

Study on the Coordinated Governance of Ecological Integration in the Yangtze River Delta of China

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Abstract

Higher quality integration of the Yangtze River Delta in China cannot be separated from coordination and cooperation in the field of ecological governance. Ecological integration is an important dimension and content in the process of regional integration in the Yangtze River Delta in the future. Ecological integration mainly uses the overall concept and thinking to solve ecological problems by means of multi-agent participation, interest coordination and cooperation, which coincides with the theory of collaborative governance. Therefore, collaborative governance has become the evolution trend of environmental governance in the Yangtze River Delta. Under the guidance of collaborative governance theory, it is necessary to strengthen the concept of multi-agent collaborative governance; Coordinate the interest relationship between the governance subjects; Build a sound collaborative governance mechanism. With a view to improving the coordinated governance of regional ecology and realizing and ensuring ecological integration.

Keywords

Yangtze River Delta Region; Ecological Integration; Collaborative Governance.

1. Introduction

Ecological integration is an important dimension and content of high-quality integration in the Yangtze River Delta region of China. Ecological integration deals with local and global ecological problems from a global perspective, and jointly constructs a regional environmental protection system through multi-agent participation, interest coordination, and cooperation and consultation, jointly formulates regional environmental protection and prevention system standards, and adopts common policies and measures to solve ecological problems. In recent years, the Yangtze River Delta region has made a lot of beneficial explorations in promoting the process of ecological integration. The synergy between the main bodies plays a key role in the environmental governance of the Yangtze River Delta. At present, it is still very immature, and there are various problems to be solved. These indicate that the breadth and depth of the coordinated governance of the ecological environment in the Yangtze River Delta is far from enough, and there is much room for improvement in the future. Therefore, this paper analyzes the problems and constraints of environmental collaborative governance in the Yangtze River Delta, and puts forward countermeasures and suggestions in combination with the synergy theory to explore the innovative path of environmental collaborative governance in the Yangtze River Delta.

2. Ecological Integration and Collaborative Governance Theory

The ecological integration of the Yangtze River Delta region in China includes two meanings[1]: first, the economic development of the Yangtze River Delta region must be carried out simultaneously with the ecological environment protection; Second, given that the economic development of some cities in the Yangtze River Delta region is characterized by homogeneous

competition and the industrial transformation is moving from Shanghai to the surrounding areas, the Taihu Lake basin in the region involves southern Jiangsu and northern Zhejiang, and the Taipu River basin runs through the Yangtze River, Zhejiang and Shanghai, connecting the Taihu Lake and Huangpu River, so it is necessary to comprehensively promote the ecological integration of the region from the perspective of coordinated governance.

Collaborative governance can be understood as that the government and the public, enterprises, social organizations and other multiple entities, under certain structure and institutional arrangements, work together to achieve orderly governance of public affairs and work together to achieve public goals [2]. Different from the traditional governance model, the collaborative governance theory advocates coordination and cooperation between governments, governments and the public, enterprises and social organizations to jointly face increasingly complex public affairs. Its main content is to achieve coordination among governments. The government plays a leading role in the governance of public affairs. In the face of complex public issues, governments need to work together through equal consultation and coordination. Secondly, the government also needs to guide the public, enterprises and other non-governmental entities to actively participate in public governance, increase their voice, encourage them to assume corresponding responsibilities, and contribute to the realization of public goals.

Therefore, through the above analysis, the theory of collaborative governance and ecological integration have a certain consistency. The report of the 19th National Congress of the Communist Party of China pointed out that it is necessary to "build an environmental governance system with the government as the leading role, enterprises as the main body, social organizations and the public participating together", that is, to achieve the collaborative governance of the environment [3]. Therefore, it will be a beneficial attempt to explore the construction of ecological integration in the Yangtze River Delta with the theory of coordinated governance.

3. Analysis of the Current Situation of Environmental Collaborative Governance in the Yangtze River Delta

3.1. Cooperative Treatment of Air Pollution

The coordinated control of regional air pollution began in 2008. In 2008, Jiangsu, Zhejiang and Shanghai provinces and cities jointly signed the Cooperation Agreement on Environmental Protection in the Yangtze River Delta Region, and proposed a number of environmental governance cooperation plans. The agreement proposes to improve the environmental access standards, gradually unify the charging standards of enterprise pollution charges, and strengthen the control of regional air pollution. In 2012, two provinces and one city signed the "2012 Yangtze River Delta Joint Prevention and Control Cooperation Framework for Air Pollution" in Zhejiang Province, reaching a consensus on the development of joint prevention and control plans for air pollution, strengthening the exchange and cooperation of air prevention technology and management, taking the lead in establishing PM_{2.5} monitoring points in key pollution prevention and control areas in the Yangtze River Delta, and jointly solving regional air pollution problems. In January 2014, the Yangtze River Delta Air Pollution Prevention and Control Cooperation Group was established in Shanghai and held its first meeting, marking the official launch of the Yangtze River Delta air pollution prevention and control cooperation mechanism. At the meeting, the principles of cooperation across the Yangtze River Delta were determined as "consultation and overall planning, responsibility sharing, information sharing, joint prevention and control".

