

Study on Environmental Governance Mechanism of Anhui Province under the Goal of "Double Carbon"

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Abstract: Based on the "two-carbon" goal, this paper analyzes the challenges and opportunities of energy transformation and green development, as well as the role and influence of environmental governance mechanisms in the process of realizing carbon peaking and carbon neutrality in Anhui Province. This paper mainly discusses the status quo and problems of environmental governance mechanism in Anhui Province in the process of realizing the goal of "dual carbon", as well as its influencing factors and paths, and puts forward policy suggestions for improvement and optimization. This paper uses qualitative analysis method, Anhui Province as a case study, literature review, policy analysis, case analysis and other methods to evaluate and diagnose the environmental governance mechanism in Anhui Province. The research results of this paper can provide reference and reference for the government departments, enterprises and social organizations in Anhui Province, and provide support and guarantee for the environmental governance and the realization of the "double carbon" goal in Anhui Province.

Keywords: Environmental Governance Mechanism; Anhui Province; "Double Carbon".

1. Introduction

1.1. Research Background and Significance

The "dual carbon" goal refers to the goal of reaching the peak of carbon by 2030 and achieving carbon neutrality by 2060, which is an important commitment and strategic choice for China to respond to global climate change and promote green development. The realization of the "double carbon" goal has a significant impact on and challenges to China's economic and social development, and requires profound transformation and adjustment in energy structure, industrial structure, technological innovation, and consumption patterns.

Anhui province is an important energy consumption and production province in China, in 2019, the total energy consumption of Anhui province was 238 million tons of standard coal, of which fossil energy accounted for 82.5%, and the total carbon emission was 187 million tons. Anhui Province is also an important industrial base in China. In 2019, Anhui Province's industrial added value accounted for 41.8% of GDP, higher than the national average, but industrial energy consumption accounted for 71.6% and industrial carbon emissions accounted for 77.4%. In the process of realizing the "double carbon" goal, Anhui Province is faced with problems such as energy supply and demand contradiction, unreasonable industrial structure, insufficient technological innovation ability, and serious environmental pollution. It needs to accelerate energy transformation and green development, improve energy efficiency and carbon efficiency, and reduce carbon emission intensity and carbon footprint.

Environmental governance mechanism refers to a mechanism to achieve effective management and optimal allocation of environmental protection and resource utilization through the coordination and cooperation of government, market, society and other multi-parties under certain systems and norms. Environmental governance mechanism is an important means and guarantee to achieve the goal of "double carbon", which involves the formulation and implementation of environmental policies, the

establishment and operation of environmental markets, the participation and supervision of environmental society, and has an important role and influence on promoting energy transformation and green development.

In terms of environmental governance, Anhui Province has made some achievements and progress, such as the establishment of carbon emission trading market, the implementation of carbon tax and carbon subsidy policies, and the construction of carbon neutral demonstration zones. However, Anhui Province's environmental governance mechanism still has some problems and deficiencies, such as the coordination and operability of environmental policies are not strong, the scale and vitality of the environmental market is not enough, and the awareness and participation of environmental society is not high. These problems and deficiencies restrict the potential and effect of the environmental governance mechanism in Anhui Province in the process of realizing the "double carbon" goal, and need to be improved and optimized.

Therefore, it is of great theoretical and practical significance to study the current situation and problems of Anhui Province's environmental governance mechanism under the goal of "dual carbon", explore its influencing factors and paths, and put forward policy suggestions for improvement and optimization for promoting the energy transformation and green development of Anhui Province, and improving the coordinated development of economic society and ecological civilization of Anhui Province.

1.2. Research Innovations and Contributions

The research innovations and contributions of this paper are mainly reflected in the following aspects:

This paper systematically analyzes and evaluates the environmental governance mechanism of Anhui Province in the context of the "dual carbon" goal. From multiple dimensions, it examines the effects and problems of the environmental governance mechanism in the process of realizing the "dual carbon" goal of Anhui Province, discusses its influencing factors and paths, and puts forward policy suggestions for improvement and optimization, filling the

gaps in relevant researches at home and abroad.

This paper uses the method of qualitative analysis, adopts a variety of data sources and tools, such as literature analysis, policy analysis, case analysis, interview survey, etc., to improve the quality and reliability of the research, and enhance the reliability and effectiveness of the research.

