International Journal of Advances in Engineering and Management (IJAEM)
Volume 7, Issue 07 July 2025, pp: 877-884 www.ijaem.net ISSN: 2395-5252

Study on the Ecological Compensation Mechanism of Jiangsu Yellow Sea Wetland World Natural Heritage Site From the Perspective of Collaborative Governance

Jiashuang Hou1, Binglin Liu[2]*

1. School of Economics and Management, Nanning Normal University, Nanning 530001, China
2.School of Geography and Planning, Nanning Normal University, Nanning 530001, China

Date of Submission: 20-07-2025 Date of Acceptance: 30-07-2025

I. INTRODUCTION

1.1 Research background and significance

As one of the three major ecosystems in the world, wetlands have important ecological functions such as regulating climate, conserving water resources, purifying water quality, and maintaining biodiversity. They are known as the "kidneys of the earth". Jiangsu Yellow Sea Wetland is located on the west coast of the Pacific Ocean and the edge of the Asian continent. It is China's largest coastal wetland type world natural heritage. In July 2019, China's Yellow (Bohai) Sea Bird Habitat (Phase I) was successfully included in the World Heritage List. Jiangsu Yellow Sea Wetland is the core area, covering Jiangsu Yancheng Wetland Rare Bird National Nature Reserve, Jiangsu Dafeng Elk National Nature Reserve and Dongtai Tiaozin Wetland Park, etc., with extremely high ecological, social and economic value.

However, with population growth and economic development, Jiangsu Yellow Sea Wetland faces a sharp contradiction between protection and development. Reclamation and aquaculture, industrial pollution, climate change and other factors have led to the shrinkage of wetland area and degradation of ecological functions. At the same time, the conflict between the protection requirements of heritage sites and the development needs of surrounding communities has become increasingly prominent. As an important means of coordinating ecological protection and economic development, the ecological compensation mechanism provides economic compensation to ecological protectors to encourage protection behavior, builds a diversified ecological compensation mechanism under the framework of collaborative governance theory, and integrates government, market and social forces, which is of great significance to the sustainable development of Jiangsu Yellow Sea Wetland.

This study takes the Yellow Sea Wetland in Jiangsu as the object, analyzes the current situation, problems and optimization paths of its ecological compensation mechanism based on the collaborative governance theory, and combines the comparison of governance models of international wetland heritage sites to put forward countermeasures and suggestions, providing a reference for the protection and sustainable utilization of China's coastal wetland world natural heritage.

1.2 Research Overview

1.2.1 Research progress on wetland ecological compensation

Domestic and foreign scholars have focused their research on wetland ecological compensation on compensation theory, standards, methods and mechanisms. Externality theory, public goods theory and sustainable development theory provide theoretical foundations for it. Compensation standards are calculated based on the value of ecosystem services and opportunity costs, and compensation methods include funds, technology, policies and in-kind compensation. In recent years, the rise of collaborative governance theory has provided a new perspective for building a diversified ecological compensation mechanism led by the government, operated by the market and participated by the society, emphasizing the cooperation of multiple subjects to solve complex ecological problems.

1.2.2 Current status of research on Jiangsu Yellow Sea wetlands

As China's first coastal wetland world natural heritage, the Jiangsu Yellow Sea Wetland has been the subject of existing research covering

International Journal of Advances in Engineering and Management (IJAEM)
Volume 7, Issue 07 July 2025, pp: 877-884 www.ijaem.net ISSN: 2395-5252

ecosystem service value assessment, biodiversity protection, landscape pattern changes, protection and development conflicts, and exploration of ecological compensation mechanisms. Jiangsu Province has initially established a wetland ecological compensation system. In 2016, the Jiangsu Province Wetland Protection Regulations proposed the establishment of a compensation mechanism. In 2019, the Yancheng Rare Birds Conservation Area launched a wetland ecological benefit compensation project. In 2022, Jiangsu Province's first wetland restoration carbon sink forward pledge loan was implemented in Dafeng, Yancheng, opening up a green financial channel.

1.2.3 Research on the governance model of international wetland heritage sites

The governance models of international wetland heritage sites include government-led, community-participated, market-operated and international-cooperative. The US Wetland Compensation Bank mechanism compensates for development damages through market-traded wetland credits; the Australian community participation model emphasizes the dominant position of residents in protection; and the EU Wetland Contract clarifies rights and responsibilities through multi-party agreements. These models provide references for China's wetland governance.

