Study on the Policy Roadmap for Improving the Air Quality in Beijing-Tianjin-Hebei Region in the Medium and Long Term

Chun-xu HAO¹, Yue HE² and Zhan-feng DONG¹,*

¹Chinese Academy for Environmental Planning, Beijing 100012
²College of Resources and Environmental Sciences, China Agricultural University, Beijing 100193

*Corresponding author

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Abstract. To solve the problem of atmospheric cross-border pollution in Beijing-Tianjin-Hebei region and improve the air quality in a long term, this paper started with the cooperation mechanism of B-T-H region. By analyzing the existing air pollution control policies and mechanisms in B-T-H region and clarifying the key issues and challenges faced by B-T-H region, this paper combed the thought and framework of the cooperation mechanism of B-T-H region, and explored the mechanism from six aspects: joint prevention & control, space regulation, monitoring and supervision, air quality compensation, market economy incentive and social governance, and put forward relevant policy suggestions.

The Status Assessment of Air Pollution Prevention and Control Policy Mechanism in B-T-H Region

The Status of Air Pollution Prevention and Control System and Mechanism in B-T-H Region

Beijing-Tianjin-Hebei region has initially established a "2+4" core area of air pollution control and cooperation mode, which means that Beijing and Langfang, Baoding, Tianjin and Tangshan, Cangzhou, become partners respectively. Beijing and Tianjin provide financial and technical support for the four cities in Hebei for atmospheric management. The joint operation mechanism of environmental law enforcement in Beijing-Tianjin-Hebei region was initially established to strengthen regional environmental monitoring and enforcement, and jointly crack down on environmental violations in the region. In addition, the EIA mechanism, the air quality forecasting and sharing mechanism, the long-term mechanism of pre-warning consultation and emergency response of regional air pollution have also been established.

A framework for cooperation in air pollution prevention and control system has been basically established cross Beijing-Tianjin-Hebei region and its surrounding areas. A collaborative team on air pollution prevention and control system has been set up, which consists of seven provinces and cities including Beijing, Tianjin, Hebei Province, Shanxi Province, Inner Mongolia Autonomous Region, Shandong Province and Henan Province, and eight ministries including Ministry of Environment Protection, National Development and Reform Commission, Ministry of Industry and Information Technology, Ministry of Finance, Ministry of Housing and Urban-Rural Development, China Meteorological Administration, National Energy Administration and Ministry of Transport.

The Status of Air Pollution Prevention and Control Policies in B-T-H Region

To promote the prevention and control of air pollution in Beijing-Tianjin-Hebei region, relevant ministries and agencies successively introduced the policies to ensure the stable supply of natural gas in Beijing-Tianjin-Hebei region, to upgrade the quality of refined oil products, to prevent and control motor vehicle emissions, to administer key industries such as power industry, steel industry and cement industry within a prescribed limit of time, to coal cleaning, to comprehensive utilization of straw and forbid burning them, to promote the use of new energy vehicles and so on.
The Key Problems and Challenges Confronting Beijing, Tianjin and Hebei Regional Cooperation Mechanism

The Regional Development is not Balanced

Due to various reasons of history and administration, Beijing, with the location advantages as capital, and Tianjin, with its special status as a municipality directly under the central government, both have attracted Hebei’s resources to varying degrees. In addition, because of the backward development of Hebei, the problem of one-way flow of Hebei resources to Beijing and Tianjin is even more prominent. Over the long run, the differences between the three places in Beijing, Tianjin and Hebei have become increasingly large.

The Regional Driving Force for Air Pollution Control is Deficient

First is the aspect of the concept of governance. The three governments all lack the idea of cooperative governance. The various administrative bodies are acting their own way, but they all want to ride around. And three governments are still guided by GDP growth and take economic development as their top priority. Secondly, the aspect of the balance of interests. As a "rational economic man", the enthusiasm of local governments is obviously not high due to the tax and fiscal impact of regional air pollution control. There are inconsistencies in interest demands among the three governments and the "total inclusive interest" among them is also weak.

The Region Lacks Regional Regulations and Standards

Although Beijing, Tianjin and Hebei all have their own "Regulations on the Prevention and Control of Atmospheric Pollution", their revision times are inconsistent. Beijing has formulated and implemented earlier, while the regulations in Hebei and Tianjin are somewhat obsolete. Local regulations at various times and at different places have not been conducive to preventing and controlling air pollution at the Beijing-Tianjin-Hebei regional level.

