Chapter 8 The Exploration on the Path of Improving the Performance of Regional Environmental Policy in the Development of Regional Integration in China Based on the Perspective of Policy Network



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Abstract Environmental governance based on regional integration is guided by regional environmental public goals, coordinating pluralistic governance subjects, and solving the contradiction between regional holistic governance and decentralized governance. The Chinese regional environmental policy is aimed at promoting the optimal allocation of regional resources, solving regional problems, coordinating interregional relations and realizing the sustainable development of environmental governance. This paper analyzes the factors that affect the performance improvement of regional environmental policy from three dimensions: Policy target system, policy implementation process and policy implementation effect, and probes into the path of improving regional environmental policy performance. There are the paths of constructing a more perfect regional environmental policy objective system, promoting the overall management of regional environmental policy implementation process, strengthening the construction of regional environmental policy performance evaluation system basing on the perspective of policy network.

Keywords Regional integration · Regional environmental policy · Policy performance

8.1 Introduction

In recent years, although the local government has continuously adjusted and transformed the industrial structure, the ecological and environmental problems such as air pollution that seriously endanger human health still exist within a certain range. The report of the 19th National Congress pointed out: "China's regional development

coordination has been strengthened in the past five years. Based on the consciousness and initiative of implementing the green development concept, the ecological civilization construction has achieved remarkable results (Jinping 2017a)". With the advancement of the regional integration process, the uncoordinated and inadequate contradictions between the continuous development of local economic society and people's demand for green ecological environment have become increasingly prominent. So, "we still need to unswervingly implement the concept of innovation, coordination, green, openness, and sharing, implement regional coordinated development strategies, and establish a more effective regional coordination and development mechanism (Jinping 2017b)".

With the advancing of the society there exists the risk and risk contagion in each social domain including the environmental policy system. When numerous environmental policy have been made in Chinese local government in the past years, traditional and local legal and institutional arrangements for Chinese environmental policy making have not lived up to the solving the environmental problems fully. Scholar Yu Keping proposed the modern national governance system is an organic, coordinated, dynamic and holistic institutional operating system (Keping 2014). Therefore, regional environmental governance is an important content and priority area for regional integration development. How to improve regional environmental policy performance is important challenges and challenges that need to be solved.

8.2 The Regional Environmental Policy and Policy Risk

8.2.1 The Regional Environmental Policy Connotation

In the conceptual category of economics, the region is usually understood as the spatial carrier of human economic activity (Yamei 2013a). It is an infinitely inseparable economic and social complex created by human economic activities with specific regional components (Biding 1989). With the in-depth development of China's regional integration, the economic and social development in the region has become increasingly close. In particular, ecological and environmental problems such as air pollution in the region present the complexity and risk of cross-border public affairs. Environmental governance based on regional integration is a complex system engineering. Its essence is to reach the regional environmental governance public goals across administrative management boundaries, coordinate the functions of multiple governance entities and behavioral standards, and resolve the contradiction between environmental overall governance and decentralized governance within the region.

Regional environmental policy aims to promote the spatial allocation of regional resources, narrow regional gaps and solve regional problems in regional integration development. The local government formulates policies for regional differences

and regional issues within the region in order to coordinating inter-regional relations, improving the regional environmental policy system and acquiring sustainable development of environmental governance. Faced with the rapid growth of regional environmental governance pressure, we should optimize the regional environmental governance path based on the overall governance perspective, with a view to further improving the performance of regional environmental governance policies.

8.2.2 The Regional Environmental Policy Risk

Along with the development of the society and the technology, the various regional environmental policy risks are increasing environmental governance. Usually, the complicated organizations and relations of the policy system will use the integrative operational mode for promoting the systemic efficiency. Although that will help the regional environmental policy system advance the ability of withstanding the risk, the risk contagion will nearly cannot be avoided as the benefit conflict among the interest groups in the system. It will have the result of the impact of the risk pervasion.

The regional environmental policy risk contagion show itself as the characteristic of the snowball. The risk will transfer from the place without surveillance to the supervised place, or shift between the different places, which named the risk contagion in the regional environmental policy system and cross-domain policy system. The place firstly gives birth to the policy risk will be called the "contagious source". And the place infected by the contagious source will be called the "infected area". The crisis of the policy risk will be soon extended into the whole system by the impression of the contagious source's chain-reacting. The policy risk contagion will lead to the systemic environmental governance risk and increase the instability of the whole environmental governance system which will cause the environmental governance crisis. So the risk contagion will threaten the environmental governance systemic safety heavily and damage the benefits of the public and the society in environmental governance. To control the policy risk contagion effectively is the most important content in the environmental governance risk managing.