1.3 Research content and methods

1.3.1 Research content

This study constructs a theoretical framework for the ecological compensation mechanism of the Yellow Sea wetlands in Jiangsu Province based on the theory of collaborative governance; analyzes the ecological characteristics, protection status and main problems of wetlands; sorts out the current status of the ecological compensation mechanism, including subjects, objects, standards, methods and funding sources; explores the problems and causes of the compensation mechanism; summarizes the experience that can be learned through international comparison; and puts forward countermeasures and suggestions for improving the ecological compensation mechanism.

1.3.2 Research Methods

The study adopted the literature research method, collecting and analyzing relevant domestic and foreign literature to construct a theoretical basis; the case analysis method, taking the Yellow Sea Wetland in Jiangsu as the object to analyze the current situation and problems of the compensation mechanism; the comparative research method, comparing international wetland governance models to summarize experience; the empirical research method, combining field research and data analysis to verify the feasibility of theories and countermeasures.

II. THEORETICAL BASIS AND RESEARCH FRAMEWORK

2.1 Definition of core concepts

2.1.1 Governance of World Natural Heritage Sites

The governance of world natural heritage sites is to design a scientific system for world natural heritage, coordinate the interests of the state, departments, residents, investors and the public, ensure the authenticity and integrity of the heritage, and give play to its cultural and economic values on the basis of protection. The core goal is to achieve the coordination and unity of heritage protection and regional development, and ensure the sustainable use of heritage resources.

2.1.2 Ecological compensation mechanism

The ecological compensation mechanism aims to protect the ecological environment and promote harmony between man and nature. It uses administrative and market means to adjust the interests of all parties involved in ecological protection based on the value of ecosystem services, protection costs, and development opportunity costs. In the field of wetlands, compensation is mainly given to entities that pay the price for protecting wetlands, and restrictions are imposed on destructive behaviors.

2.1.3 Collaborative Governance Theory

Collaborative governance theory emphasizes that multiple entities, including the government, the market, and society, can solve complex public problems through cooperative interaction. The core elements include multiple participation, resource sharing, consultation and cooperation, and common goals. Under this framework, the government forms a partnership with the market and social organizations to jointly participate in the decision-making and management of public affairs.

2.2 Wetland ecological compensation mechanism under collaborative governance theory

2.2.1 Applicability of collaborative governance theory in wetland ecological compensation

Collaborative governance theory provides a new perspective for wetland ecological compensation. Wetlands have the attributes of public goods and externalities, and their protection

International Journal of Advances in Engineering and Management (IJAEM)
Volume 7, Issue 07 July 2025, pp: 877-884 www.ijaem.net ISSN: 2395-5252

involves the interests of multiple parties. It is difficult for a single government or market model to resolve the contradiction between protection and development. Collaborative governance emphasizes the participation and cooperation of multiple subjects, which can integrate resources, coordinate interests, improve compensation efficiency and sustainability, and make compensation a governance process in which multiple subjects participate.

2.2.2 Wetland ecological compensation mechanism framework from the perspective of collaborative governance

Based on the theory of collaborative governance, a wetland ecological compensation mechanism framework is constructed that includes subject collaboration, mechanism collaboration and functional collaboration. Subject collaboration refers to the joint participation of the government, the market and society in compensation decision-making, implementation and supervision: the government leads policy formulation, capital investment and supervision; the market provides funds and technology; social organizations and communities participate in specific implementation. Mechanism collaboration integrates government, market and social compensation: the government realizes compensation through fiscal transfer payments, etc.; the market operates through ecological product value realization, carbon sink trading, etc.; and the society participates through public welfare donations, etc. Functional collaboration refers to the collaboration of the compensation mechanism in incentivizing protection, coordinating interests and promoting sustainable development, encouraging protection through economic incentives, balancing protection and development, and achieving the unity of ecological, economic and social benefits.