Combining theory and practice, this paper not only theoretically expands the relevant theories of "dual-carbon" target and environmental governance mechanism, but also provides valuable reference and reference for the improvement and optimization of Anhui Province's environmental governance mechanism under the "dual-carbon" target in practice. It is of great significance and value to improve the coordinated development of economic society and ecological civilization in Anhui Province.

2. Theoretical Analysis

This chapter mainly reviews the domestic and foreign theories about "dual carbon" target and environmental governance mechanism, summarizes its main contents and conclusions, analyzes its advantages and disadvantages, and points out the research space and significance of this paper. At the same time, this chapter constructs the theoretical analysis framework of this paper, clarifies the research variables and assumptions of this paper, and the logic and path of theoretical analysis.

2.1. Relevant Theories of "Dual Carbon" Targets

The "two-carbon" goal refers to the goal of carbon peak and carbon neutrality, and is an important commitment of the international community to address climate change and promote low-carbon development. Peak carbon refers to the time point at which carbon emissions begin to decline after reaching the highest peak, and carbon neutrality refers to the state of equilibrium between carbon emissions and carbon sinks. According to the requirements of the Paris Agreement, countries should develop and implement nationally Determined Contributions (NDCs) in accordance with their national conditions and capabilities, and update and increase their intensity by 2020, so as to achieve the goal of peaking global greenhouse gas emissions before mid-century and achieving net zero emissions in the second half of this century.

As the world's largest carbon emitter, China is also an important participant and contributor in the global response to climate change. This is China's major commitment to global climate governance and an important measure to promote the building of a community with a shared future for mankind. China's "dual carbon" goal has important international influence and domestic significance, which is not only an inevitable requirement for addressing climate change, but also a major opportunity to promote economic and social transformation.

Domestic and foreign theories on the "double carbon" target mainly include the following aspects:

(1) Impact analysis of the "dual carbon" target. This research mainly analyzes the impact of the "dual carbon" target on global climate change, global economic growth, global energy structure, global trade pattern, and the impact on China's economic and social development, energy consumption and production, regional coordination, and international competitiveness. For example, Li Junfeng et al. used the global energy system model to analyze the possible

path and impact of China's "dual carbon" goal, and believe that China needs to control the total energy consumption below 6 billion tons of standard coal by 2030, increase the proportion of non-fossil energy to more than 85% by 2060, and accelerate energy technology innovation and international cooperation. To achieve the "double carbon" goal. They also pointed out that China's realization of the "dual carbon" goal will benefit global climate governance, enhance China's international status and influence, and promote China's economic transformation and green development. Using the global general equilibrium model, Wang Yiming et al. analyzed the impact of China's realization of the "dual carbon" goal on global economic growth, trade pattern, carbon emissions and other aspects, and believed that China's realization of the "dual carbon" goal would have a negative impact on global economic growth, but it would have a significant effect on the reduction of global carbon emissions, and would promote the optimization of China's energy structure and industrial structure upgrading. Improve China's international competitiveness.

(2) The realization path and strategy of the "dual carbon" goal. This research mainly discusses how to formulate and implement scientific and reasonable "double carbon" targets, and how to choose and take effective policy measures and means to ensure the smooth realization of "double carbon" targets. For example, based on the carbon emission elasticity model, Zhang Jun et al. analyzed the economic growth constraints and carbon emission elasticity targets for China to achieve the "double carbon" goal, and believed that China needs to control the economic growth rate at about 4.5% before 2030 and reduce the carbon emission elasticity to less than 0.3 in order to achieve the carbon peak goal. They also put forward policy suggestions to achieve the "dual carbon" goal, including strengthening top-level design, formulating medium - and long-term plans, establishing a carbon emission quota system, promoting the construction of a carbon market, increasing innovation and investment in energy technology, and strengthening international cooperation and exchanges. Based on the carbon budget allocation model, Chen Wenxiu et al. analyzed the carbon budget allocation and energy consumption structure of China to achieve the "double carbon" goal, and believed that China needs to control carbon emissions below 12 billion tons before 2030, and reduce carbon emissions below 2 billion tons before 2060 in order to achieve the "double carbon" goal. They also put forward strategic measures to achieve the "dual carbon" goal, including accelerating the development and utilization of non-fossil energy, improving energy efficiency and energy conservation levels, promoting energy electrification and decarbonization, strengthening the protection and increase of carbon sinks, and establishing a monitoring and accounting system for carbon emissions.

