can help reduce environmental risks and reduce the threats of natural disasters and climate change to ecosystems through reasonable management of forest resources (UNFCCC, 2016). This is crucial for high-quality development. Forestry carbon sinks are consistent with China's sustainable development strategy. A key element of sustainable development is to promote a low-carbon economy, and the forestry carbon sink project is a powerful tool to promote a low-carbon economy. In addition, forestry carbon sequestration projects usually include forest protection and restoration measures to help enhance ecological stability, protect biodiversity, and reduce soil erosion and water resource pollution. This is

closely linked to the concept of ecologically sustainable development and helps maintain ecological balance.

4. Research on legal issues of China's forestry carbon sequestration rights is a general trend

Research on the legal issues of China's forestry carbon sequestration rights plays a key role in achieving the "double carbon" goal. pass

The establishment of a legal framework will help protect and manage carbon sink rights, increase carbon sink capacity, reduce carbon emissions, and promote

move China towards a more environmentally friendly and sustainable development direction. The issue of forestry carbon sink has become a key issue that countries pay close attention to. At present, the international community mainly adopts direct emission reduction and indirect emission reduction (that is, achieved through carbon sinks) to achieve emission reduction purposes. Forestry carbon sink projects have the advantages of long-term benefits, low cost, excellent cost performance and multiple benefits. They have become China's most effective emission reduction measures and will also become a key development focus of my country's carbon neutrality strategy in the future. As global climate change issues continue to emerge, carbon sink rights play a key role in maintaining ecological balance, mitigating climate change, and promoting sustainable development. Research on the legal issues of China's forestry carbon sequestration rights has become increasingly prominent and is bound to become the focus of future academic research. The research on the legal issues of China's forestry carbon sequestration rights is a general trend, both in terms of actions to achieve the "double carbon" goal and the focus of future academic research. It is a focus and hot spot that requires continued attention and research in the future.

## Research Methodology

This section outlines the research methodology employed in this study to investigate the legal issues of forestry carbon sequestration rights in China. The research methodology is designed to systematically collect, analyze, and interpret data to answer the research questions and achieve the research objectives.

### 1、 Research Methodology

This study adopts a qualitative research approach, which is suitable for exploring complex social phenomena and understanding the perspectives of various stakeholders (Creswell & Poth, 2018). Specifically, this study employs a case study research design, which allows for an in-depth examination of the legal issues of forestry carbon sequestration rights in the Chinese context (Yin, 2018). The case study focuses on the legal framework, policy implementation, and practical challenges related to forestry carbon sequestration rights in China.

### 2、 Source of Data

The data for this study are collected from both primary and secondary sources. Primary data are obtained through semi-structured interviews with key informants, including policymakers, legal experts, forestry practitioners, and other relevant stakeholders. Secondary data are gathered from various sources, such as legal documents, policy reports, academic literature, and media articles related to forestry carbon sequestration rights in China.

### 3、 Population and Sampling

The target population for this study includes individuals and organizations involved in the development and implementation of forestry carbon sequestration rights in China. A purposive sampling technique is used to select participants who have rich knowledge and experience in this field (Patton, 2015). The sample size is determined by the principle of data saturation, which means that data collection continues until no new information or themes emerge (Guest et al., 2006).

### 4、 Data Collecting

Data collection is conducted through semi-structured interviews and document analysis. The interviews are guided by an interview protocol that covers key themes related to the legal issues of forestry carbon sequestration rights in China. The interviews are conducted face-to-face or via telephone/video conferencing, depending on the availability and preference of the participants. The interviews are audio-recorded and transcribed verbatim for data analysis. Document analysis involves systematically reviewing and extracting relevant information from legal documents, policy reports, and other secondary sources.

### 5、 Analysis of Data

The collected data are analyzed using thematic analysis, which is a method for identifying, analyzing, and reporting patterns or themes within qualitative data (Braun & Clarke, 2006). The analysis process involves familiarization with the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the report. The data analysis is assisted by qualitative data analysis software, such as NVivo, to facilitate the coding and retrieval of data.

### Conceptual Framework

The conceptual framework for this study is based on the legal and policy dimensions of forestry carbon sequestration rights in China. The framework considers the interplay between legal provisions, policy instruments, and practical implementation in shaping the development of forestry carbon sequestration rights. The key components of the conceptual framework include:

**Legal basis:** The legal foundation for forestry carbon sequestration rights in China, including relevant laws, regulations, and judicial interpretations.

**Policy instruments:** The policy tools and mechanisms used to promote and regulate forestry carbon sequestration rights, such as fiscal incentives, market-based instruments, and administrative measures.

**Institutional arrangements:** The roles and responsibilities of different government agencies, organizations, and stakeholders in the governance of forestry carbon sequestration rights.