2.3 Research Design and Methods

2.3.1 Overview of the study area

Jiangsu Yellow Sea Wetland is located on the coast of Yancheng City, Jiangsu Province, with a total area of about 188,000 hectares. It is a key hub for East Asia-Australasian migratory birds, providing a stopover and wintering place for millions of migratory birds. The region is rich in biodiversity, with 442 bird species recorded, including 21 and 71 species of national first- and second-level protected animals, including 4 critically endangered species; it has the world's largest elk population, with more than 8,200 heads, accounting for about 70% of the world's total.

2.3.2 Data Sources and Research Methods

Data sources include literature (academic databases, government websites and reports), field research (inspections and interviews to obtain the current status and problems of compensation mechanisms), statistical data (statistical yearbooks of Jiangsu Province and Yancheng City, environmental bulletins) and cases (wetland governance cases at home and abroad). The research method uses literature analysis to construct a theoretical framework, case analysis to analyze the Yellow Sea wetland compensation mechanism, comparative research to draw on international experience, and empirical research to verify the feasibility of theories and countermeasures.

III. ANALYSIS ON THE CURRENT STATUS OF ECOLOGICAL COMPENSATION MECHANISM IN JIANGSU YELLOW SEA WETLAND WORLD NATURAL HERITAGE SITE

3.1 Overview of Jiangsu Yellow Sea Wetland World Natural Heritage Site

3.1.1 Geographical location and ecological characteristics

Jiangsu Yellow Sea Wetland is located on the coast of Yancheng City, in the center of the East Asia-Australasian migratory bird route. It has the largest and best-protected coastal wetland on the west coast of the Pacific Ocean. The area is a typical muddy coastal wetland, and the intertidal mudflats are one of the largest coastal wetlands in China and even in the world. The ecosystem includes muddy beaches, supratidal grass marshes, intertidal salt marshes, estuarine waters and wildlife habitats, providing rich food and habitats for water birds.

3.1.2 Biodiversity and conservation value

The heritage site has extremely rich biodiversity, with 4,692 species recorded, including 142 species under national key protection. It is the world's largest wintering ground for red-crowned cranes, with more than 1,000 wintering each year; the world's largest gene bank for elk, with a wild population of more than 3,500; and an important habitat for rare birds such as spoon-billed sandpipers, with 76 spoon-billed sandpipers observed at a single time, far exceeding the internationally important wetland standard. The ecosystem service value is significant, increasing from 13.268 billion yuan to 49.627 billion yuan from 1990 to 2020, with hydrological regulation

International Journal of Advances in Engineering and Management (IJAEM)
Volume 7, Issue 07 July 2025, pp: 877-884 www.ijaem.net ISSN: 2395-5252

services accounting for 80%, which is the core function.

3.1.3 Protection status and challenges

The protection work has achieved remarkable results. In 2013, it was included in the provincial fiscal transfer payment for key ecological function areas. In 2019, it was successfully included in the World Heritage List. Yancheng City is working hard to build the "World Natural Heritage" and "International Wetland City" brands. However, it still faces challenges: climate change leads to extreme weather affecting wetland ecology; human activities such as reclamation and breeding, industrial pollution, etc. cause wetland shrinkage and functional degradation; after the application for World Heritage, the contradiction between tourism development and ecological protection has become prominent.

3.2 Current status of ecological compensation mechanism in Jiangsu Yellow Sea Wetland World Natural Heritage Site

3.2.1 Ecological compensation policies and regulations

Jiangsu Province has initially established a policy and regulatory system for wetland ecological compensation. The 2016 Jiangsu Province Wetland Protection Regulations proposed the establishment of a compensation mechanism; the 2017 Lianyungang Coastal Wetland Protection Regulations involved compensation funds; the 2019 Yancheng Yellow Sea Wetland Protection Regulations clearly included compensation funds in the fiscal budget; in 2022, the General Office of the Jiangsu Provincial Party Committee and the General Office of the Provincial Government issued an opinion requiring the implementation of hierarchical wetland protection, clarifying compensation standards, and exploring offshore ecological compensation. In addition, supporting policies such as the Jiangsu Provincial Forest Ecological Benefit Compensation Fund Management Measures provide support.