3.2. Cooperative Treatment of Water Pollution

In December 2016, the Yangtze River Delta Water Pollution Prevention and Control Cooperation Group was established and held its first meeting, which meant that the joint prevention and control of water pollution in the Yangtze River Delta was fully launched. In 2018, the second meeting of the Yangtze River Delta Regional Water Pollution Prevention and Control Cooperation Group was held in Suzhou. The meeting exchanged in-depth information on the regional water pollution prevention and control cooperation, and emphasized that environmental governance should highlight key and difficult points, improve the water pollution collaborative governance mechanism, and maintain water and sewage at the same time. In order to coordinate the interests between different regions, the Yangtze River Delta took the lead in exploring the ecological compensation mechanism in the treatment of transboundary water pollution. For transboundary basins, the water quality benefit areas should give certain economic compensation to the water quality contribution areas to balance the interest disputes between different regions.

4. Dilemma Analysis of Environmental Collaborative Governance in the Yangtze River Delta

4.1. The Dilemma of Coordinated Governance between Governments

4.1.1. Low Level of Institutionalization

Although the environmental pollution in the Yangtze River Delta has improved, the treatment effect is not significant enough, and the situation is still grim [4]. The reason is that the coordinated governance of the regional environment is still very immature, and there are problems to be solved in both the inter-governmental coordination and the coordination between the government and non-governmental entities. It can be seen from the current situation of the above coordinated environmental governance in the Yangtze River Delta that the governance has the characteristics of periodicity and transience. Most of the existing measures are temporary actions in a special period or post-event governance for pollution events, and most of them are formed under the pressure of the central administrative order. There are few endogenous coordinated governance actions among local governments [5]. There are few general laws and regulations and actions for regional environmental coordinated governance, and the coordinated governance between governments does not start from eliminating the source of pollution, rather than addressing the symptoms. Therefore, the coordinated environmental governance of the three provinces and one city governments in the Yangtze River Delta is not a routine operation, has a non-long-term effect and low level of institutionalization.

4.1.2. Difficulties in Coordination

In the face of regional environmental pollution, three provinces and one city are prone to the phenomenon of inconsistent pace, which hinders the coordination between governments [6]. There are differences not only in environmental governance capacity, but also in inter-governmental communication. In addition, due to the restriction of geographical boundaries between regions for a long time, there is a problem of poor communication, and it is difficult to realize the full exchange and sharing of information and resources, which leads to the problem of information asymmetry in inter-governmental coordination.

4.2. Cooperative Governance Dilemma between Enterprises and Government

4.2.1. The Initiative of Enterprise Collaboration is not Strong

At present, the Chinese government mainly adopts the form of administrative orders [7], regular law enforcement inspections and surprise law enforcement actions to regulate the

pollution discharge behavior of enterprises through specific administrative measures such as fines, business suspension and rectification. Enterprises participate in environmental governance by passively executing orders or accepting inspections. The environmental governance of the Yangtze River Delta is no exception. Enterprises are in a very passive state in environmental governance. They usually take actions to regulate their own behavior under the external constraints of the government, while the voluntary actions taken are very few.

4.2.2. Lack of Guarantee for Enterprise Collaboration

The measures taken by enterprises in environmental governance, especially those proved to be beneficial to regional pollution control, have not been determined in the form of authoritative policies and regulations. In terms of organizational structure, there are few organizations in the Yangtze River Delta for the overall environmental collaborative governance, and there are few organizations that provide a platform for enterprises. Enterprises participate in environmental governance mainly through the prevention and control of water pollution and air pollution. Enterprises still participate in governance temporarily in a loose and passive form, and fail to provide sufficient platforms for enterprises.

4.3. Collaborative Governance Dilemma of the Public, Social Organizations and the Government

4.3.1. Low Public Participation

The environmental problems in the Yangtze River Delta have had a serious impact on the lives of the public in the region. The public's motivation to participate in environmental governance should be sufficient, but in practice, the public's participation in environmental collaborative governance is very low. For many publics, environmental governance is only a slogan, and few people really consciously take action. The public lacks the guidance of policies and regulations in environmental governance, and lacks rigid regulations on the specific governance behavior of the public. There are also few organizations that integrate the public into the environmental governance process.

