

# Study on the implementation effect of river and lake water environment management in Jingdezhen city

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## Abstract

In recent years, ecological protection of river and lake environments has gained significant attention. The nationwide implementation of the river chief system in 2016 marked a pivotal shift toward addressing pollution and restoring aquatic ecosystems. By establishing a responsibility framework involving party and government leaders, the policy prioritizes water conservation, spatial balance, systematic management, and the sustainable use of water resources. Jingdezhen has aligned with national and provincial directives by implementing a four-tier river chief system at city, county, township, and village levels. This study evaluates the effectiveness of this policy in Jingdezhen using the meter-horn policy implementation model, examining factors such as policy standards, resources, enforcement, and personnel orientation. Based on questionnaire surveys and empirical analysis, the findings highlight challenges and provide recommendations for improving policy outcomes. These insights aim to support the sustainable development of Jingdezhen's economy while advancing ecological protection efforts.



Full Text Article



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**Keywords:** river chief system policy; policy implementation; Mitt-Horn model

## Analysis of the policy implementation status and dilemma of Jingdezhen river chief system

### *Basic situation of the implementation of the Jingdezhen river chief system policy*

Since 2016, Jingdezhen has adhered to the principles of ecological civilization, establishing the concept that "green water and lush mountains are invaluable assets." In alignment with the deployment requirements of strengthening the long river system and constructing "happy lakes," Jingdezhen has focused on the comprehensive development and utilization of water resources. The core objectives include the protection of the water ecological environment, the prevention of water pollution, and the continuous improvement of water ecological quality. Comprehensive management of the entire basin has been prioritized, with an emphasis on strengthening the management of pollution sources to meet the city's water ecological quality standards. In accordance with the work plan for the river chief system, we have actively developed and

implemented comprehensive policies aimed at enhancing the river and lake environments. Significant progress has been made in improving water ecology and environmental quality. Ultimately, the enhancement of river and lake water quality is the primary goal of implementing the river chief system policy. Creating an ecologically beautiful river and lake environment is not only central to the river chief system policy but also a necessary condition for achieving sustainable ecological development. For an extended period, the protection of the water ecological environment has been recognized as a long-term project. Achieving desired goals and effects through temporary or single-aspect protection is challenging; thus, a comprehensive, multi-faceted approach to governance is essential. The implementation of the river chief system policy aims to establish a robust ecological protection framework for rivers and lakes, characterized by orderly regulation, clear responsibilities, strong protective measures, and stringent supervision. This framework is intended to sustain the health of rivers and lakes while facilitating their sustainable utilization. Consequently, this paper analyzes and discusses relevant data concerning the standards and objectives of policy implementation, resource allocation, modes of implementation, characteristics of the implementation mechanism, and the value orientation of the executors. This analysis aims to provide an objective understanding of the current state of the river and lake water environment in Jingdezhen City.

### ***Organizational mechanism and system construction situation***

Jingdezhen has appointed a total of 617 river (lake) chiefs, which includes 19 municipal, 65 county, 120 township, and 413 village river (lake) chiefs, thereby achieving full coverage of the river chief system across city, county, township, and village levels. In the event of personnel changes, the line of river and lake chiefs is adjusted promptly to enhance the institutional framework. A cooperative mechanism has been established among river and lake chiefs, police chiefs, and chief procurators to fully utilize the legal supervision functions of the procuratorial organs, as well as the supervisory and rectification roles of public security departments. This comprehensive implementation of the long-term joint supervision mechanism, termed "river chief + police chief" and "river chief + chief procurator," is supported by the issuance of the Implementation Measures on Establishing the Cooperation Mechanism of "River and Lake Chief + Prosecutor General" to ensure the management and protection of rivers and lakes, along with the Implementation Opinions of the Police Chief System for Rivers and Lakes (Revised) and other related documents. These efforts provide a robust guarantee for advancing the city's river and lake chief system from "comprehensive establishment" to "comprehensive effect." In addition, adjacent cities situated between cross-border lakes should establish a long-term working mechanism that includes joint consultations, patrols, prevention and control measures, and collaborative management. This approach aims to address controversial issues through negotiation and to promote shared implementation, mutual coordination, and collective management responsibilities. The goal is to prevent the degradation of the river and lake environments and to facilitate the establishment of a sustainable governance zone. Furthermore, we will enhance the river chief system by ensuring comprehensive planning and coordination, breaking down major tasks, and implementing a responsibility system for water environment protection. This will involve a division of labor and cooperation among relevant departments according to their specific responsibilities, as well as the achievement of established targets.