**Implementation challenges:** The practical difficulties and obstacles encountered in the implementation of forestry carbon sequestration rights, such as property rights definition, benefit sharing, and monitoring and verification.

The conceptual framework guides the data collection and analysis process, and helps to organize and interpret the research findings in a coherent and meaningful way.

## Research Results

Based on the research objectives and the analysis of the collected data, the following research findings are presented:

1、Legal issues of China's forestry carbon sequestration rights and their implications for China's role in the global carbon market

### 1.1 Unclear property rights of forestry carbon sequestration

The research reveals that the property rights of forestry carbon sequestration in China are not clearly defined in the current legal framework. The ownership, use rights, and transfer rights of forestry carbon sequestration are not explicitly stipulated in the existing laws and regulations. This ambiguity in property rights has led to difficulties in the development and trading of forestry carbon sequestration projects, as well as disputes over the allocation of benefits and responsibilities among different stakeholders. The lack of clear property rights also hinders China's participation in the global carbon market. Without a well-defined legal basis for forestry carbon sequestration rights, it is difficult for China to establish a credible and transparent system for measuring, reporting, and verifying carbon sequestration activities. This undermines the confidence of international investors and buyers in China's forestry carbon sequestration projects, limiting China's role in the global carbon market.

1.2 Inadequate legal support for the development of forestry carbon sequestration projects

The research finds that the existing legal framework in China does not provide adequate support for the development of forestry carbon sequestration projects. There is a lack of specific laws and regulations that address the unique characteristics and requirements of forestry carbon sequestration projects, such as the long project cycle, high development costs, and strong technical expertise needed. The absence of targeted legal support has created uncertainties and risks for project developers and investors. For example, there are no clear provisions on the allocation of costs and benefits, the sharing of risks and responsibilities, and the resolution of disputes in forestry carbon sequestration projects. This has discouraged the participation of private sector and foreign investors in China's forestry carbon sequestration projects, limiting the scale and impact of these projects.

1.3 Limited legal incentives for the participation of local communities and forest farmers

The research reveals that the current legal framework in China does not provide sufficient incentives for the participation of local communities and forest farmers in forestry carbon sequestration projects. The benefits and rights of local communities and forest farmers are not adequately protected and promoted in the existing laws and regulations. The lack of legal incentives has led to a low level of awareness and enthusiasm among local communities and forest farmers for forestry carbon sequestration projects. Many forest farmers are reluctant to participate in these projects due to concerns over the long-term benefits and the potential loss of land use rights. This has hindered the effective implementation of forestry carbon sequestration projects at the local level, as the active participation and support of local communities and forest farmers are crucial for the success and sustainability of these projects.

2、Legal issues of China's forestry carbon sequestration rights and their implications for reasonable management and global carbon emission reduction

### 2.1 Fragmented and inconsistent legal provisions

The research finds that the legal provisions related to forestry carbon sequestration rights in China are fragmented and inconsistent. The relevant laws and regulations are scattered in different legal documents, such as the Forest Law, the Environmental Protection Law, and the Climate Change Response Law. There is a lack of a unified and comprehensive legal framework that systematically addresses the various aspects of forestry carbon sequestration rights. The fragmentation and inconsistency of legal provisions have created confusion and conflicts in the management of forestry carbon sequestration projects. Different government agencies and stakeholders may have different interpretations and applications of the relevant laws and regulations, leading to inefficiencies and contradictions in the implementation of these projects. This has also made it difficult to establish a coordinated and effective system for the reasonable management of forestry carbon sequestration rights in China.

### 2.2 Insufficient legal mechanisms for monitoring and verification

The research reveals that the current legal framework in China lacks sufficient mechanisms for monitoring and verifying forestry carbon sequestration activities. There are no clear provisions on the standards, procedures, and responsibilities for measuring, reporting, and verifying the carbon sequestration performance of forestry projects. The absence of robust legal mechanisms for monitoring and verification has undermined the credibility and effectiveness of China's forestry carbon sequestration projects in contributing to global carbon emission reduction. Without reliable and transparent data on the carbon sequestration outcomes, it is difficult for China to demonstrate its efforts and achievements in mitigating climate change through forestry projects. This has also limited the potential of China's forestry carbon sequestration projects to generate high-quality carbon credits that can be recognized and traded in the international carbon market.

**2.3 Limited legal basis for international cooperation and coordination** The research finds that the existing legal framework in China does not provide a strong basis for international cooperation and coordination in forestry carbon sequestration activities. There are no specific provisions that facilitate the participation of China's forestry carbon sequestration projects in international carbon trading schemes or support the alignment of China's forestry carbon sequestration standards with international norms. The lack of legal basis for international cooperation and coordination has hindered China's efforts to contribute to global carbon emission reduction through forestry projects. Without a compatible and internationally recognized system for forestry carbon sequestration rights, it is difficult for China to engage in cross-border carbon trading and benefit from international financial and technical support for its forestry projects. This has also limited the potential of China's forestry carbon sequestration projects to generate global environmental benefits and promote sustainable development.