4.3.2. Weak Social Organization

Compared with government environmental protection organizations, the influence and popularity of environmental protection social organizations are much smaller, and it is difficult to obtain a large amount of sustained financial support. In addition, their own enthusiasm to participate in environmental governance is also not high. They often take actions under public opinion pressure or government pressure, and there are not many endogenous actions similar to special actions. Therefore, on the whole, environmental protection organizations have not fully played their role in the coordinated environmental governance of the Yangtze River Delta, and their strength is weak.

5. Analysis on the Factors of the Dilemma of Environmental Collaborative Governance in the Yangtze River Delta

5.1. Conceptual Factors

5.1.1. The Government's Awareness of Collaborative Governance is not Strong

First of all, local governments pay insufficient attention to environmental governance. Affected by the concept of "pollution first, treatment later" for a long time, Governments around the Yangtze River Delta have not fully understood the strategic importance of environmental protection. Secondly [8], the coordination between different regions has not yet formed a routine operation. It is often under the pressure of the superior government or external pressure to increase the intensity of environmental coordinated governance when major pollution or important events occur. Therefore, the government's awareness of environmental

protection and cooperative governance with other subjects is not strong, which restricts the current development of environmental collaborative governance in the Yangtze River Delta.

5.1.2. Weak Awareness of Participation of Non-Governmental Governance Subjects

Enterprises mainly rely on government regulation, passively regulate their own behavior, and participate in environmental governance [9]. Few enterprises list environmental protection as an important item in their daily operation, and they are usually dealing with external pressure. The same is true for social organizations. In the Yangtze River Delta pollution control, there are not many spontaneous actions, and the internal organization is not standardized enough, resulting in a small impact on government decision-making. In short, enterprises, the public and social organizations have not fully realized their responsibilities in environmental protection, and their awareness of participating in environmental governance needs to be improved.

5.2. Interest Factors

5.2.1. Interest Game between Governments

Local governments are mainly concerned about the development of local economy and the realization of local interests. When environmental governance brings adverse effects on economic interests, the government often reduces the treatment of pollution. Especially in a region, there is also competition between local governments for interests and political promotion of government officials. Local governments compete for the limited resources in the region to achieve better economic development, and have a good performance in the performance evaluation, so as to maximize the local interests and the personal interests of government officials.

5.2.2. Conflict of Interests between Government and Non-Governmental Entities

One manifestation of the government's unwillingness to govern the environment is the concealment of environmental information. For the sake of its own interests, the government partially publicizes environment-related information. As a result, the public and social organizations have little understanding of environmental pollution and environmental governance, and the role of supervision cannot be fully played. At the same time, this also leads to the public and social organizations generally participate after the event and do not know the situation in advance. In addition, the government has mishandled the public's environmental demands [10]. When the public's demands endanger the government's interests, the government chooses not to meet the public's needs to protect its own interests. As a result, the appeal of the public and social organizations for the right to know has not been satisfied, and there is a conflict of interest with the government, and it is difficult to cooperate with the government to fully play a role in environmental governance.

5.3. Mechanism Factors

5.3.1. The Effectiveness of Joint Prevention and Control Mechanism is not Enough

Most of the agreements reached around the country on joint prevention and control are temporary. In specific actions, the joint monitoring of regional pollution failed to form a long-term system. This, to a certain extent, exacerbates the information asymmetry between regions, leading to the inability of regions to govern from the perspective of the whole region. There is no overall planning on pollutant discharge standards among different regions and different standards on regulating enterprise behavior, which makes it more difficult for all regions to jointly crack down on enterprise illegal behaviors, and even there are lax and disorderly enforcement. To sum up, the joint prevention and control mechanism of pollution in the Yangtze River Delta needs to be improved.

5.3.2. Lack of Information Sharing Mechanism

There is no clear authoritative regulation on the subject, content and scope of regional environmental governance information sharing. The lack of external constraints on information sharing results in that information exchange between different regions mainly depends on the consciousness of the main body, while in the case of insufficient endogenous power, communication between different regions is not smooth. Moreover, there is a lack of platform for information sharing of environmental governance in the Yangtze River Delta. The sharing of information between governments and the disclosure of information by governments to non-governmental entities need certain media to achieve. There is no comprehensive and specialized platform to accommodate the environmental information of the whole region.