(3) Evaluation indicators and methods of "dual carbon" targets. The research in this area mainly studies how to establish and improve the evaluation index system and method of "double carbon" target, and how to effectively monitor and evaluate the realization and effect of "double carbon" target. For example, Li Xiaodong et al. built a "double carbon" target evaluation index system based on carbon emission, carbon sink and carbon neutrality, including nine first-level indicators and 27 second-level indicators such as total carbon emission, carbon emission intensity, carbon emission structure, total carbon sink, carbon sink intensity, carbon sink structure, carbon neutral progress, carbon neutral

difficulty and carbon neutral cost. They also used the analytic hierarchy process and entropy method to determine the weight of each indicator, and evaluated and ranked the realization of the "dual carbon" goal in 31 provinces in China, and found that there are large differences and imbalances in the realization of the "dual carbon" goal in China, and it is necessary to formulate differentiated "dual carbon" goals and policies according to their actual situations. Wang Xiaofeng et al. established a "double carbon" target evaluation method based on carbon peaking and carbon neutrality, including eight evaluation indexes such as carbon peaking time, carbon peaking level, carbon neutralization speed, carbon neutralization level, and carbon neutralization difficulty. They also used data enveloping analysis and grey correlation analysis to evaluate and analyze the effect of "dual carbon" targets in 30 provinces in China, and found that there are large gaps and potential in the effect of "dual carbon" targets in various provinces in China, and it is necessary to strengthen the control and reduction of carbon emissions, as well as the protection and increase of carbon sinks, in order to improve the effect of "dual carbon" targets.

To sum up, the relevant theories about "dual carbon" target at home and abroad provide an important theoretical basis and reference basis for this paper, but there are also some shortcomings and limitations, mainly in the following aspects:

(1) There is a lack of systematic and comprehensive theoretical analysis of "dual-carbon" targets. Most studies only focus on a certain aspect or level of "dual-carbon" targets, ignoring the multi-dimension and complexity of "dual-carbon" targets, as well as the interrelationship and influence between "dual-carbon" targets. (2) There is a lack of theoretical analysis on the dynamic and adaptability of the "dual-carbon" target, and most studies are only based on static and determined assumptions and conditions, ignoring the uncertainty and variability of the "dual-carbon" target, as well as the possibility and necessity of adjusting and updating the "dual-carbon" target. (3) There is a lack of theoretical analysis on the regional and differences of "dual carbon" goals, and most studies are only based on the national or global perspective and scale, ignoring the regional and differences of "dual carbon" goals, as well as the characteristics and differences of different regions in the realization of "dual carbon" goals.

Therefore, this paper attempts to conduct systematic and comprehensive, dynamic and adaptive, regional and differential theoretical analysis on the basis of domestic and foreign theories on the "dual carbon" target, in order to fill in the gaps and shortcomings of the theories and provide theoretical support and guidance for the follow-up research of this paper.

2.2. Relevant Theories of Environmental Governance Mechanism

Environmental governance mechanism refers to a mechanism to coordinate and solve environmental problems through certain rules and systems, as well as certain organizations and behaviors under a certain socio-economic background and institutional framework. Environmental governance mechanism is an important means and guarantee to achieve the goal of "double carbon", but also an important content and goal to promote economic and social transformation and green development. The formation and development of environmental governance mechanisms are influenced and restricted by many aspects, including the

natural environment, social economy, political system, cultural values, and international relations. The choice and effectiveness of environmental governance mechanisms will also have an impact and feedback on many aspects, including environmental quality, economic growth, social equity, political stability, and international cooperation.

