

Administrative Law Path of Environmental Governance in Guangdong-Hong Kong-Macao Greater Bay Area under the Background of International Science and Technology Innovation Center

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Abstract: At present, due to the imperfect mechanism of environmental information sharing, the weak foundation of environmental science and technology, the low rate of transformation of environmental science and technology achievements, and the obvious conflict of environmental administrative laws in Greater Bay Area, the cooperative governance of environmental innovation in Guangdong, Hong Kong and Macao still faces certain challenges. Therefore, with the joint efforts of the governments of Guangdong, Hong Kong and Macao, Greater Bay Area can fully draw lessons from foreign wisdom and beneficial experience in environmental protection, and promote the development of environmental protection cooperation in Guangdong, Hong Kong and Macao Greater Bay Area by strengthening the sharing of environmental protection information, upgrading the basis of environmental protection technology, promoting the integration of environmental protection industry, education and research, and deepening environmental protection legislation.

1. Introduction

By 2017, nearly all of Guangdong-Hong Kong-Macau Greater Bay Area's coastal waters were scattered by the lowest grade of inferior category IV seawater, and the proportion of good days in nine cities in the Pearl River Delta region decreased by 5% compared with 2016 [1]. Although the three governments of Guangdong, Hong Kong and Macao have already carried out a series of environmental governance cooperation, it is obvious that its effect is not significant. Today, science and technology are in the torrent of high development, and many new situations of social development have emerged. UAV technology, big data statistical analysis and Internet platform have been widely used in society. These technologies can not only facilitate people's daily life and industrial production, but also have many benefits for environmental protection. Integrating science and technology into environmental governance is a good strategy to solve the current dilemma of environmental governance in Guangdong-Hong Kong-Macau Greater Bay Area (GHMGBA). Therefore, China has emphasized the importance of building GHMGBA into an International Center for scientific and technological innovation. Under the background of building an international scientific and technological innovation center, the scientific and technological level of GHMGBA is bound to achieve a qualitative leap. We must vigorously develop the wisdom of environmental protection in GHMGBA, discuss the legal issues of environmental innovation and governance in GHMGBA, and seek the best development path of environmental cooperation in GHMGBA.

2. The Bottleneck of Rule of Law in Intelligent Environmental Protection in GHMGBA

2.1 Lack of environmental protection information sharing mechanism in GHMGBA

The three jurisdictions and the three legal systems are not only the unique features of GHMGBA,

but also the main dilemma in GHMGBA city cooperation. The network supervision mechanism of GHMGBA is different. Since 2015, the mainland began to implement a strict policy of network isolation, formally closed the external network and forbidden people to use VPN software. On the national security side, it is necessary to prevent reactionary comments on the external network from disturb social order, but at the same time, this kind of policy has led to some normal information being blocked out, which made people in the mainland complained a lot about this. Under this kind of network policy, the environmental cooperative governance of GHMGBA is very difficult. First of all, the internet policy in Hong Kong and Macao is more open and most overseas websites can be accessed but it is difficult for the mainland to fully access Hong Kong, Macao and foreign websites, it is impossible for the mainland to obtain relevant information in time. Second, in addition to network restrictions, the lack of environmental protection sharing mechanism is another important reason for the isolated of environmental information in GHMGBA.

2.2 Poor administrative planning and weak technical foundation for environmental governance

China's urban environmental innovation governance model is still in the transition from "digital environmental protection" to "intelligent environmental protection" [2], and most of cities still stays in the state of "digital environmental protection". The gap between "digital environmental protection" and "intelligent environmental protection" lies in the fact that "digital environmental protection" only pays attention to the investment in the hardware of environmental governance, but ignores the investment in the application and development. For example, most governments consider that buying expensive advanced pollutant processors, environmental monitoring sensors, or advanced information-processing platforms makes them realized the "intelligent environmental protection", but that's not the case. This mode of environmental innovation governance only stays on the intuitive application and simple analysis of the scientific and technological equipment and its data, and can only deal with some environmental problems briefly and singly. When new environmental problems arise, new hardware installations will need to be repurchased. This way of governance not only can not achieve intelligent environmental protection, but to a certain extent caused a greater waste of resources. Therefore, just by bringing in scientific and technological equipment, can not achieve the true meaning of "intelligent environmental protection." Unlike Hong Kong and Macao, the mainland is a vertical leadership administrative system. As a result, the capital investment, administrative planning and environmental protection policy of the nine municipal governments in Guangdong are restricted by the central administrative planning.