8.3 Case in Point: The Regional Environmental Policy in Chinese Yangtze River Delta Region

8.3.1 The Gradual Progress and Implementation of Air Pollution Governance Policy in Yangtze River Delta Region

The Yangtze River Delta region is a region that actively plays a leading role in carrying out the strategic planning of green regional environmental governance in order to

promoting the modernization of regional governance system and governance ability. The outline of Regional Integration Development Plan of the Yangtze River Delta in 2019 puts forward that the integration development of the Yangtze River Delta should closely revolve around "integration" and "high quality" in order to promoting the integrated construction of key areas such as Ecological Environment.

At present, the Yangtze River Delta region has made a positive exploration on the path of air pollution linkage control by using a good consultation mechanism of ecological environment protection, which has promoted the integration of regional environmental management. In order to further improve the performance of linkage governance of air pollution, provinces and cities in the Yangtze River Delta region have issued a series of related policies (Fig. 8.1). The goal and orientation, implementation path and development direction of air pollution linkage governance in the Yangtze River Delta region have been gradually clarified. It has completed the regional air pollution control system top-level design basically. To a certain extent, it promotes the integration of regional environmental governance in the Yangtze River Delta, promotes the deep cooperation of urban agglomeration in ecological environment linkage governance, and makes a beneficial exploration for the improvement of regional environmental governance policy performance.

8.3.2 Factors Affecting the Performance of Regional Environmental Policy Implementation: Based on the Perspective of Policy Risk Management

With the development of regional environmental governance integration, regional environmental policies are becoming more and more important. Although local governments have been making unremitting efforts to achieve regional balance and sustainable development, they have achieved certain environmental governance results and accumulated useful experience. However, there are still some problems in the process of formulating and implementing the current regional environmental policy basing on the perspective of policy risk management.

8.3.2.1 The Target System of Regional Environmental Policy Needs to be Further Improved

The construction of the target system of regional environmental policy is not perfect, which affects the effect of policy implementation to some extent. Firstly, there is a lack of systematic regional environmental policy goals. The regional environmental policy system needs multi-level policy objectives that can be linked to each other, so that policy synergies can be formed in different stages of policy evolution. Secondly, the principles of regional environmental policy objectives are relatively simple. The regional environmental policy objectives are mainly based on

time	content	main target
2008	《Cooperation Agreement on Environmental Pro- tection Work in the Yangtze River Delta Region》	It was promoting the coordinated governance of environmental pollution in the Yangtze River Delta.
2013	《China's Air Pollution Prevention and Control Action Plan》	It was required to establish a coordination mechanism for air pollution prevention and control in Yangtze River Delta regions.
2014	《Detailed rules for the implementation of the Ac- tion Plan for the Prevention and Control of Air pol- lution in the Yangtze River Delta region》	The implementation of cooperative mechanism for air pollution prevention and control in Yangtze River Delta region have been made.
2018	《Three-Year Action Plan to Win the Blue Sky Defence 》	It was focusing on the sustainability of air pol- lution prevention and control actions in the Yangtze River Delta region.
2018	《Three-Year Action Plan for the Integration of the Yangtze River Delta Region (2018-2020)》	The "Action Road map" and task schedule jointly recognized and followed by the regional development of the three provinces and one city have been established in the Yangtze River Delta region.
2018	《Action Plan for Comprehensive Management of Air Pollution in the Autumn and Winter of 2018- 2019 in the Yangtze River Delta Region》	It was Focusing on the Heavy-duty weather emergency response, strengthening the capacity building of regional environmental air quality forecasting center and improving the early warning grading standard system.
2019	《Outline of the Regional Integration Develop- ment Plan of the Yangtze River Delta》	It is proposed that establishing a demonstration zone for the development of ecological green integration in the Yangtze River Delta region.
2019	《Agreement on deepening the Coordination of Local Legislative work of the standing Committee of the people's Congress in the Yangtze River Delta Region》	It makes positive linking up related policies and focusing on environmental control, market opening and order and other key areas.
2019	《Agreement on deepening the Cooperative Mechanism of Supervision and Judicial work of the people's Congress in the Yangtze River Delta region》	It is focusing on the collaborating through regu- lar exchanges, liaisons, and information sharing channels to promote the interconnection and sharing of judicial data information.
2019	《Overall plan for the Yangtze River Delta ecological and green integrated development demonstration zone》	It will promote the innovation of policies, sys- tems and methods of high-quality development, take the lead in exploring the transformation from regional project coordination to regional integration system innovation, transform eco- logical advantages into economic and social de- velopment advantages, and explore an eco- friendly development model.
2020	《 Action Plan for "Three Unified" System Con- struction of Ecological Environment Management in Yangtze River Delta Ecological and Green Inte- grated Development Demonstration Zone》	The demonstration area implements the system innovation of cross-regional ecological environment management without breaking administrative subordination and administrative boundaries.

