

# The Study of Inter-basin Environmental Regulation Issues

## —Based on the collaborative governance perspective

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**Abstract.** With the rapidly development of China's economy, environmental pollution is also growing, especially the inter-basin pollution incidents and pollution disputes occur frequently. Sustainable development of economy and society has become increasingly prominent. At present, China's inter-basin environmental regulation mainly dominated by government, which has already built the basic governance structure of inter-basin environmental regulation. In practice, however, government regulation has a series of problems, which led to the failures of inter-basin environmental regulation policy. In this case, it is necessary to implement the inter-basin environmental regulatory reform and it is possible for the collaborative governance of government, market and society.

**Keywords:** inter-basin environmental regulation, governance structure, regulatory failure, collaborative governance

## 1. Introduction

The control of inter-basin environmental pollution has long been the major problem in the area of China's environmental management and it also tends to be ignored when making environmental regulation policies. The particularity of inter-basin environmental issues, as well as the limitations of government-centered environmental regulatory framework led to this situation. From view of the particularity, first of all, the inter-basin environmental regulation relates multi-level and multi-quantity regulation body. It not only involves the competition between the regulators and those being regulated, but also involves the competition between different regulators, which includes the one competition between centralized regulation of central government and the decentralized regulation of local government and the other one competition between local governments. Secondly, the inter-basin environmental regulation contains diversity regulation tools and regulatory standards. Because of the multiple-level government and their different regulatory objectives, each government will choose the appropriate regulatory tools and develop appropriate regulatory standards, which then result in the conflict. Thirdly, it is difficult to make the responsibility clear. In the inter-basin environmental pollution, the types of pollutants and the possible damages require specific monitoring techniques and professional research to be able to determine, and the consequences of pollution is potential. So it need enough time and the economic costs are very high, even it is able to prove a causal link, it is also difficult to determine the source of contamination.

As for the limitations, since the beginning of China's environmental regulation policy in 1979 when the State Council promulgated the "China Environmental Law (Trial)" , the history of China's environmental regulation experienced three stages, which are command-and-control(CAC) environmental regulation policy, the economic incentive policy and informational environmental regulation policy<sup>[1]</sup>. However, whether the executive-led command-and-control environmental regulation policy or the market-oriented economic incentive policy has played an actual role in the control of inter-basin environmental pollution<sup>[2]</sup>. From the local government level, as relatively independent economic entities, they face with multiple objectives and

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choices. On the one hand, they have the direct responsibility to protect the environment and maintain the long-term sustainable development of economy and society. On the other hand, they also have a strong desire to promote the growth of regional economy, which will always cause them tend to ignore or deliberately sacrifice the environment for the growth of economy in exchange. At last, This tendency will increase the possibility of "regulatory capture" which will further hamper the inter-regional cooperation in the environmental regulation.

## **2. Regulation Status: governance structure of the inter-basin environmental regulation**

At present, government plays a key role in China's inter-basin environmental regulation system. Laws, institutional arrangements and regulatory tools together constitute the governance framework of inter-basin environmental regulation.

### **2.1. Legal basis**

The legal basis of Inter-basin environmental regulation includes general legislation of environmental protection and specific legislation aimed to solve trans-boundary pollution problems. General legislation mainly made of laws, regulations and rules. China has already made a series of general legislation, which include the "Environmental Protection Law of The People's Republic of China" (1989), the "Water Law of The People's Republic of China " (2002), the " Environmental Impact Assessment Law of The People's Republic of China " (2002), the " Radioactive Pollution Prevention Law of The People's Republic of China "(2003), the " Solid Waste Pollution Prevention Law of The People's Republic of China "(2004), the " Water Pollution Prevention Law of The People's Republic of China "(2008) and so on. Specific legislation include administrative regulations such as the "Regulations on Administration of Taihu Lake Basin" and the "Provisional Regulations on the Water Pollution Control of Huai River Basin", and normative documents such as the "Regulations on the Coordination and Disposal of Trans-boundary Pollution Disputes of East China Environmental Protection Supervision Centers of the Department of Environmental Protection", the "Interim Measures on the Coordination and Disposal of Trans-boundary Pollution Disputes of Southwest China", the" Administrative Approach of Trans-boundary Pollution Disputes of Pan-Pearl River Delta Regional" and the "Work Plan on the Disposal and Emergency Linkage Response of Trans-boundary Pollution Disputes of Zhejiang and Fujian Provinces"<sup>[3]</sup>. These laws and regulations together determine the main principles of inter-basin environmental regulation, and thus determine the institutional arrangements and the choice of regulatory tools.