2.3 The administrative guidance mechanism is not perfect, and the conversion rate of scientific and technological achievements in the field of environmental protection is low

China has been deeply aware of the important role of environmental protection for the development of the economy and people's livelihood. After putting forward the environmental protection concept of "sustainable development" and "Lucid waters and lush mountains are invaluable assets", China is determined to put environmental protection into practice in all aspects of social development. However, under the glossy surface of flourishing environmental protection scientific research achievements, the vast majority of achievements are facing the embarrassing situation that the R & D funds are broken and the scientific and technological achievements are shelved. China's total investment in scientific research accounts for 2.12% of GDP, but the conversion rate of scientific and technological achievements is less than 10%, and even 5% of it is actually invested in industrialization, far from the level of 40% in developed countries [3]. The serious disconnection between industry-university-research of environmental protection science and technology is the biggest dilemma faced by the transformation of environmental protection science and technology achievements. Therefore, further policy guidance is needed to break the dilemma of "Death Valley" in the transformation of scientific and technological achievements, and to promote the continuous development of environmental protection science and technology.

2.4 The power allocation of inter-governmental cooperation is absent, and the conflicts of environmental administrative laws between regions become more and more obvious

The conflict of environmental administrative laws of GHMGBA is embodied in legislation, law enforcement and judicature. First of all, in terms of legislation, the three legal systems obstruct the legal integration of Guangdong, Hong Kong and Macao. The main body of law-making in the mainland is the National People's Congress and local People's Congress. The nine cities in Guangdong have implemented laws of socialist legal system such as general laws, local regulations and local government rules and regulations. Macao continues with the civil law system, although the form of the civil law system and the socialist law system are in little difference, which are mainly written law. But due to the legal culture and customs of the two places are different, the contents of environmental laws are quite different. Environmental law in Hong Kong is based on Anglo-American law system and case law, but a large number of written laws are adopted in environmental law. For example, there are specific subsidiary ordinances such as the Environmental impact Assessment Ordinance (EIAO) and the Water pollution Control Ordinance (WPCO), which form a vast network of environmental law systems. However, taking a comprehensive look at the laws of environmental governance in Guangdong, Hong Kong and Macao, there is almost no law on the relationship between science and technology and environmental governance. There are only some administrative agreements and administrative guidance documents on the promotion of intelligent environmental protection initiatives, the integration of science and technology into environmental protection lack of legal and mandatory protection. Secondly, the Bay area innovative environmental cooperative governance is faced with the absence of inter-governmental cooperation power allocation under different political systems. The current legislation does not make specific provisions on the inter-governmental cooperation authority, and it is difficult for the local governments to grasp the cooperation authority and power allocation during the cooperation.

3. The Administrative Law Approach to Creating Beautiful GHMGBA

3.1 GHMGBA strengthen the sharing of government information and promote the flow of environmental protection information

First, GHMGBA should incorporate the information-sharing concept of cooperative governance at the strategic level. As there are many differences in the economic development and political culture of GHMGBA, the values of environmental protection development are different. But under this kind of respective benefit idea consideration, the information holder may be able to close part of the information, causes the exchange blocking. Therefore, in order to strengthen the information sharing between the GHMGBA, we must first of all break through the concept of cooperation, formulate common development goals, and achieve full coverage of shared interests.

Second, GHMGBA needs to form an effective information sharing and supervision mechanism. At present, the obstacle of information sharing between the mainland and Hong Kong and Macao lies not only in the technical barriers, but also in the fact that the mainland has not yet established a strict information protection system. The relevant authorities in Hong Kong and Macao believe that if they disclose their scientific and environmental information, they will lead to a large number of unique information being plagiarized by people with ulterior motives, and their intellectual property rights will be exposed to a precarious environment [4].

Third, it is necessary to establish a platform for sharing environmental information and scientific and technological information that is not restricted by the network. For a variety of reasons, it is still difficult to fully open the mainland network. However, by jointly submitting a joint proposal to the State Council and in the form of joint proposals, the administrative organs of the GHMGBA may request the State Council to issue relevant approvals to break the network isolation on specific information-sharing platforms. To realize the circulation of environmental protection and related scientific and technological information among Guangdong, Hong Kong and Macao, and facilitate the exchange of government affairs and environmental protection cooperation among the three places.

3.2 GHMGBA strengthen the administrative planning and tamp the technical foundation of environmental protection

First, government of Guangdong Hong Kong and Macao should encourage the vigorous development of environmental protection industry chain. The environmental protection industry can bring huge economic benefits to the environmental protection technology of GHMGBA, which in turn can support and encourage the development of environmental protection technology. The governments of Guangdong, Hong Kong and Macao can provide preferential policies for enterprises related to environmental protection, such as reducing tax revenue, providing enterprise loan discount, subsidizing scientific research funds and so on. Furthermore, it is also necessary to balance the environmental protection industry chain through government regulation, ensuring the diversification of environmental protection products to avoid excessive concentration of products, resulting in waste of resources.