3.2.2 Compensation subject and object

Compensation subjects include the government (central, provincial and municipal governments are the main providers), the market (enterprises and financial institutions participate through investment and purchase of ecological products), and society (non-governmental organizations, volunteers, and community residents participate through donations and voluntary services). Compensation objects include protectors (protected area management agencies, scientific research organizations, community residents, etc. who pay the cost of protection), victims (units and individuals damaged by wetland destruction), and beneficiaries (tourism and fishery practitioners who benefit from wetland services).

3.2.3 Compensation methods and funding sources

The compensation method is mainly financial compensation, including fiscal transfer payments, ecological compensation funds, etc. The transfer payment funds for key ecological function areas in Jiangsu Province have increased from 33 million yuan in 2013 to 1.5 billion yuan in 2022, with a cumulative vertical compensation of 13 billion yuan; there are also technical compensation (training to improve protection capabilities), policy compensation (tax incentives, etc.), and in-kind compensation (providing seedlings, etc.). Funding sources include fiscal funds (central and local special funds), social capital (corporate investment, donations, etc., such as Tiaozini received a "wetland biodiversity protection carbon sink loan" of 20 million yuan), and international funds (aid from international organizations, such as the Asian Development Bank Yancheng project).

3.2.4 Typical case analysis: Ecological compensation practice in Tiaozini Wetland

As a core area, Tiaozini Wetland has representative compensation practices. In terms of compensation for fishery withdrawal and wetland restoration, Dongtai City invested 70 million yuan in 2017 to demolish 17,000 mu of fish ponds, compensate retired fishermen and provide support for conversion. The coastal economic zone rents 720 mu of fish ponds as bird habitats every year. In terms of ecological compensation funds, the Provincial Coastal Group has implemented 114 million yuan, and has been increasing and releasing for 7 consecutive years to improve aquatic biological resources. In terms of carbon sink trading compensation, in 2025, Dongtai Branch will issue 20 million yuan of carbon sink loans, pledged with tidal flat carbon sink equivalents, and the annual carbon sink value exceeds 1.2 million yuan. In terms of community participation, through eco-tourism to drive employment, in 2024, Dongtai coastal tourism revenue will increase by 300% compared with before the World Heritage application, driving 12,000 jobs.

3.3 Problems with the ecological compensation mechanism of the Jiangsu Yellow Sea Wetland World Natural Heritage Site

3.3.1 Imperfect legal and regulatory system

International Journal of Advances in Engineering and Management (IJAEM)
Volume 7, Issue 07 July 2025, pp: 877-884 www.ijaem.net ISSN: 2395-5252

There is a lack of special laws and regulations. Jiangsu Province has no compensation laws for world natural heritage sites. The "Yancheng Yellow Sea Wetland Protection Regulations" are principled but lack implementation details. There is insufficient legal connection and insufficient coordination between existing laws and regulations, resulting in unclear basis for compensation implementation. The legal binding force is weak, and the penalties for destructive acts are insufficient, making it difficult to effectively curb destruction.

3.3.2 Insufficient coordination among compensation entities

The government is too dominant, with little participation from market and social forces, and the compensation mechanism is single and inefficient; departmental coordination is poor, the responsibilities of forestry, environmental protection and other departments are unclear, and policy implementation is poor; community participation is insufficient, and residents have low participation in compensation decision-making and implementation, and the right to know, participate and supervise are not fully guaranteed, affecting the sustainability of compensation.

3.3.3 Unscientific compensation standards and methods

The compensation standards are relatively low, based on protection costs and opportunity costs, and do not fully reflect the value of ecosystem services, making it difficult to incentivize protection; the compensation methods are single, mainly financial compensation, and the application of technology and policy compensation is insufficient, unable to meet diverse needs; the market mechanism is missing, and market-based methods such as realizing the value of ecological products and carbon sink trading are just beginning and have not yet formed a scale.

3.3.4 Issues on funding sources and efficiency of use

The funding sources are limited and rely on fiscal investment, with little participation of social capital and insufficient total amount; the use of funds is scattered across multiple departments and projects, with a lack of coordination and low efficiency; there is insufficient funding supervision and an imperfect supervision mechanism, with risks of misappropriation and abuse, which affects credibility.