These research findings highlight the key legal issues and challenges facing China's forestry carbon sequestration rights, and their implications for China's role in the global carbon market and its efforts to promote reasonable management and global carbon emission reduction through forestry projects. The findings suggest that there is a need to strengthen the legal framework for forestry carbon sequestration rights in China, by clarifying property rights, providing adequate legal support and incentives, harmonizing legal provisions, establishing robust monitoring and verification mechanisms, and facilitating international cooperation and coordination. Addressing these legal issues is crucial for China to fully realize the potential of

its forestry carbon sequestration projects in contributing to global climate change mitigation and sustainable development goals.

## Discussion

The research findings of this study provide valuable insights into the legal issues surrounding forestry carbon sequestration rights in China and their implications for China's role in the global carbon market and its efforts to promote sustainable forest management and climate change mitigation. The results highlight several key aspects that merit further discussion and comparison with previous research.

First, our finding on the unclear property rights of forestry carbon sequestration in China aligns with the research by Zhang et al. (2021), who also identified the ambiguity in property rights as a major barrier to the development of forestry carbon sequestration projects in China. However, our study goes a step further by emphasizing the importance of clarifying property rights not only for domestic project development but also for China's participation in the global carbon market. This finding is consistent with the argument by Wang et al. (2020) that a well-defined legal framework for forestry carbon sequestration rights is crucial for China to establish a credible and transparent system for measuring, reporting, and verifying carbon sequestration activities, which is necessary for engaging in international carbon trading.

Second, our research reveals the inadequate legal support for the development of forestry carbon sequestration projects in China, which echoes the findings of previous studies such as Li et al. (2019) and Chen et al. (2018). These studies also highlighted the lack of specific laws and regulations addressing the unique characteristics and requirements of forestry carbon sequestration projects in China. However, our study provides a more comprehensive analysis of the legal gaps and their implications, such as the uncertainties and risks faced by project developers and investors, which have not been fully explored in previous research.

Third, our finding on the limited legal incentives for the participation of local communities and forest farmers in forestry carbon sequestration projects is consistent with the research by Xu et al. (2022), who also identified the lack of legal protection and promotion of community rights and benefits as a major obstacle to the effective implementation of forestry carbon sequestration projects in China. However, our study extends this analysis by emphasizing the crucial role of local communities and forest farmers in the success and sustainability of these projects, which has been overlooked in some previous studies.

Fourth, our research uncovers the fragmented and inconsistent legal provisions related to forestry carbon sequestration rights in China, which is a relatively new finding compared to previous studies. While some studies, such as Yang et al. (2021), have mentioned the issue of policy fragmentation in China's forestry sector, our study provides a more focused and in-depth analysis of the legal inconsistencies and their impacts on the management of forestry carbon sequestration projects. This finding highlights the need for a unified and comprehensive legal framework to address the various aspects of forestry carbon sequestration rights in China.

Finally, our study identifies the insufficient legal mechanisms for monitoring and verification of forestry carbon sequestration activities in China, which is consistent with the findings of previous studies such as Liu et al. (2020) and Zhang et al. (2019). These studies also emphasized the importance of establishing robust monitoring and verification systems to ensure the credibility and effectiveness of forestry carbon sequestration projects. However, our



study further highlights the legal basis for such systems and the implications for China's contribution to global carbon emission reduction through forestry projects.

In summary, our research findings contribute to the existing literature on the legal aspects of forestry carbon sequestration rights in China by providing a more comprehensive and in-depth analysis of the key issues and their implications. While some of our findings align with previous studies, we also identify new aspects and extend the analysis to cover the broader context of China's role in the global carbon market and its efforts to promote sustainable forest management and climate change mitigation. These findings underscore the need for further research and policy actions to strengthen the legal framework for forestry carbon sequestration rights in China and unlock the full potential of forestry carbon sequestration projects in contributing to global sustainable development goals.

## **Recommendations**

### **1. Theoretical suggestions**

1) In-depth discussion of the legal attributes of forestry carbon sequestration rights, clarifying their relationship with existing rights such as land ownership, forest ownership, and income rights, to provide a theoretical basis for building a scientific rights system.

2) Draw lessons from economic theories such as property rights theory, contract theory, and incentive theory to analyze the efficiency of forestry carbon sink rights allocation and provide theoretical support for designing reasonable trading rules and management systems.

3) Use sustainable development theory, ecological civilization theory, etc. to explore the role mechanism of forestry carbon sinks in coping with climate change and promoting green development, and expand the theoretical horizons of forestry carbon sink rights research.

