

# Study on the Coupling and Coordination Mechanism of River Basin Pollution Control, Ecological Optimization and Economic Development

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**Abstract:** In recent years, the party and the state have attached great importance to river basin governance. General Secretary Xi Jinping has delivered an important speech on the governance of the Yangtze River and the the Yellow River Basin, which provided fundamental guidance and guidance for river basin governance. In the new era, the situation of river basin governance is more complex, the problems are more diverse, the time is more urgent and the requirements are higher. This paper takes river basin governance as a research issue, discusses the coupling and coordination mechanism of river basin governance, ecological optimization and economic development, so as to promote river basin governance more scientific and effective.

**Keywords:** River Basin Governance; Coupling; Coordination

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## 1. Introduction

At present, the river basin governance has reached the point of no delay. With the approaching of the stage goal of building a well-to-do society in an all-round way by 2020, pollution prevention and control, as one of the three key battles, has reached an urgent stage. River Basin pollution prevention and

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control is the top priority of pollution prevention and control, which has the characteristics of wide range of pollution sources, multiple points, cross regional, transfer, strong continuity and so on. On the whole, China's river basin governance has gone through the stages of development, pollution, prevention and control, comprehensive treatment, etc., and the basin governance is steadily advancing and developing.

## **2. Basic Path of Basin Pollution Control, Ecological Optimization and Economic Development**

The coupling mechanism of environment, ecology and economy provides endogenous power for the comprehensive management and high-quality development of river basins. The basic path is: the environmental governance of the basin can promote the economic growth of the basin by improving the value of the environmental natural resources, that is to say, the development of industries with low energy consumption, high-tech and high added value can promote the economic growth of the basin and give full play to the maximum value of environmental resources; and ecological optimization can scientifically divide the functional orientation of the basin, optimize the ecological efficiency of the basin, avoid the homogeneous competition of the basin, and enhance the core competitiveness of the basin ecology. The mechanism of ecological compensation can make up for the ecological injustice of the basin, promote the symbiosis and sharing of economic development of the whole basin; Economic growth can also react on environmental governance and ecological restoration, provide basic material support, coordinate the development of ecological resources, promote the sharing of comprehensive management achievements, and enhance the comprehensive benefits of river basin governance. Therefore, the benign interaction relationship between environmental governance, ecological optimization and economic growth has been formed. This kind of benign interaction is conducive to the dynamic transformation, win-win and overall promotion of high-quality development of the basin.

## **3. Construction of Coupling and Coordination Mechanism of Pollution Prevention, Ecological Optimization and Economic Development**

### ***(1) Establish and Improve the Coordination System of Pollution Prevention and Control, and Provide Basic Guarantee for Comprehensive Management of River Basin***

Pollution prevention and control is the basic project of comprehensive management of river basin, which is also related to building a well-off society in an all-round way. At present, pollution prevention and control work is self-governing,

and the disadvantages of each management section are not suitable for the requirements of comprehensive management of river basin in the new period. Therefore, first of all, we should make clear the cross regional and whole basin coordination governance system, which includes the central overall planning, the main body of regional local governments, the vertical and horizontal coordination of central and local governments, the participation of enterprises and the market, and the collaborative governance of the public. Secondly, it is necessary to set up a trans regional and inter departmental integrated and coordinated comprehensive management institution for river basins. It is necessary to coordinate the regions along the river basin, link up the constraints of various departments such as environmental protection, water conservancy, development and reform, planning, economy and information technology, and break through the last kilometer of basin pollution prevention and control. Finally, according to the principle of joint protection, joint development and joint governance, we should break the regional restrictions, implement the mechanism of CO governance, co construction and sharing, and promote the overall basin governance from the upstream and downstream to the coordinated promotion.

***(2) Try to Find Ecological Function Regionalization of River Basin Systematically, Provide the Basis for the Comprehensive Management of River Basin***

In the new period, the comprehensive management of river basins should highlight the integrity, systematicness and unity. According to the natural resources situation, economic development pattern, ecological environment characteristics and ecological service functions, the basin should be divided into different ecological functional areas according to the differences and similarities of different watersheds. The ecological functional areas such as ecological regulation, product provision and human settlement security should be strictly implemented Bit.

At the same time, the division of ecological function areas should take into account the ecological resources, industrial layout and functional orientation of the basin, highlight the differences, and avoid repeated development, repeated construction and homogeneous competition. It is necessary to adhere to the principle of proceeding from reality: water is suitable for water, mountain is suitable for mountain, grain is suitable for grain, agriculture is suitable for agriculture, labor is suitable for work, and commerce is for commerce, and measures are taken according to local conditions. It is necessary to adhere to the “a game of chess” in the whole basin, pay attention to the integrity and coordination of the basin, overcome the pure impulse of political achievements and departmental interests, strengthen the overall planning and coordination of the same functional divisions of the basin, establish the comprehensive ecological compensation system of the basin, and promote the comprehensive management of the whole basin to be harmonious and different<sup>[8-9]</sup>.

***(3) Give Full Play to the Coupling and Coordination of Environment, Ecology and Economy, and Provide Endogenous Power for the Comprehensive Management of River Basins***

The coupling theory proves that the movement of human society and natural system can generate mutually promoting energy. The comprehensive management and sustainable development of river basin depend on the coordination degree of system components and the gain coupling with ecosystem. Similarly, the classical economic growth theory holds that the resources elements such as land, capital and labor are the main sources of economic growth. Ecological economics also points out that economy and ecology can achieve coordinated and sustainable development, ecological resources have irreplaceable economic value, and ecological utility must be considered in economic development.

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