Fig. 8.1 Policy for the Governance of Air pollution in the Yangtze River Delta region from 2008 to 2020

the principles of planning and cooperation recently. However, in fact, the regional environmental policy objectives should also combine the principles of concentration, additional principles, and supporting principles to comprehensively play the role of regional environmental policy objectives under various principles. Third, the coordination of regional environmental policy objectives is insufficient. Regional

environmental policies cannot replace the policy objectives of each member region by formulating a common policy goal. Instead, they can effectively coordinate and link policies between member regions and regional environmental policy objectives through various economic, legal, and administrative means. Before the implementation of regional environmental policies, the pursuit of policy objectives in member regions is sometimes contradictory or competing. Therefore, coordinating policy objectives between member regions should be one of the tasks of regional environmental policies.

8.3.2.2 The Implementation Process of Regional Environmental Policy Needs to be Further Managed

The implementation process of regional environmental policies is the process of comprehensive policy in all aspects. At present, it is necessary to further strengthen management in policy promotion, policy instrument, policy implementation. Firstly, the comprehensive function of the multi-policy propaganda channel is weak. Within a certain scope, there are still problems such as insufficient publicity, single propaganda, and lack of hierarchical policy and content in urban and rural areas. This makes the comprehensive function of the multi-policy propaganda channel not fully apparent. Secondly, there is a lack of policy tools to support policy implementation. The policy tools of regional environmental policies mainly include various funds or loan instruments. At the beginning of the implementation of regional environmental policies, various funds related to regional environmental policies played a very important role in the implementation of policies. At present, it is mainly based on structural funds, and there are relatively few aggregate funds and solidarity funds. The structural funds are mainly mainly regional development funds, and there are fewer social funds. Thirdly, it needs the joint efforts of multi-level policy implementation needs to be strengthened. Relevant institutions and entities involved in the implementation of regional environmental policies will form a policy implementation chain, which will have an impact on policy implementation. In the process of the implementation of regional environmental policy, the traditional segmentation path depends heavily, and the joint force of policy implementation is affected by the degree of integration of social resources, which hinders the promotion of the joint force of policy implementation to a certain extent.

8.3.2.3 The Effect of Regional Environmental Policy Needs to be Further Evaluated

Policy assessment is also a very important component of the regional environmental policy system. It has a significant role in controlling policy risk transmission and achieving the desired policy effects. At present, the assessment of the implementation effect of regional environmental policies needs to be emphasized. Firstly, there is insufficient understanding of the strategic positioning of regional environmental

policy assessments. The assessment of regional environmental policies is aimed at promoting the realization of policy objectives and improving the long-term effects of environmental governance. On the other hand, it reflects the social and economic development prospects of individuals, regions and sectors that are concerned by policies. However, the current regional environmental policy assessment has insufficient understanding of the strategic significance of policy tool selection, policy influence, and policy risk control. Secondly, the comprehensive application of regional environmental policy assessment methods is weak. At present, regional environmental policies are mostly post-event evaluations, lacking the comprehensive application of pre-assessment and in-process assessment. The ex post assessment is mainly to analyze the breadth of policy influence and the use of policy resources, mainly focusing on the main factors leading to the success or failure of policy implementation and the sustainability of policies. Pre-assessment needs to pay attention to the strengths, weaknesses and development potential of the relevant member regions or departments. In-process assessments need to reflect assessment feedback directly in policy improvement. Thirdly, the results of regional environmental policy assessments are poorly applied. The implementation of regional environmental policies will help improve the environmental governance capacity of member areas and narrow the gap in governance levels in different member areas. However, the regional environmental policy assessment report is generally submitted to the competent authorities for decision-making reference, and is rarely included in the comprehensive assessment system for environmental governance of regional member regions, nor is it an important basis for promotion, reuse, evaluation, reward and punishment of leading cadres.

8.4 Policy Network: The Path to Improving the Performance of Regional Environmental Policy Implementation

Further improving the performance of regional environmental policies basing on the policy network, on the one hand, contributes to the centralized implementation of policies at member and regional levels, and promotes the modernization of regional environmental governance capabilities and levels. On the other hand, the process of promoting regional integration has also promoted cooperation as a key factor in the integration of regional environmental governance.

8.4.1 Policy Network: A New Method to Control the Transmission of Policy Risk

The policy network is based on the power, ability and trust of the policy maker, which is a diversified, open and adaptive way to manage the risk spread in the policy system (Klijn and Koppenjan 2000). Network members are rational utility, which can exchange resources and returns to the greatest extent. Therefore, if the policy network is used in Chinese regional environmental governance, the interests of all participants in the network are conducive to balance and coordination from the beginning, thus avoiding the risk transmission caused by conflicts of interest in the implementation of the regional environmental policy. First of all, the government should have a cooperative position. Second, in view of the special resources of the government and its role in representing the common interest, the government should establish a policy network. Third, the government needs to manage the operation of the policy network in an attempt to promote solutions to certain problems or realities the interactive process of projects that protect common interests.