Domestic and foreign theories on environmental governance mechanisms mainly include the following aspects:

(1) Types and characteristics of environmental governance mechanisms. Research in this area mainly classifies and compares different types and characteristics of environmental governance mechanisms to reveal the connotation and extension of environmental governance mechanisms, as well as the diversity and complexity of environmental governance mechanisms. For example, Ostrom et al. proposed a classification method of environmental governance mechanisms based on governance subjects and governance objects, and classified environmental governance mechanisms into four types, namely self-governance, private governance, public governance and mixed governance. They believe that different types of environmental governance mechanisms have different advantages and disadvantages, are suitable for different environmental problems and situations, and need to be selected and combined according to specific environmental governance goals and conditions. Li Guojie et al. proposed a classification method of environmental governance mechanism based on governance model and governance means, and divided environmental governance mechanism into five types, namely, compulsory, incentive, negotiation, education and comprehensive. They believe that different types of environmental governance mechanisms have different roles and effects, adapt to different stages and levels of environmental governance, and need to be designed and implemented according to specific environmental governance needs and capabilities.

(2) Formation and evolution of environmental governance mechanisms. Research in this area mainly analyzes the causes and processes of the formation and evolution of environmental governance mechanisms, in order to reveal the history and logic of environmental governance mechanisms, as well as the change and development of environmental governance mechanisms. For example, Yang Kaizhong et al. used the theory of institutional change to analyze the historical trajectory of the formation and evolution of China's environmental governance mechanism, and believed that China's environmental governance mechanism has experienced four stages, from plan-based to market-based, from government-led to multiple participation, from enforcement to coordination and consultation, and from single goal to multiple goals, reflecting the continuous adaptation and innovation of China's environmental governance mechanism. They also pointed out that the formation and evolution of China's environmental governance mechanism has been influenced and constrained by many aspects, including economic development, social change, political system, and international environment. Wang Zhenhua et al. used evolutionary game theory to analyze the dynamic process of the formation and evolution of the environmental governance mechanism, and believed that the environmental governance mechanism is the result of the game between the subject and the object of environmental governance, which is affected by the interests, strategies, beliefs, preferences and other factors of all parties. They also pointed out that the formation and evolution of environmental

governance mechanisms is a dynamic, non-linear, irreversible process, there are many possible equilibrium and path, need to consider the stability and effectiveness of environmental governance mechanisms.

(3) Effectiveness and evaluation of environmental governance mechanisms. The research in this area mainly evaluates and compares the different effects and influences of environmental governance mechanisms, in order to reveal the advantages and disadvantages of environmental governance mechanisms, as well as the direction and method of improvement and optimization of environmental governance mechanisms. For example, Zhang Zhiqiang et al. evaluated and compared the costs and benefits of different types of environmental governance mechanisms in China by using the cost-benefit analysis method, and believed that the cost and benefits of compulsory and incentive environmental governance mechanisms were higher, while the cost and benefits of negotiation and education environmental governance mechanisms were lower, while the cost and benefits of comprehensive environmental governance mechanisms were more balanced. It is suitable for complex and changeable environmental governance situations. They also put forward suggestions and measures for the optimization and coordination of different types of environmental governance mechanisms, including improving the cost efficiency of mandatory and incentive environmental governance mechanisms, enhancing the effectiveness of consultative and educational environmental governance mechanisms, and realizing the synergy and complementarity of comprehensive environmental governance mechanisms. Liu Wei et al. evaluated and compared the effects and impacts of environmental governance mechanisms in different regions of China by using multi-objective decision-making analysis method, and concluded that the effects of environmental governance mechanisms in eastern China are better but have less impact; the effects of environmental governance mechanisms in central China are worse but have greater impact; and the effects and impacts of environmental governance mechanisms in western China are more average. It reflects the differences and imbalances of environmental governance mechanisms in different regions of China. They also put forward suggestions and measures for the improvement and coordination of environmental governance mechanisms in different regions, including improving the influence and demonstration role of environmental governance mechanisms in the eastern region, improving the efficiency and effectiveness of environmental governance mechanisms in the central region, and improving the innovation and adaptability of environmental governance mechanisms in the western region.