### *River patrol supervision and rectification aspects*

The city has issued a directive regarding the deepening of lakes and the enhancement of river systems to expedite the construction of sustainable waterways. It requires all levels of river (lake) management and relevant responsible units to adhere to established regulations and to prioritize special projects for rivers. Municipal grassroots river managers are expected to follow up promptly, respond effectively, and fulfill their roles and responsibilities in the supervision of waterways, while also coordinating efforts to address any issues that arise. Under the leadership of the municipal government, river and lake chiefs across four levels have conducted over 29,770 inspections. Specifically, municipal-level river and lake chiefs have completed 30 patrols, county-level chiefs have conducted more than 350 patrols, township-level chiefs have carried out over 4,850 patrols, and village-level chiefs have performed more than 24,540 patrols. It is essential to leverage the overall responsibility of river and lake chiefs to enhance oversight. In light of the challenges identified in the supervision process, including issues raised during public investigations and concerns expressed by the community, the city river chief office has issued supervisory letters and has received feedback for rectification. All identified issues have been addressed and implemented accordingly. We will implement the state's basic requirements for water pollution prevention and control, conduct regular special campaigns such as the 'Qinghe Action' and 'Cleaning of Rivers and Lakes', and enhance supervision and law enforcement through river and lake guards. Additionally, we will conduct a comprehensive investigation into the management issues affecting rivers and lakes. We aim to strengthen the centralized control of industrial pollution, ensure the stable operation of centralized sewage treatment facilities, and guarantee that effluent is discharged in accordance with established standards. In line with the province's ecological environment special law enforcement inspection plan, we will initiate targeted actions against scattered pollution. This will involve investigating the factories and mines surrounding scattered pollution enterprises, and requiring prompt rectification from any identified problematic units.

### *Policy resources input situation*

We will vigorously implement comprehensive ecological improvements in river basins and strive to create "happy rivers and lakes" for the benefit of the people. By continuously developing the 100-li scenic belt of the Changjiang River, with a focus on "one river, three rivers, and six mountains," we will promote urban and rural environmental governance and landscape ecological restoration within a defined scope. Attention will be directed towards the construction of a key water conservancy project in Jingdezhen, as well as the initiation of the Jingdezhen River and Lake Chief System Theme Park, which will receive substantial funding. The main dam project in Jingdezhen was completed in May 2021, and the Jingdezhen River and Lake Chief System Theme Park has been launched, with an investment of 50 million yuan already secured. Additionally, the ferry wharf and leisure square at People's Park on the right bank of the Changjiang River have been completed and are now in use. The first phase of the Yanjiang West Road landscape greening and drainage project (spanning the Changjiang Bridge to the Lanshan Bridge section), which involved an investment of 168 million yuan, has also been fully completed, covering a total construction area of approximately 22.49 hectares. The comprehensive management project for the ecological environment of the Changjiang River Basin has consistently provided citizens with numerous comfortable leisure and fitness spaces. We will enhance ecological restoration efforts to control and

mitigate soil erosion, aiming to complete comprehensive prevention and control measures over an area of 52.23 square kilometers. This encompasses 36.63 square kilometers of soil erosion and 15.60 square kilometers designated for key prevention and protection. In conjunction with the comprehensive implementation of ecological river management and the oversight of river and lake environments, Jingdezhen City will build upon the existing results of river management. The ecological treatment of rivers will extend to other river basin water systems, while also supporting rural revitalization projects through engineering and landscape construction. A series of investments totaling 2 billion yuan will be directed towards the environmental governance of rivers and lakes. Additionally, a special fund of 2.7 million yuan will be allocated for the supervision of municipal rivers and lakes, addressing existing challenges in lake protection. Based on the comprehensive assessment of watershed distribution, four rivers and lakes have been selected for significant investment to develop 'happy rivers and lakes.' This initiative will greatly enhance the aesthetic appeal of these water bodies and provide substantial material support for improving their environmental quality.