8.4.2 Constructing Regional Environmental Policy Implementation System from the Perspective of Policy Network

8.4.2.1 Constructing a More Perfect Regional Environmental Policy Target System

The construction of a regional environmental policy system requires a relatively complete target system, operational implementation principles and clear and clear implementation targets. Among them, a relatively complete policy target system is the premise basis. This can achieve ecological aggregation, social aggregation and geographical aggregation among member regions, and promote a more coordinated and balanced development of regional environmental governance. Regional aggregation is a new goal of regional environmental policy, which aims to realize the harmony and balanced development of integrated regional environmental governance. "from a policy point of view, the objective of geographical convergence is to narrow existing gaps, avoid geographical imbalances and achieve a more balanced development through greater coherence between sectoral and regional policies with spatial implications and by encouraging cooperation between regions" (Yamei 2013b). In order to facilitate the formulation and implementation of regional environmental policy, ensure the rational allocation of policy resources, and give full play to the enthusiasm of regional member areas to participate in environmental governance, a series of basic principles should be established for the setting of regional environmental policy objectives, including planning principles, partnership principles, concentration principles, additional principles and auxiliary principles. In essence, regional

environmental policy is an important mechanism to solve regional environmental problems and coordinate regional conflicts of interest. Therefore, it is an important part of regional environmental policy to coordinate the objectives of regional environmental policy. At the same time, the coordination mechanism between regional environmental policy and other policy objectives is constructed, and the multi-level and multi-sector related policies are organically coordinated and coordinated, so as to achieve the best synergy.

8.4.2.2 Promoting the Overall Management of the Implementation Process of Regional Environmental Policy

Regional environmental policy is the sum of a series of policies to coordinate the environmental governance gap among countries, regions and member regions. Effective regional environmental policy depends on well-functioning organizational system, mechanism management and financial support. Therefore, promoting the overall management of the implementation process of regional environmental policy can further improve the performance of regional environmental policy. The regional environmental policy institutions are mainly responsible for the formulation, implementation and supervision of the policies of the regional environmental community, and are mainly responsible for the functions of regional environmental policy trend research, strategy formulation, publicity and coordination, information disclosure and implementation, and coordination to minimize the adverse effects of policies on member areas whose environmental governance capacity and level are relatively weak. The regional policy committee is mainly responsible for studying the development trend of ecological environment in various regions of environmental governance community. In order to strengthen regional and member regional intergovernmental cooperation, the regional policy committee can express its views or suggestions directly for the formulation and implementation of regional environmental policy, which can be used as a district. The establishment of regional environmental policy organization provides the guarantee of organization for the overall management of regional environmental policy implementation process. Therefore, the formulation, implementation, supervision and evaluation of regional environmental policy need comprehensive and scientific and institutionalized management in order to reflect the standardization and rationality of regional environmental policy.

8.4.2.3 Strengthening the Construction of Regional Environmental Policy Performance Evaluation System

"Policy evaluation, as a kind of political behavior to judge the efficiency, effect and value of policy, is an important part of the organic chain of policy operation (Zhenming 1998)". Performance evaluation of regional environmental policy is one of the basic requirements to improve regional environmental policy. In view of the fact that the current concept of regional environmental policy performance has not

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yet been firmly established, the breadth and depth of performance management is insufficient, and the role of performance incentive and restraint is not strong, it is the only way to strengthen the performance of regional environmental policy before and after the event. The performance evaluation of regional environmental policy should be carried out in an all-round way, and the concept and method of performance should be deeply integrated into the whole process of policy implementation. Promoting third-party assessment of regional environmental policy is an important guarantee to improve the level of scientific decision-making and effective policy implementation, and it is also a realistic demand to promote the modernization of regional environmental governance system and governance ability. Third-party evaluation is also an effective supervision and supplement of government governance behavior, and plays an active role in social service supervision and prevention of environmental pollution risk transmission. At the same time, regularly publish the list of third-party evaluation institutions to promote fair competition among third-party evaluation institutions. Therefore, in order to carry out the third party assessment of regional environmental policy, we must adhere to the principles of service decision, objective justice, scientific standardization and practical effect, and make a comprehensive analysis of the feasibility, perfection, standardization and risk point of the policy.

In summary, the expansion and deepening of the process of regional integration not only makes the status and role of regional environmental policy more obvious, but also puts forward higher requirements for the performance of regional environmental policy. The reform and adjustment of regional environmental policy is the process of reconstructing regional environmental policy in order to promote the process of regional integration under the background of the increasing development of environmental globalization governance and knowledge economy in the twenty-first century. It helps to enhance the social cohesion and credibility of regional integration, and is also an important means and model of social fairness in the environmental governance system.

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