The Thinking and Framework of Beijing, Tianjin and Hebei Regional Cooperation Mechanism

Cross-border pollution is a typical problem of externalities. The external costs of pollution-producing areas are borne by other regions. Under the fiscal decentralization system, cross-border pollution is intensified due to the lack of initiative to control over transboundary pollution in the pollution-producing areas. The current air quality management is still typical of the territorial management system, which lacks efficient inter-district coordination mechanism.

Thinking

The mechanism of regional cooperation should not only be integrated from the regional system, but also consider the stage and characteristics of the development in different regions. We should adhere to the theoretical guidance, the target guidance and the problem guidance, and carry out systematic design. The problem of regional air pollution is characterized by its integrity and complexity. Combined with the government failure in air pollution control and the status of the interrelated interests of multiple subjects, it is necessary to explore the path of coordinated management of multiple subjects to control air pollution in Beijing-Tianjin-Hebei region. An integrated network system for regional air pollution control involving top-level design of the central government, proper guidance by local governments, rational allocation of resources by the market and active community supervision should be established as soon as possible.
Framework

![Cooperation mechanism framework in Beijing-Tianjin-Hebei region.](image)

**Suggestions**

**Improve the Legal Content**

First, to consider enacting the Beijing-Tianjin-Hebei Clean Air Act to standardize and guide the joint prevention and control of regional air pollution. Secondly, the three legislatures in Beijing, Tianjin and Hebei should enact jointly management law in the prevention and control of transboundary air pollution based on their respective practice of air pollution prevention and control. Thirdly, cities in "2 + 4" should break the geographical limitation and add the content of regional joint prevention and control to local laws and regulations in environmental protection so as to improve the joint prevention and control mechanism of regional air pollution. Fourthly, to study and establish Beijing and Tianjin to support four key cities in Hebei in the air pollution control mechanism, to draw up the ecological red line in the region, and to build the Beijing-Tianjin-Hebei region ecological environment community. Fifthly, under the framework of a unified legislation, "2 + 4" cities should explore the establishment of a unified enforcement mechanism for regional pollution control and formulate a unified law enforcement rules.

**Formulate Supporting Policies**

The air pollution prevention and control in Beijing-Tianjin-Hebei air pollution control core area "2+4" cities should take the reforms of the industrial policy, the energy policy, the transport infrastructure policy and other regional policies as an important guarantee. In industrial policies, "2+4" cities should break the traditional thinking, proceed from the whole and focus on their respective functional orientation. Beijing, the capital city, should be functionalized to ease the industries that do not meet the capital's functional orientation. Tianjin should pay attention to the adjustment of energy structure and take the road to characteristic development. Hebei does not only addition but also subtraction. While focusing on their own energy-saving environmental protection industry, Hebei should actively undertake general manufacturing and basic industries transferred from Beijing and Tianjin to achieve industrial restructuring and upgrading. In energy policies, giving full consideration to the status of industrial structure and energy utilization in Hebei, and gradually expanding the supply of clean energy such as natural gas in Hebei. In terms of transport infrastructure policies, we should speed up the process of Beijing-Tianjin-Hebei integration and reduce the pressure on the consumption of resources and energy in Beijing to drive the economic development of neighboring areas.
Establish Information Sharing System

Beijing, Tianjin and Hebei now have their own monitoring and information centers. The next step should be to establish a special information sharing platform on "2+4" regional air quality monitoring, early warning and other aspects. At present, the Beijing Municipal Environmental Protection Bureau is building a joint information and sharing platform for air pollution prevention and control in Beijing-Tianjin-Hebei region and the surrounding areas. After the completion of the information platform, local governments will share information on regional air quality monitoring, sources of pollution emissions, meteorological data, achievements in management technologies and management experience to jointly raise the level of atmospheric governance.

Promote Public Participation Mechanisms

The regulations on public participation in environmental protection should be promulgated on the basis of mutual communication and coordination in the "2+4" cities. Through establishing public participation mechanisms and clearing public participation channels, public participation can be guaranteed and implemented. For supervising the environmental violations that occurred in the integration of Beijing, Tianjin and Hebei, a mechanism to support public interest litigation should be established. The disclosure of government environmental information and publicity and education efforts should be strengthened further to promote public awareness of participation and supervision in environment issues.

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