### **2.2. Institutional arrangements**

Institutional arrangements of inter-basin environmental regulation mainly refer to the division of responsibilities and authority between the central government and local governments in the basin resources management system and inter-basin environment pollution control process. China has adopted a centralized regulation approach to deal with inter-basin environmental problems. According to the "Water Law of The People's Republic of China ", all the water resources belong to the state and the water resource management system is the combination of basin management system and regional management system. As the administrative department of The State Council, Ministry of Water Resources takes on the unified responsibility to management and supervises all the work related to water resource. In addition, according to the legislative authority, water resource management departments of local governments that above the county level must be responsible for the management and supervision of regional water resources. When facing with inter-basin environmental issues, the first principle is that the related responsible institutions need to negotiate and the higher-level government makes a ruling only when they can not reach agreement.

### **2.3. Regulation policies**

The implementation of the regulation policies is actually a specific action to choose and apply regulation tools. In China, the actor that mainly uses regulation tools is government and these basic tools including command –and- control tools and market-oriented economic incentive tools. In recent years, along with the development of industry associations and NGOs as well as the growing awareness of environmental

protection of enterprises, there has generated voluntary-based environmental regulation tools. To be specific, commands –and- control regulatory tools include four kinds, namely environmental impact assessment system, "three simultaneous" system, deadline-control system and discharge permit system. Economic incentive regulatory tools include sewage taxes system and tradable permits system. Voluntary-based environmental regulation is the latest innovation tool, specifically including environmental certification, voluntary agreements, environmental auditing, eco-libelling, etc. This environmental regulation tool more emphasis on the leading role of enterprises and industry associations and the government no longer plays a major role.

### **3. Practical Dilemma: The failure of inter-basin environmental regulation**

As it sees from the practice, China has established basic governance structure of inter-basin environmental regulation. However, the inter-basin environmental pollution incidents still occur frequently, environmental and ecological disputes between local governments appear constantly. The reason mainly lies in the imperfection of governance structure of inter-basin environmental regulation and a certain degree of failure of regulation system made by government.

#### **3.1. Imperfection of the laws and regulations**

First, almost all of the current inter-basin environmental laws, rules and regulations are about environmental management system and they are very vague. On one hand, the specific rights and responsibilities of longitudinal and transversal sectors that take part in the environmental regulation are unclear, thus the policies and regulations on inter-basin water environment management have not been effectively implemented. On the other hand, the law provides unified department the authority of approval, charge and punishment, and it also provides the branch departments some of supervision and inspection authority. However, the branch departments never have chance to involve in the approval, charge and punishment action, which makes them lose the right to supervise the unified department.

Secondly, there are no specific provisions about cooperation mechanism of lateral inter-basin governments in the existing laws and regulations. On the contrary, there are more provisions from the vertical hierarchy governments' perspective or about the point pollution problems.

#### **3.2. The conflicts and contradictions in institutional arrangements**

The first problem is the absence of authority coordinating organization. According to original design, watershed management agencies should play an important role in the inter-basin environmental regulation, but they are not performing well in practice. One reason is that they are the branch departments belonging to Ministry of Water Resources, which will make them lack of independent autonomy as well as vitality. The second reason is that there is a certain degree of overlap and intersect in the right and responsibility between the watershed management agencies and related environmental protection departments belong to the local governments. The third reason is that the role of watershed management agencies to management water resource and supervise the water pollution is very limited.

The second problem is that water management departments and environmental protection departments have some overlapping functions. The "Water Law of the People's Republic of China" stipulates that the water management departments have the authority to management and supervise the water resources and the leaders of water management departments need to develop water conservation plans. But the "Water Pollution Prevention Law of the People's Republic of China" stipulates that environmental protection department need to management and supervise the prevention of water pollution and their leaders need to develop water protection plan and water pollution prevention plan. This not only causes the shuffling and wrangling between different departments, but also increases the complexity of inter-basin environmental governance.

#### **3.3. The competition and game between regulation actors**

In the first place, there is the game between the central government and local governments. Since the central government emphasis on the environment protection and thus will control the pollution actions of local enterprises by using appropriate regulatory policies and tools, while local governments aim to develop

the local businesses and local economy and sometimes need to make a sacrifice of the environment, this contrary always led to the conflicts between them. In addition, the existing institutional structure strengthens the possibility of this action. The personnel appointments and budget of local environmental protection departments are determined by local government rather than higher-level environmental protection department of the state, therefore, the permissions of environmental management are in fact controlled by the local governments.

Furthermore, local governments tend to make regulations and policies that can be benefit to local enterprises rather than standing in a whole perspective, which need they assume responsibility for local environmental protection effectively. The result is that local governments followed the cutting patterns based on the division of administrative regions when they government public affairs, thus derives a governance pattern called closed-in “Administrative Region” [4]. This will make local governments inevitably pursue maximum benefits or minimize the governance costs. In the whole inter-basin environmental regulation, because of the costs of environmental governance may be borne by governments in the downstream areas, the governments in the upstream areas will be more obvious to relax environmental regulation. However, because the governments in the upstream may improve quality of the entire basin water, the governments in the downstream will tend be "free rider". As a result, local governments will fall in the vicious competition and it is difficult for them to form an intergovernmental cooperation mechanism.