### ***Publicity and education approach and measures***

Through engagement with mainstream media outlets such as Powerful Country, Jiangxi Daily, China Water Resources News, and Dajiang Network, I enhanced the publicity and reporting of the river and lake chief system. This effort resulted in the publication of 15 news reports in media outlets at the provincial level and above, alongside the analysis of four reports that reflect the practices and outcomes of implementing the river chief system policy. In conjunction with events such as World Water Day, China Water Week, and Lakes Protection Week, we issued 1,000 regulations pertaining to the long river and long lake system. These regulations facilitated water-saving education campaigns aimed at various community sectors, including enterprises, parks, schools, and rural areas, thereby increasing awareness of river and lake environmental protection and encouraging industry participation in lake conservation efforts. Additionally, the river and lake chief system was integrated into the curriculum of the Party School of the CPC Municipal Committee. The full-time deputy director of the Municipal River Chief Office was invited to deliver a special course titled 'The Practice and Experience of the River Chief System.' Through a series of educational initiatives themed 'River and Lake Protection Begins with Me' and 'Volunteer Service for Mother River: Garbage Cleanup,' we fostered a positive atmosphere for cherishing rivers and lakes and protecting ecological integrity on campus. The completion of the 1,500-meter South River leisure greenway and the installation of six publicity signs for the river chief system further support these efforts. In accordance with the Work Specification of the River Chief and Lake Chief Systems, we adjusted and updated the river chiefs' license display page with 109 entries. We also published a complaint report telephone number and QR code to facilitate public reporting of illegal activities, thereby enhancing social oversight.

### ***All parties to cooperate with the special treatment situation***

Special campaigns, such as the "River Clearing Action," have been conducted as part of the "Clean Up Action" initiative, addressing the "Four Chaos" issues affecting rivers and lakes, alongside the supervision and law enforcement efforts of river and lake guards. A comprehensive investigation into river and lake management issues has identified 102 environmental problems that adversely

impact water quality. Among these, 72 relate to urban and rural domestic sewage and waste; 13 pertain to disorderly conditions in rivers and lakes; 1 concerns water shorelines; 12 involve protected fishery resources; and 4 are associated with centralized drinking water sources. All counties, cities, districts, and municipal units responsible for the river chief and lake chief systems have actively collaborated to establish a detailed ledger of these issues, implement rectification measures, and manage sales numbers. By the end of December 2021, all rectification tasks were completed, achieving a 100% completion rate. The environmental quality of surface water in the city is stable and shows improvement. The proportion of water quality rated as excellent in both national assessment sections and provincial monitoring sections stands at 100%, placing the city first in the province. Furthermore, the water quality standard rate for centralized drinking water sources in the city is also 100%. In accordance with the new "Water and Soil Conservation Law," efforts have been made to actively implement the requirements set forth by superior competent departments. Comprehensive prevention and control measures against soil erosion have yielded significant results, successfully addressing soil erosion across an area of 52.23 square kilometers in the city.

## **The dilemma of Jingdezhen river chief system policy implementation**

### *The organizational structure setup and incentive measures are unreasonable*

First, the setting of the actuator is problematic. As an informal organization, the river chief office possesses certain advantages in integrating government resources; however, it also faces notable disadvantages. The composition of the department is broad, with the office staff primarily comprising leaders from party and government organs. Although a dedicated river chief office has been established, most personnel, especially those at the basic level, serve in part-time roles, lacking specialized professional expertise to effectively manage operations. Consequently, many tasks remain inadequately addressed, with the primary responsibilities falling to the water conservancy department. This situation exacerbates functional overlaps, leading to unclear divisions of responsibility between the river chief office and functional departments, which in turn causes frequent conflicts between departments. Second, the actuators are devoid of appropriate incentives. The river chief system necessitates the collaborative efforts of various executive agencies and departments, as river and lake governance is a long-term endeavor. Therefore, it is essential to develop a feasible set of incentive rewards and punitive measures to enhance staff motivation. Third, the complexities of team building present challenges. The majority of the river chief system's staff consists of heads from water conservancy departments and party and government organs, which does not align well with the professional demands of current river and lake environmental management. This misalignment hinders the ability of the river chief system to leverage complementary advantages effectively.