IV. COMPARATIVE ANALYSIS OF GOVERNANCE MODELS OF INTERNATIONAL WETLAND HERITAGE SITES

4.1 US Wetland Compensation Bank Mechanism

The US wetland compensation bank mechanism is a market-driven model. By establishing a wetland compensation bank, developers purchase wetland credits to compensate for development damage. The wetland compensation bank generates credits by restoring and building new wetlands, and developers must purchase corresponding credits before obtaining permission. Its characteristics include market operation to internalize protection costs, strict government supervision, third-party certification of credit, and long-term monitoring of wetland functions. The inspiration for the Yellow Sea wetlands is to introduce market mechanisms to broaden funding sources, improve the legal system to provide guarantees, and strengthen supervision and evaluation to ensure the quality of compensation.

4.2 EU Wetland Contractual Mechanism

The EU Wetland Contract Mechanism is a collaborative governance tool involving multiple parties. The rights and responsibilities of each party are clarified through the signing of a contract. Wetland contracts are signed by governments, non-governmental organizations, communities, etc., and contain protection goals, measures, funds, etc. The characteristics are that multiple participation forms a joint force, the form is flexible to adapt to different wetlands, the result is oriented and focuses on effectiveness, and promotes knowledge sharing. Inspiration: The Yellow Sea Wetland should build a multiple participation mechanism, establish a consultation platform to coordinate interests, and strengthen community participation to achieve interaction between protection and development.

4.3 Botswana Okavango Delta Governance Model

The Okavango Delta is centered on multi-party cooperation, emphasizing cross-border cooperation and community participation. Its governance institutions include the Permanent Committee of the River Basin and government departments. Its characteristics are cross-border cooperation to coordinate water resource development, river basin funds to balance upstream and downstream interests, community participation to improve the level of benefits, and economic incentives for the development of ecotourism. Inspiration: The Yellow Sea Wetland should

International Journal of Advances in Engineering and Management (IJAEM)
Volume 7, Issue 07 July 2025, pp: 877-884 www.ijaem.net ISSN: 2395-5252

strengthen regional cooperation, establish a wetland protection fund, strengthen community participation, and develop eco-friendly industries to provide alternative livelihoods.

4.4 Common experiences of international wetland heritage site governance models

The common experience of international models includes the participation of multiple entities to form a joint force for protection, the introduction of market mechanisms to broaden funding sources, the improvement of laws and regulations to provide protection, the consideration of community interests to increase participation enthusiasm, and the establishment of long-term monitoring and evaluation mechanisms to adjust strategies.

V. OPTIMIZING THE ECOLOGICAL COMPENSATION MECHANISM OF JIANGSU YELLOW SEA WETLAND WORLD NATURAL HERITAGE SITE FROM THE PERSPECTIVE OF COLLABORATIVE GOVERNANCE

5.1 Improve the legal and regulatory system

Formulate special laws and regulations to clarify the principles, subjects and objects, standards and methods, sources of funds and management of compensation, and provide a basis for compensation. Improve supporting policies, including fiscal policies to increase transfer payments, industrial policies to encourage ecological industries, land policies to regulate wetland use, and science and technology policies to support innovation. Strengthen law enforcement supervision, establish a law enforcement cooperation mechanism to investigate and punish illegal acts, improve the supervision and evaluation mechanism, and establish a responsibility accountability mechanism to ensure the authority of the law.

5.2 Establishing a collaborative governance mechanism involving multiple entities

Strengthen the leading role of the government, formulate policies, regulations and plans, increase financial investment to establish a protection fund, establish a supervision and evaluation mechanism, and coordinate various aspects of work. Give full play to the role of market mechanisms, develop ways to realize the value of ecological products, promote carbon sink trading and promote innovative financial products, introduce the PPP model to attract social capital, and establish an ecological compensation market to improve allocation efficiency. Enhance social participation, cultivate social organizations for wetland protection, encourage public participation to enhance protection awareness, strengthen community cooperation to increase residents' participation, and establish an information disclosure platform to accept supervision.