#### 4. Regulation reform: The path of inter-basin environmental regulation from collaborative governance perspective

From the perspective of collaborative governance, the following inter-basin environmental regulation collaborative mode can be made (Fig. 1).

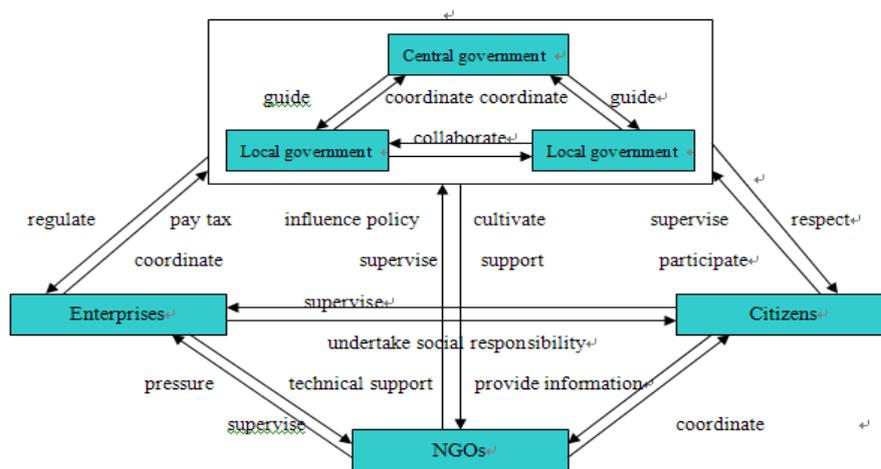


Fig. 1: collaborative mode of inter-basin environmental regulation

##### 4.1. Collaboration between governments

First, the central government should guide the behavior of local government. It need to improve horizontal and vertical management system of environmental regulation, make responsibilities and division of labor between the different departments more clear and thus provide organizational guarantee for the collaboration. Local government should strength the motion to protect environment and enhance incentive and restraint mechanisms by improving performance management. Meanwhile, local governments also should change their ideas initiatively to commit environmental responsibility. Second, Second, local governments should cooperate with each other. On the one hand, they should break the existing restrictions of administrative divisions and then establish inter-basin environmental cooperation organization. On the other hand, they should improve mutual cooperation mechanisms, which include information disclosure mechanisms, emergency response mechanisms, benefits and compensation mechanisms and supervision, restraint mechanisms.

##### 4.2. Collaboration between government and market

Government must pay attention to the cultivation and development of enterprises, give enterprises guidance, warnings, penalties according to institutional regulation and the public interest. In addition, government should take full advantage of the economic-incentive regulation policies, formulate rational enterprise sewage system, reward system, monitoring system, and public complaints system, so that enterprises can receive both egoistic goal and altruistic goal, or receive profit maximization goal and Pa Pareto optimal goal<sup>[5]</sup>. The enterprises should actively undertake the responsibility of environmental governance and realize self-restraint in accordance with laws, regulations and rules.

### **4.3. Collaboration between government and society**

Government should actively create conditions to attract NGOs entry the environment protection, broad their participation approaches. Meanwhile, NGOs must start regular or irregular environmental data surveys through their professional team and technology companies and assist government in monitoring corporate behavior. In addition, the NGOs should also monitor the behavior of local governments, in particular, to prevent the collusion between local governments and enterprises. When refers to the collaboration between government and the citizens, government should strengthen environmental awareness of citizens by publicity and education, protect citizens' right to know the situation of environment, improve incentive mechanism of public participation, define the scope of incentives and rewards clearly and increase citizens' environmental enthusiasm and motivation. Citizens should establish environmental awareness and commit to environmental responsibility and help government to oversight environmental behaviour of enterprises.

### **4.4. Collaboration between market and society**

In the collaboration between enterprises and citizens, enterprises should vigorously promote and popularize environmental protection knowledge, inspire employees' social responsibility to protect and construct ecological environment. When enterprises have already damaged the environment, they should public information to citizens timely and undertake the responsibility initiatively. Citizens should supervise enterprises and reflect the pollution to relevant departments. In the collaboration between enterprises and social organizations, NGOs can collaborate directly with enterprises to introduce new corporate environmental strategy, change the behavior of enterprises, help enterprises to carry out technological innovation and develop new environmentally products. At the sometime, enterprises can provide funding, human and technical support for NGOs.

## **5. Conclusion**

The failure of government environmental regulation offers the possibility for citizens, NGOs and other social entities involve in the inter-basin environmental protection. Indeed, it is not the responsibility of one of the governments, market or a particular subject of society to solve the inter-basin environmental problems. Environmental regulation system is open and complex, including not only subsystems of environmental regulation, but also external systems. Therefore, the inter-basin environmental regulation reform not only should improve the government environmental regulation system, but also introduce multi-agent to protect environment and share responsibility.

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