### *The standards for policy implementation are not clear and unified*

The policy goal is to achieve the desired outcomes that public policymakers aim for when adopting specific methods and means. Determining the goal of a policy serves as both the starting point and the foundation for policy formulation. Policy implementation typically involves the adoption of corresponding measures aligned with the policy objectives, and the realization of these objectives plays a guiding role in the development of specific policy programs. The objectives and standards

of the river chief system policy dictate the particular methods and approaches for its implementation. Currently, the overall goal of the river chief system policy is relatively clear: to improve the river and lake environment of Jingdezhen. However, an examination of the execution process reveals that the long river system work in Jingdezhen has primarily been guided by central regulatory documents, with no specific regulations or appropriate adjustments made for the management of the rivers and lakes in Jingdezhen.

#### *Insufficient investment in policy resources*

First, the financial investment is insufficient. The river chief system policy was officially issued at the end of 2016. Due to the time difference in the budget implementation and compilation, when the government implemented the river chief system policy, the central and provincial governments often lacked sufficient budget funds as the guarantee, while the local finance became more tight due to the contradiction between revenue and expenditure. Due to the lack of special funds to ensure the management of river and lake environment, on the other hand, it is necessary to increase the publicity of river chief system and the investment of technical information measures, which makes it difficult for local governments to provide sufficient financial support for the river chief system policy. Second, the personnel structure needs to be optimized. In terms of human resources, although the "River Chief Office" and the leading group for river and lake water environment protection have been established in accordance with the policies of the central government, the centralized arrangement and deployment of human resources have been realized. However, the overall quality of the staff of Jingdezhen River Chief Office is not high, and there is a problem of shortage of high-level talents. The front-line staff are generally older, have poor educational background, and lack of professional professionals to control the pollution of river and lake water environment. Specialization and youth seriously restrict the implementation of the river chief system policy. Third, the lack of reliable information technology resources guarantee. Since the environmental protection of river and lake water needs real-time monitoring data, reliable information technology is needed as an important guarantee for data monitoring.

#### *Lack of a good policy environment*

The implementation of a policy cannot solely depend on the fundamental conditions of the policy itself; it is also inextricably linked to the support of a conducive external environment. This external environment primarily comprises the political, economic, and cultural contexts. This is primarily manifested in two ways: First, excessive political coercive pressure can be detrimental. For instance, in order to implement the river chief system policy, the Jingdezhen municipal government adhered strictly to superior directives and directly held accountable those river chiefs who failed to execute the policy effectively. While such strong political pressure may enhance the effectiveness of the river management efforts in the short term and improve administrative efficiency, it can also foster resistance among grassroots river chiefs. Many of these river chiefs serve as the principal leaders of party and government organs at the grassroots level and may struggle to cope with these pressures over the long term. Second, there is an inadequacy in the economic environment's guarantee function. The economic environment serves as a material guarantee for the implementation of the river chief system policy and is a primary premise for its execution. In the case of Jingdezhen, a prefecture-level city, the economic foundation is relatively weak compared to other regions. This

city faces constraints from traditional industries and lacks internal driving factors necessary for economic growth. Consequently, its economic development capacity is underdeveloped, placing it at a lower level of overall economic development on a national scale. Therefore, since the implementation of the river chief system policy, the enhancement of the river and lake environment has been constrained by the prevailing economic conditions. Furthermore, the cultural environment surrounding river and lake water protection is insufficiently developed. Over the course of long-term cultural construction, it is generally believed that the establishment of a culture of river water environment protection is primarily a matter of public infrastructure and the provision of hardware facilities for protecting the river and lake environment. However, there is a lack of clarity regarding the importance of spiritual cultural concepts, leading to modernization of material facilities without a corresponding development of cultural awareness. As a result, policy advocacy does not achieve the desired effect, and there is a notable deficiency in legal consciousness.