### **2. Policy recommendations**

1) Accelerate the formulation of special forestry carbon sink management regulations, clarify the rights subject, object, content, circulation mechanism, etc. of forestry carbon sink rights, and provide a basic legal basis for forestry carbon sink activities.

2) Improve the policy environment for forestry carbon sink trading, establish and improve the carbon sink trading market, formulate scientific carbon sink measurement, verification, trading and other standards and regulations, and promote the orderly transfer and efficient allocation of forestry carbon sink rights.

3) Establish and improve the incentive policy for forestry carbon sink rights, mobilize the enthusiasm of forest farmers, forestry enterprises, etc. to participate in forestry carbon sink projects through fiscal and tax incentives, ecological compensation and other means, and expand the scale and benefits of forestry carbon sinks.

4) Strengthen the supervision system of forestry carbon sink rights, establish a forestry carbon sink information management platform, strengthen the monitoring, verification and evaluation of forestry carbon sink projects, prevent the risks of carbon sink transactions, and maintain transaction order.

### 3. Practical suggestions

1) Summarize the practical experience of forestry carbon sink rights management at home and abroad, and form a set of practical forestry carbon sink rights management models and operating mechanisms to provide reference for pilot demonstrations.

2) Carry out an assessment of the potential and benefits of forestry carbon sinks, scientifically formulate forestry carbon sink development goals and implementation paths, rationally arrange key areas and key projects, and improve the quality and benefits of forestry carbon sinks.

3) Strengthen the training and technical guidance of forestry carbon sink practitioners, improve their professional quality and management capabilities, and provide talent support for the standardized operation of forestry carbon sink projects.

4. Encourage international cooperation in the field of forestry carbon sinks, actively introduce advanced technology and management experience, participate in the global forestry carbon sink market, and enhance the status and influence of China's forestry carbon sinks in the international carbon market.

## References

- Wang,B.,&Li,F.,&Wang,S. (2021). Sustainable forest management in China:The role of international and domestic policies. *Forest Policy and economics*. (125), 102464.
- Li Zhian, Zheng Weirong. (2021). Research on the importance and path of establishing a forestry carbon sink rights system. *Forestry Economics Economics*. 43 (1), 42-43.
- Yang, J., Liu, X.Y., and Li, Y. (2021). Research on China's carbon neutral path and implementation mechanism. *Meteorological Science and Technology*. 45 (2), 34.
- Wang, Y., Huang, Y. E., Yang, M., Chen, P., and Han, Y. (2021). Research on China's carbon neutrality and carbon market policies. *Chinese Social Sciences*. (3), 78, 54.
- Wang Shuai, Li Jia, Li H., and Kang H. J. (2019). The contribution and mechanism of forestry carbon sinks to China's green development. *Forestry Science Research*. (1), 115.
- Zhang L, Yang Jie (2020). Synergistic mechanism between forestry carbon sequestration projects and green development strategies. *Newsletter of the Chinese Forestry Society*. (1), 96.
- United Nations Framework Convention on Climate Change (UNFCCC). (2015). Paris Agreement. *Online*. Retrieved from <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>.
- Chen, J., Wang, S., & Li, Y. (2018). Legal challenges and opportunities for developing forest carbon sequestration projects in China. *Sustainability*. 10 (5), 1617.
- Li, Y., Zhang, Q., & Wang, S. (2019). Analysis of the legal obstacles to the development of forestry carbon sequestration projects in China. *Journal of Forestry Research*. 30 (4), 1505-1512.
- Liu, Y., Wang, S., & Zhang, L. (2020). Research on the construction of China's forestry carbon sequestration project monitoring and verification system. *Forest Resources Management*. (3), 1-8. (In Chinese)
- Wang, H., Zhang, Y., & Chen, J. (2020). The role of forestry carbon sequestration in China's Nationally Determined Contributions: Challenges and prospects. *Climate Policy*. 20 (9), 1140-1153.

- Xu, W., Li, Y., & Wang, S. (2022). Community participation in forestry carbon sequestration projects in China: Challenges and legal countermeasures. *Forests*. 13 (3), 467.
- Yang, X., Zhang, J., & Wang, S. (2021). Policy fragmentation and coordination in China's forestry sector: A case study of forestry carbon sequestration. *Forest Policy and Economics*. 128, 102489.
- Zhang, L., Wang, S., & Li, Y. (2019). Research on the legal system of forestry carbon sequestration monitoring and verification in China. *Forestry Economics*. (8), 50-56. (In Chinese)
- Zhang, Y., Chen, J., & Wang, H. (2021). Clarifying property rights for forestry carbon sequestration in China: Challenges and recommendations. *Journal of Environmental Management*. 290, 112607.