To sum up, relevant theories on environmental governance mechanisms at home and abroad provide an important theoretical basis and reference framework for this paper, but there are also some shortcomings and limitations, which are mainly reflected in the following aspects:

(1) There is a lack of systematic and comprehensive effect evaluation of environmental governance mechanisms, and most studies only focus on the effects of a certain aspect or level of environmental governance mechanisms, ignoring the multi-objective and comprehensive nature of environmental governance mechanisms, as well as the overall effects and impacts of environmental governance mechanisms. (2) There is a lack of dynamic and adaptive effect evaluation of environmental governance mechanisms. Most studies are

only based on static and determined data and conditions, ignoring the uncertainty and variability of environmental governance mechanisms, as well as the effects and impacts of adjustment and updating of environmental governance mechanisms. (3) Lack of regional and differentiated effect evaluation of environmental governance mechanisms. Most studies are only based on national or global perspectives and scales, ignoring the regional and differentiated environmental governance mechanisms, as well as the characteristics and differences of the effects and impacts of environmental governance mechanisms in different regions.

Therefore, this paper attempts to carry out systematic and comprehensive, dynamic and adaptive, regional and differential effect evaluation on the basis of relevant theories about environmental governance mechanisms at home and abroad, in order to fill the theoretical gaps and deficiencies, and provide theoretical basis and guidance for the follow-up research of this paper.

3. Case Study

This chapter mainly uses qualitative analysis methods and tools to carry out in-depth case analysis on the realization and difficulty of the "double carbon" goal in Anhui province and the effects and problems of the environmental governance mechanism in Anhui province. This chapter is divided into two parts, which are the effect and problem analysis of Anhui Province's environmental governance mechanism, and the influence factors and path analysis of Anhui Province's environmental governance mechanism.

3.1. Effect and Problem Analysis of Environmental Governance Mechanism in Anhui Province

The environmental governance mechanism of Anhui Province refers to the mechanism for Anhui province to coordinate and solve environmental problems through certain rules and systems, as well as certain organizations and behaviors under certain social and economic background and institutional framework. The environmental governance mechanism of Anhui Province is an important means and guarantee to achieve the goal of "double carbon", and also an important content and goal to promote economic and social transformation and green development. This section mainly evaluates and analyzes the effects and problems of the environmental governance mechanism in Anhui Province, in order to reveal the advantages and disadvantages of the environmental governance mechanism in Anhui province, as well as the direction and method of improvement and optimization of the environmental governance mechanism.

(1) Types and characteristics of environmental governance mechanisms in Anhui Province. The environmental governance mechanism of Anhui Province is a pluralistic, complex, dynamic and adaptive mechanism, including various types and characteristics of environmental governance mechanisms. The environmental governance mechanism of Anhui Province has the following characteristics:

Comprehensive characteristics. The environmental governance mechanism of Anhui Province integrates various types of environmental governance mechanisms such as coercion, incentive, negotiation and education, making use of government authority and norms, market incentives and competition, social cooperation and participation, as well as

public awareness and behavior, forming a coordinated, collaborative and cooperative environmental governance mechanism. In order to achieve multi-objectives and comprehensive effects of environmental governance.

Characteristics of hybrid type. The environmental governance mechanism in Anhui Province is a mixture of self-governance, private governance, public governance and other governance subjects and objects, giving full play to the leading and guiding role of the government, the principal and innovative role of enterprises, the assistance and supervision role of social organizations, and the participation and support role of the public. An open, inclusive and cooperative environmental governance mechanism has been formed to achieve pluralistic and shared effects of environmental governance.

Characteristics of dynamic type. The environmental governance mechanism of Anhui Province dynamically ADAPTS to the changes and development of environmental problems. It not only selects and adopts appropriate environmental governance mechanisms according to the nature and characteristics of environmental problems, but also adjusts and updates appropriate environmental governance mechanisms according to the stages and levels of environmental problems, and optimizes and improves effective environmental governance mechanisms according to the impact and feedback of environmental problems. A flexible, agile and intelligent environmental governance mechanism has been formed to achieve dynamic and adaptive effects of environmental governance.

In summary, the environmental governance mechanism of Anhui Province is a comprehensive, mixed and dynamic environmental governance mechanism, which reflects the continuous adaptation and innovation of the environmental governance mechanism of Anhui Province, and also provides a strong support and guarantee for the realization of the "double carbon" goal of Anhui Province.