5.3.3. Imperfect Law Enforcement and Supervision Mechanism

First of all, the superior government lacks supervision over the local governments' compliance with the law, which leads to the relaxation and laxity of local governments' behavior. Secondly, there should also be a relationship of mutual supervision between the governments of three provinces and one city. At present, no cross-regional law enforcement and supervision mechanism has been established between different regions, and the governance behaviors of each other are lack of restraint and restraint. In addition, the Yangtze River Delta government's law enforcement and supervision of enterprise behavior mainly focuses on non-long-term law enforcement and inspection activities, and the supervision of enterprises is far from enough. The regular disclosure of environment-related behaviors and information such as enterprise pollutant emissions has not formed a system, and neither the government nor the public has fully played a supervisory role.

5.3.4. Imperfect Ecological Compensation Mechanism

First, in general, the coverage of ecological compensation in the Yangtze River Delta is relatively small, and it is still in the process of pilot and gradual promotion. Secondly, the ecological compensation in the Yangtze River Delta is insufficient and its effectiveness is not high. At present, the vertical ecological compensation in the Yangtze River Delta mainly depends on the support of transfer payment from the central government or local government, and the government is the main compensation subject. As a rational economic man, the local government, facing the pressure of ecological compensation, is likely to choose economic development rather than ecological protection, and will not act on ecological compensation.

6. Innovative Path of Environmental Collaborative Governance in the Yangtze River Delta

6.1. Strengthen the Concept of Collaborative Governance

6.1.1. Strengthen the Concept of Government Collaborative Governance

The government should first set an example and further cultivate its own concept of ecological protection and coordinated environmental governance. The central government should increase the publicity of ecological protection, and provide protection and external constraints to the local government's environmental governance. At the same time, we should establish a monitoring and assessment mechanism for all localities, and increase the assessment of the effectiveness of environmental governance when assessing the performance of all localities. In this way, local governments have to pay attention to environmental protection and increase the proportion of environmental governance in local development planning. In addition, local governments need to give full play to their initiative. Give full play to their role and provide more resources and opportunities for regional environmental pollution control.

6.1.2. Improve Enterprises' Awareness of Environmental Responsibility

Local governments should first stipulate the environmental responsibilities of enterprises in the form of policies and regulations, and specify the pollutant emission standards of various types of enterprises. At the same time, we should improve the punishment system for enterprises and strengthen law enforcement. Secondly, the government needs to improve the access and retirement mechanism of enterprises, and strictly approve the access and retirement of enterprises in accordance with regulations. In addition, the government needs to innovate in ways and means to regulate enterprise behavior and stimulate the initiative of enterprise environmental governance. The government can encourage enterprises to regulate their behavior by comprehensively using market and economic means such as price, tax and credit.

6.1.3. Improve the Sense of Autonomy of the Public and Social Organizations

The government can first use the role of policies and regulations to promote environmental protection and create a positive social atmosphere for environmental protection. The government needs to improve the environmental policy of the Yangtze River Delta, analyze the overall environmental situation of the region, and make clear provisions on the responsibilities of each subject. In addition, the government can set up environmental protection hotlines and environmental protection mailboxes for the public to express their environmental demands, and can also open letters and visits windows in local environmental protection agencies to understand the public's needs more directly and effectively. In order to enhance the environmental protection concept of environmental protection social organizations, the government should first clearly define the nature and role of non-governmental organizations with policies, and formulate corresponding rules to regulate the registration and daily management of non-governmental organizations, so as to improve the self-perception and authority of non-governmental organizations.

6.2. Coordinate the Interest Relationship between the Environmental Governance Subjects in the Yangtze River Delta

6.2.1. Deepen the Value Orientation of Interest Coordination among Subjects

Enterprises, the public and environmental protection non-governmental organizations should also deepen the value orientation of regional public interests, start from the overall interests, not limited to their own interests, and achieve good coordination with various subjects. The government should also strengthen the guidance of these non-governmental entities, especially in the coordination with enterprises. On the basis of setting an example and not rigidly adhering to local economic development, the government should guide enterprises to focus on regional public interests and actively strengthen pollution control.

6.2.2. Improve the Policies and Regulations of Interest Coordination among Subjects

Formulate specific coordination rules for specific issues and the interest relationship between different subjects. For specific interest issues in regional environmental pollution control, for example, when dealing with cross-regional water pollution in Taihu Lake, Yangtze River, Huaihe River, etc., a common agreement should be formed on the subject of interest, the principle of coordination, and the standard of interest compensation. At the same time, when the government formulates interest coordination laws and regulations, it needs to include non-governmental entities. The government also needs to have detailed provisions for coordinating the interest relationship with them, and formulate special laws when necessary.