5.3 Optimizing ecological compensation standards and methods

Scientifically determine the compensation standards, comprehensively consider the ecosystem service value (such as 49.627 billion yuan for Yancheng wetlands), protection costs (such as Tiaozini habitat leasing fees), opportunity costs (such as 114 million yuan in compensation funds) and regional development levels, and use the formula of "ecological value × adjustment coefficient + protection cost + opportunity cost" to calculate. Enrich the compensation methods, including financial compensation (such as fiscal transfer payments), technical compensation (such as protection technology training), policy compensation (such as tax incentives), in-kind compensation (such as seedling support), and employment compensation (such as ecotourism driving employment). Establish a dynamic adjustment mechanism to adjust the standards and methods every 3-5 years based on ecological value, economic and social development, policy environment and public willingness.

5.4 Innovative Fund Raising and Management Mechanism

Broaden the sources of funds, including fiscal funds (such as transfer payments from key ecological functional areas), social capital (such as carbon sink loans), international funds (such as Asian Development Bank projects), ecological product income (such as ecotourism income), and carbon sink trading income (such as the carbon sink value of Tiaozini). Innovate the fund management model, set up a special protection fund to coordinate funds, implement project management to clarify goals and budgets, establish performance evaluation to adjust the direction of funds, and strengthen supervision to ensure the safety of funds. Improve the benefit distribution mechanism, distribute according to the principle of "whoever protects, whoever benefits", implement differentiated distribution, establish a consultation mechanism, and disclose the distribution process and results.

5.5 Strengthen monitoring, evaluation, supervision and management

Establish and improve the monitoring system, including ecological monitoring (wetland area, water quality, etc.), social and economic monitoring (community income, etc.), and compensation effect monitoring (implementation of compensation measures). Improve the evaluation mechanism, regularly evaluate the wetland ecology, community conditions and compensation effects, introduce third-party evaluation to ensure objectivity, encourage participatory evaluation to improve comprehensiveness, and integrate ecological, economic and social factors. Strengthen supervision and management, and ensure that compensation is legal and standardized, policy implementation, transparent and open, and subject self-discipline through legal, administrative, social and self-supervision.

VI. CONCLUSION AND OUTLOOK

6.1 Research Conclusions

The collaborative governance theory provides a new perspective for wetland ecological compensation, emphasizing the participation and cooperation of multiple subjects, integrating resources and coordinating interests. The Yellow Sea wetland compensation mechanism should achieve the coordination of subjects, mechanisms and functions. The Jiangsu Yellow Sea wetland compensation mechanism has been initially established, but there are still deficiencies, such as an imperfect policy and regulatory system, insufficient subject coordination, unscientific standards and methods, and problems with fund management. The international wetland governance model provides useful reference, and multiple participation, market mechanism, legal guarantee, community consideration and monitoring and evaluation are common experiences. The optimization path from the perspective of collaborative governance is systematic and targeted, including improving laws and regulations, building multiple governance, optimizing standards and methods, innovating fund management, and strengthening monitoring and supervision, which can effectively solve current problems.

REFERENCES

[1]. Zhang Renshun, Wang Yanhong, Li Jialin. Assessment of ecosystem service value of Jiangsu coastal wetlands[J]. Acta Geographica Sinica, 2020, 75(5): 1023-1038.

[2]. Lu Jianjian, He Wenshan, Tong Chunfu. Research progress on protection and management of wetland ecosystems in China[J]. Acta Ecologica Sinica, 2019, 39(12): 4201-4210.

[3]. Zhou Zhiren, Chen Qingyun. Collaborative governance: theory, model and dilemma[J]. Journal of Peking University (Philosophy and Social Sciences), 2019, 56 (1): 149-157.

[4]. Cui Shenghui, Li Fangyi, Huang Yunfeng. Theoretical basis and practical exploration of ecological compensation mechanism[J]. Acta Ecologica Sinica, 2020, 40(3): 761-770.

[5]. Lv Zhongmei, Liu Chao. Legislative Thoughts on Ecological Compensation System[J]. China Legal Science, 2019 (2): 125-142.

[6]. Wang Junfeng, Li Shuangcheng. Theoretical basis and practical model of ecological compensation[J]. Geographical Research, 2018, 37(8): 1503-1516.

[7]. Liu Hongyu, Li Zhaofu, Zhang Shikui. Assessment of ecosystem service value of coastal wetlands in Yancheng, Jiangsu Province[J]. Journal of Natural Resources, 2019, 34(6): 1210-1222.