Second, talents of scientific and technological for environmental protection should be cultivated in GHMGBA. There are many universities in the GHMGBA, especially in Guangzhou, Shenzhen and Hong Kong, there are a large number of scientific research institutions. GHMGBA can make full use of this advantage to attract talents to contribute to the development of GHMGBA environmental science and technology by holding environmental science and technology competitions, increasing investment in environmental research and providing preferential employment policies for graduates majoring in environmental protection.

Third, upgrade the configuration of environmental law enforcement equipment. In addition to encouraging the market to drive the development of environmental science and technology, the government itself should also enhance its ability to use environmental technology. At present, the wisdom of most governments only stays in the purchase of OA systems, develop electronic platforms and other aspect, while ignoring the update of the equipment of law enforcement personnel. In the face of many high-tech environmental technical problems, law enforcement departments will be difficult to cope with. Therefore, it is necessary for the governments of Guangdong, Hong Kong and Macao to cooperate with environmental protection science and technology enterprises to learn new environmental governance knowledge and introduce more convenient and advanced environmental law enforcement equipment.

3.3 GHMGBA strengthen administrative guidance and promote interactive integration of industry-university-research of environmental protection

GHMGBA needs to increase the output of scientific research to break the “Death Valley” dilemma of scientific research. GHMGBA can establish a kind of scientific research support mechanism which combines the government purchase service and the market choice mechanism. For example, the government can buy the products of high-tech enterprises to detect air and water pollution. This method not only increases the public funding support for scientific research, but also encourages the market to purchase more excellent scientific research results through the support of public funding. Secondly, the plight of scientific research transformation faced by the Greater Bay area is not only due to the lack of funding support, but also due to the existence of many non-beneficial scientific researches, which enlarges the base of the transformation of scientific and technological achievements. At present, many R & D personnel in China patent for the patent, rather than the real pursuit of higher technology to solve the problems faced in reality, resulting in many of the results of scientific research is ultimately difficult to be adopted by society. In order to break such a strange circle of disjointed industry-university-research, on the one hand, it is necessary to avoid the breakage of the funding chain of scientific research output. On the other hand, the government need to further strengthen administrative guidance, change the R & D concept of researchers, reduce ineffective research output and achieve precise research investment.

3.4. Legislation to protect the development of environmental protection and implementation of the model law on environmental protection

Under the background of the construction of the international science and technology innovation

center, the intelligent environmental protection should not only realize the science and technology in the sense of engineering and ecology, but should include the innovation and upgrade in politics, law and management [5]. Legislation is a major guarantee and driving force of environmental protection cooperation, the United States and Europe and other countries have carried out quite a lot of legislation on environmental protection cooperation and the transformation of scientific and technological achievements. Therefore, it is necessary for GHMGBA to strengthen the legislation on scientific and technological development and environmental protection cooperation to promote the development of environmental science and technology. Due to the existence of the system of “one country, two systems and three legal domains”, the legislation on environmental protection technology in Guangdong, Hong Kong and Macao cannot be unified for the time being. However, it is possible to provide a legislative template for environmental protection in the Greater Bay area in the form of a model law, and to gradually narrow the legal differences between Guangdong, Hong Kong and Macao through the implementation of the model law. At present, there is no unified legislation on the transformation of scientific and technological achievements in GHMGBA, and only the “regulations of Guangdong Province on promoting the Transformation of Scientific and technological achievements” in effect can be applied to promote the transformation of scientific and technological achievements in nine cities in Guangdong Province. Although Hong Kong and Macao have a good scientific research foundation, the law on the transformation of scientific and technological achievements is still lacking, and a large number of scientific research achievements still need to be absorbed by the mainland before they can be transformed and landed. Therefore, more efforts still need to be made in legislation to provide solid legal protection for the cooperation of environmental innovation governance in the GHMGBA.

4. Conclusion

In recent years, Beautiful China Strategy had implemented in everywhere, and the Chinese government has increasingly stressed that GHMGBA will become a new round of international scientific and technological innovation center. In this background, supporting environmental governance with science and technology will be the latest bright spot of GHMGBA environmental cooperative governance. Therefore, how to better integrate science and technology into environmental governance will be an important issue to be explored in modern times. The current environmental governance in GHMGBA is not only facing a bottleneck period, but also a new opportunity period. Against the background of turning the GHMGBA into an international scientific and technological innovation center, drawing on foreign experience and promoting the intelligent environmental protection cooperation between Guangdong, Hong Kong and Macao through the administrative law path, it can provide solid legal protection for the development of environmental protection science and technology in the GHMGBA. As a result, the construction of beautiful GHMGBA will soon be completed.

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