6.3. Build a Sound Yangtze River Delta Environmental Collaborative Governance Mechanism

6.3.1. Strengthen the Joint Prevention and Control Mechanism of Collaborative Governance

To strengthen the joint prevention and control mechanism of environmental governance in the Yangtze River Delta, the first thing to do is to further fix the joint prevention and control in the form of laws and regulations, and enhance its authority and long-term effectiveness. The principals of the four governments in the Yangtze River Delta can formulate the Joint Prevention and Control Agreement on Environmental Pollution in the Yangtze River Delta on the basis of consultation through the pollution prevention and control cooperation group. Secondly, joint law enforcement needs to be strengthened among regions. All regions need to jointly crack down on environmental violations in the region and coordinate the handling of environmental disputes through joint investigation. In addition, all parts of the Yangtze River Delta need to improve the environmental protection performance assessment system. In the process of implementing the overall plan, all localities need to accept the supervision of the leading group in the Yangtze River Delta Pollution Prevention and Control Cooperation Group, and the leading group will regularly assess the implementation of the joint prevention plan and the completion of the governance objectives in all localities. This has increased the pressure on local governments to implement, and is also conducive to improving the effectiveness of the environmental joint prevention and control mechanism in the Yangtze River Delta.

6.3.2. Improve the Ecological Compensation Mechanism for Collaborative Governance

We will improve the financial transfer payment system and further promote the government's vertical ecological compensation. Local governments in the Yangtze River Delta should make full use of the financial support of the central government, and at the same time, increase the scope and intensity of compensation for the stakeholders who have suffered damage from environmental governance in the region. Local governments need to uphold the concept of green and sustainable development, increase financial investment in environmental governance, and provide reasonable, timely and effective compensation to stakeholders.

Improve horizontal ecological compensation between local governments. The Yangtze River Delta regions should first formulate inter-regional ecological compensation regulations according to the ecological compensation policies issued by the central government and the relevant contents of ecological compensation in the interest coordination laws and regulations jointly formulated by all regions, and clearly define the compensation subjects, standards, principles and methods.

6.3.3. Establish Information Sharing Mechanism for Environmental Governance

Regional environmental protection websites also include enterprises, the public and other non-governmental governance entities in information sharing. Enterprises can regulate and adjust their own behaviors according to environmental policies and regional environmental conditions, and also accept supervision. On the basis of fully understanding regional environmental protection information, the public can more effectively and actively perform environmental protection obligations and participate in regional environmental coordinated governance. At the same time, the public can fully supervise regional environmental governance through this platform, and can reasonably, timely and effectively express environmental protection appeals and suggestions.

6.3.4. Improve the Law Enforcement and Supervision Mechanism of Collaborative Governance

We need to strengthen the effectiveness of the law enforcement and supervision mechanism and improve the efficiency of the coordinated governance actions of the governance bodies in

the Yangtze River Delta. Three provinces and one city in the Yangtze River Delta have transferred personnel from their respective environmental law enforcement and supervision organizations to form an environmental law enforcement and supervision team in the Yangtze River Delta. The regional law enforcement and supervision team is under the vertical management of the superior environmental law enforcement and supervision department. On the basis of consulting the opinions of the government, enterprises and the public, the law enforcement and supervision team formulated the regional environmental law enforcement and supervision norms, which mainly include the subject, object, method, and standard of law enforcement and supervision, and thus the regional environmental law enforcement and supervision mechanism was formally formed. In the environmental law enforcement and supervision in the Yangtze River Delta, we should first ensure the comprehensive and systematic nature of law enforcement and supervision. Different supervision and inspection methods, standards and administrative punishment measures need to be formed for different subjects such as government, enterprises, the public and social organizations. Secondly, the strength of law enforcement supervision needs to be strengthened.

7. Conclusion

The purpose of this paper is to clarify the basic model of the local government cooperation dynamic system in the ecological integration governance of the Yangtze River Delta in China, and explore its constituent elements and their interactions. Then explore the resistance factors and deep-seated reasons in the integrated governance, and put forward targeted countermeasures and suggestions accordingly. Through research, it is found that it is not enough to rely on top-level design, technology and capital investment for ecological integration governance in the Yangtze River Delta. In the current government led environmental governance model, effective environmental governance requires local governments to first seek conceptual consensus on ecological value identification, and then adjust government functions and actions. Therefore, it is particularly necessary to take the cooperative power of local government governance as the logical starting point of the study. At the same time, paying attention to the cooperative power of the government in environmental governance not only provides a new perspective for the ecological integration governance of the Yangtze River Delta, but also has certain guiding significance for local governments to strengthen economic, political and cultural construction cooperation.

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