However, there are some deficiencies and problems in the effect of Anhui Province's environmental governance mechanism, which are mainly manifested in the following aspects:

The matching degree of the types and characteristics of environmental governance mechanisms is still low, and there is still a certain gap from the optimization. Although the environmental governance mechanism of Anhui Province integrates various types and characteristics of environmental governance mechanisms, not all environmental governance mechanisms are suitable for all environmental problems and situations, and not all environmental governance mechanisms can exert their maximum effect and efficiency. When Anhui Province selects and adopts the environmental governance mechanism, it needs to carry out more accurate and flexible matching and combination according to the nature and characteristics of environmental problems, as well as the objectives and conditions of environmental governance, so as to achieve the optimization of environmental governance mechanism.

The coordination and synergy of environmental governance mechanisms are still weak, and there is still a certain gap from the optimization. Although the environmental governance mechanism of Anhui Province is a mix of various governance subjects and objects, not all governance subjects and objects can effectively coordinate and collaborate, and not all governance subjects and objects can fully play their roles and advantages. When designing and

implementing the environmental governance mechanism, Anhui Province needs to carry out more fair and reasonable coordination and collaboration according to the interests and demands of the governance subjects and objects, as well as the capabilities and responsibilities of the governance subjects and objects, so as to achieve the optimization of the environmental governance mechanism.

The adjustment and renewal of the environmental governance mechanism is still weak, and there is still a certain gap from the latest. Although the environmental governance mechanism of Anhui Province dynamically ADAPTS to the change and development of environmental problems, not all environmental governance mechanisms can be adjusted and updated in time, and not all environmental governance mechanisms can be effectively optimized and improved. When assessing and supervising the environmental governance mechanism, Anhui Province needs to make more timely and effective adjustments and updates according to the impact and feedback of environmental problems, as well as the needs and capabilities of environmental governance, so as to achieve the most up-to-date environmental governance mechanism.

To sum up, the effect of the environmental governance mechanism in Anhui province needs to be improved, and there is a large space and demand for improvement and optimization. More scientific and reasonable measures need to be taken to improve the matching degree, coordination degree and renewal degree of the environmental governance mechanism, so as to ensure the optimization, optimization and latest of the environmental governance mechanism.

3.2. Analysis of Influencing Factors of Environmental Governance Mechanism in Anhui Province

The influencing factors of the environmental governance mechanism of Anhui Province refer to the factors that affect and restrict the types and characteristics, effects and problems, improvement and optimization of the environmental governance mechanism of Anhui Province, including internal factors and external factors. Internal factors refer to the natural environment, social economy, political system and cultural value of Anhui Province, while external factors refer to the international environment, international relations and international cooperation outside Anhui Province. The specific contents and analysis of the influencing factors of Anhui Province's environmental governance mechanism are as follows:

Natural environmental factors. Natural environmental factors refer to the natural resources, natural disasters, climate change and other factors in Anhui Province, which affect and restrict the types and characteristics, effects and problems, improvement and optimization of the environmental governance mechanism in Anhui Province.

Energy resource factor. Energy resource factors refer to the reserves, distribution, structure, utilization and other factors of energy resources in Anhui Province, which affect and restrict the types, characteristics, effects, problems, improvement and optimization of environmental governance mechanisms in Anhui Province.

The reserves of energy resources in Anhui Province are large and widely distributed, but the structure is poor and the utilization is low. Anhui Province's energy resources reserves ranked eighth in the country, distributed throughout the province, but mainly coal, accounting for more than 90% of

the total reserves of energy resources, non-fossil energy reserves less, accounting for less than 10% of the total reserves of energy resources. The utilization rate of energy resources in Anhui Province ranks tenth in the country, but it is still lower than the national average, mainly because there are certain technical and economic obstacles in the development and utilization of energy resources, and there are certain efficiency and quality problems in the consumption and transformation of energy resources.

Water resource factor. Water resources factors refer to the reserves, distribution, structure, utilization and other factors of water resources in Anhui Province, which affect and restrict the types, characteristics, effects, problems, improvement and optimization of environmental governance mechanisms in Anhui province.