[8]. Jiangsu Academy of Forestry Sciences. Research on ecological compensation mechanism of wetlands in Jiangsu Province[J]. Journal of Jiangsu Forestry Science and Technology, 2020, 47(2): 1-6.

[9]. International Union for Conservation of Nature. Guidelines for the Management of World Natural Heritage Sites[M]. Beijing: China Environmental Science Press, 2018.

[10]. National Wetland Research Center. Wetland Compensation Bank Guidelines[M]. Washington: U.S. Department of the Interior, 2019.

[11]. Chen Ruilian, Liu Yaping. Collaborative governance: theoretical basis and Chinese practice[J]. Academic Research, 2018 (4): 64-71.

[12]. Wang Ming, Cai Zhihong, Wang Chunting. Models and paths for social organizations to participate in ecological governance[J]. Chinese Public Administration, 2019 (2): 58-63.

[13]. Zheng Du, Fu Bojie, Chen Liding. Research progress on China's eco-geographical regional system[J]. Acta Geographica Sinica, 2020, 75(1): 1-14.

[14]. LI Xiubin, ZHAO Yuluan. Research progress on the ecological and environmental effects of land use

change[J]. Acta Geographica Sinica, 2019, 74(9): 1789-1804.
[15]. Zhang Jianbin, Zhang Jingxiang. World Natural Heritage Site Governance Model and Chinese Practice[J]. Urban Planning, 2018, 42(7): 55-62.
[16]. Wang Jinnan, Zhang Huiyuan, Ge Chazhong. Ecological compensation mechanism design and policy innovation[J]. Chinese Population, Resources and Environment, 2019, 29(1): 1-8.
[17]. Elinor Ostrom. The Governance of Public Affairs[M]. Translated by Yu Xunda and Chen Xudong. Shanghai: Shanghai Translation Publishing House, 2019.
[18]. Gerry Stocker. Polycentric Governance Theory and Its Application[J]. Marxism and Reality, 2018 (3): 112-119.
[19]. Yu Keping. Governance and Good Governance[M]. Beijing: Social Sciences Academic Press, 2020.
[20]. [20] Zhang Kangzhi. Collaborative Governance Theory[M]. Beijing: China Renmin University Press, 2019.
[21]. Kong Fanbin, Xu Zhengsong. Report on the Development of Ecological Compensation System in China[M]. Beijing: Science Press, 2020.
[22]. Li Wenhua, Liu Moucheng. Research progress on ecosystem service value assessment[J]. Journal of Natural Resources, 2019, 34(2): 209-222.
[23]. School of Wetland, Yancheng Normal University. Research Report on Natural Heritage of Yellow Sea Wetland in Yancheng, Jiangsu Province[R]. Yancheng: Yancheng Normal University, 2020.
[24]. Jiangsu Provincial Forestry Bureau. Jiangsu Provincial Wetland Protection Plan (2018-2025)[Z]. Nanjing: Jiangsu Provincial Forestry Bureau, 2018.
[25]. Yancheng Natural Resources and Planning Bureau. Yancheng Yellow Sea Wetland Protection Plan[Z]. Yancheng: Yancheng Natural Resources and Planning Bureau, 2019.
[26]. Nanjing Institute of Geography and Limnology, Chinese Academy of Sciences. Research on the protection and restoration of Jiangsu coastal wetland ecosystem[R]. Nanjing: Nanjing Institute of Geography and Limnology, Chinese Academy of Sciences, 2020.
[27]. Jiangsu Provincial Bureau of Statistics. Jiangsu Provincial Statistical Yearbook (2020)[Z]. Beijing: China Statistics Press, 2020.
[28]. World Wildlife Fund. Yellow Sea Ecoregion Conservation and Sustainable Use Report[R]. Beijing: World Wildlife Fund, 2019.
[29]. Chen Xi, Zhou Qixing. Research progress on wetland ecosystem service functions and value assessment[J]. Chinese Journal of Applied Ecology, 2019, 30(5): 1735-1744.
[30]. Lü Xianguo, Yang Qing. Research progress on protection and management of wetland ecosystems in China[J]. Acta Ecologica Sinica, 2020, 40(1): 1-9.
[31]. Cui Baoshan, Liu Xingtu. Research progress on wetland ecosystem management[J]. Journal of Natural Resources, 2019, 34(3): 433-443.