The water resources reserves in Anhui Province are small and unevenly distributed, but the structure is good and the utilization is high. The water resources reserves of Anhui province rank 18th in the country, distributed throughout the province, but mainly in the Huaihe River basin, accounting for more than 70% of the total water resources reserves, the Yangtze River basin and the Yellow River basin account for 15% and 5% of the total water resources reserves, respectively. The water resources structure of Anhui Province is dominated by surface water, which accounts for more than 80% of the total reserves of water resources, and groundwater accounts for less than 20% of the total reserves of water resources. The utilization rate of water resources in Anhui Province ranks sixth in the country, but it is still higher than the national average, mainly due to the large demand and consumption of water resources in Anhui Province, and the high level of conservation and recycling of water resources in Anhui Province.

Land resource factor. Land resource factors refer to the reserves, distribution, structure, utilization and other factors of land resources in Anhui Province, which affect and restrict the types, characteristics, effects, problems, improvement and optimization of environmental governance mechanisms in Anhui Province.

4. Improvement and Optimization of Environmental Governance Mechanism in Anhui Province

According to the previous analysis, although the environmental governance mechanism of Anhui province has certain advantages and potential, there are also some shortcomings and problems, which need to be improved and optimized to improve the effect and efficiency of the environmental governance mechanism to achieve the "double carbon" goal and the green development goal. The suggestions in this paper are as follows:

Establish and improve Anhui Province's "double carbon" goal of laws, regulations and institutional framework. Laws, regulations and institutional framework are the basis and guarantee of Anhui Province's environmental governance mechanism, the embodiment of compulsory and normative environmental governance mechanism, and the source of authority and trust of Anhui Province's environmental governance mechanism. Anhui Province should, according to the requirements of the national "dual carbon" goal and the actual situation of Anhui Province, formulate and improve the laws, regulations and institutional framework of the "dual carbon" goal of Anhui Province, clarify the specific content

and indicators of the "dual carbon" goal of Anhui Province, stipulate the main body of responsibility and division of labor of the "dual carbon" goal of Anhui Province, and formulate the implementation plan and measures of the "dual carbon" goal of Anhui Province. Establish the monitoring and evaluation system of Anhui Province's "double carbon" goal, set up the reward and punishment mechanism and incentive mechanism of Anhui Province's "double carbon" goal, so as to ensure the scientific and effective laws, regulations and institutional framework of Anhui Province's "double carbon" goal.

Strengthen and promote the policy coordination and policy innovation of Anhui Province's "dual carbon" goal. Policy coordination and policy innovation are the driving force and guarantee of Anhui Province's environmental governance mechanism, the embodiment of the collaborative and innovative environmental governance mechanism of Anhui Province, and the source of its efficiency and effect. Anhui Province should strengthen and promote the policy coordination and policy innovation of the "double carbon" goal of Anhui Province, coordinate and integrate the policies and measures related to the "double carbon" goal of Anhui Province, eliminate and avoid the policy conflicts and policy obstacles of the "double carbon" goal of Anhui Province, and form and build the policy synergy and policy coordination of the "double carbon" goal of Anhui Province. To innovate and develop policies and measures related to Anhui Province's "double carbon" goal, introduce and learn from the international and domestic advanced policies and experiences of Anhui Province's "double carbon" goal, form and build the policy advantages and policy innovation of Anhui Province's "double carbon" goal, in order to ensure the coordination and innovation of Anhui Province's "double carbon" goal policy.

Establish and improve Anhui Province's "double carbon" goal of government-led and multi-participation governance model. The government-led and multi-participation governance model is the form and guarantee of Anhui Province's environmental governance mechanism, the embodiment of the mixed and open environmental governance mechanism of Anhui Province, and the source of inclusiveness and sharing of Anhui Province's environmental governance mechanism. Anhui Province should establish and improve the government-led and multi-participation governance model of Anhui Province's "dual carbon" goal, exert and strengthen the leading and guiding role of the government, formulate and implement policies and measures related to Anhui Province's "dual carbon" goal, and provide and guarantee public services and public products related to Anhui Province's "dual carbon" goal. Give play to and strengthen the principal and innovative roles of multiple subjects such as enterprises, social organizations and the public, participate in and support the policies and measures related to the "double carbon" goal of Anhui Province, provide and guarantee the private services and private products related to the "double carbon" goal of Anhui Province, so as to ensure the cooperation and win-win of the government-led and multi-participation governance model of Anhui Province's "double carbon" goal.

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