#### ***Weak communication and execution ability between organizations***

First, there is poor internal communication among the organizations. According to the implementation measures of the long river system policy, a special river system office has been established to comprehensively promote the execution of the long river system policy. This office is responsible for enhancing communication among the departments directly involved in river management. These departments are tasked with clarifying their respective responsibilities through official documents issued by government entities. However, during the actual implementation of the long river system, the grassroots leadership plays a critical role in overseeing the entire operation. Due to discrepancies in departmental divisions and unclear responsibilities among the various management bodies, internal communication and coordination issues often arise. This can lead to conflicts and inefficiencies among departments, as the executors struggle to coordinate with one another, resulting in a lack of effective organization and management across the various entities. Secondly, the execution capabilities among the organizations are weak. Executives at the grassroots level, on one hand, adhere to the policies set forth by their superiors and complete the required upload tasks. On the other hand, many grassroots executives are primarily focused on their heavy workloads. Additionally, the limited funds allocated by superiors, combined with insufficient staffing and various organizational issues at the grassroots level, contribute to symbolic implementation problems. These factors result in significant deviations from the intended dynamic management targets, ultimately leading to poor execution of the long river system policies.

#### ***There are biases in executive cognition and execution***

First, the cognitive biases of the policy executors must be considered. Regarding the river chief system policy, it is essential for executors to enhance their understanding of both the spirit and essence of the policy, as well as the internal regulations and external environment surrounding it, to achieve optimal policy outcomes. Since the implementation of the river chief system policy, the river chief office has focused significantly on external publicity, yet it has not devoted sufficient attention to internal training, which is crucial for fostering a deep understanding of the policy. Second, deviations in the execution of the policy by the executors have been observed. Due to insufficient cognitive engagement with the policy, some executors perceive the responsibility for the protection of river and lake environments as solely belonging to the water conservancy

department. Typically, the head of the party oversees the management of the long river, which can lead to deviations in execution. Furthermore, the capabilities of some executors may not meet professional requirements, resulting in a perfunctory approach to task completion, primarily aimed at appeasing superior inspections. This lack of sustained commitment undermines the long-term effectiveness of lake protection efforts. Additionally, the macro-level assessment indices can create a disconnect in the implementation of the long river system policy, as the process cannot effectively align with the assessment criteria. Consequently, executors may prioritize the completion of tasks over the quality of outcomes, and the absence of a differentiated appraisal system diminishes the value of the basic system for long river management.

## **Promote the optimization of river and lake water environment management in Jingdezhen city**

### *Refine the implementation standards of river chief system and clarify policy objectives*

A policy is often characterized by its fundamental direction and principles concerning policy objectives. It is generally more abstract and general in nature. To facilitate smoother policy execution, it is essential to refine the basic principles and directions under the guidance of both overarching and specific goals. This involves formulating a concrete implementation plan that delineates clear work tasks and objectives, addresses specific issues, and organizes execution activities in an orderly manner. Macro-level policies and vague target standards frequently hinder effective policy implementation. As the implementation of policies becomes more prolonged, the introduction of increasingly complex systems, such as the river chief system, often results in abstract and ambiguous policy standards and targets. The absence of specific, detailed policies and precise planning, coupled with a lack of a comprehensive timeline, contributes to unclear execution outcomes. Therefore, it is crucial to establish detailed implementation standards and accurate targets, as these are prerequisites for the effective execution of the river chief system policy, ensuring clarity and precision in its implementation.

The standards for policy implementation must align with the local development context and be formulated in conjunction with actual problems. This ensures that the policy standards of the river chief system neither lag behind nor advance disproportionately, but rather correspond to the realities of the Jingdezhen river chief system across various dimensions. The formulation of goals within the Jingdezhen river chief system policy should emphasize clear goal positioning, refine the interpretation of policy objectives, and minimize potential misinterpretations by the policy executors involved in the river chief system. The goals should be practically operable and capable of supporting long-term aspirations while remaining grounded in realistic objectives. Furthermore, to enhance the development of the river chief system policy, government departments should prioritize the dissemination of policy information, continuously improve the policy framework, and effectively engage in the interpretation and mobilization of the river chief system policy.

### *Expand the resources for the implementation of the river chief system policies*

With precise and specific policy objectives and standards, the effectiveness of the river chief system's implementation may be compromised if the personnel and institutions responsible for executing the policy lack the necessary resources. Insufficient resources can hinder the achievement of the requirements and objectives outlined during the policy formulation phase, necessitating



substantial investments in capital, manpower, technology, information, and other essential resources. Firstly, capital serves as a critical resource for the successful implementation of the Jingdezhen river chief system policy. Without adequate financial support, the policy's implementation will lack a solid material foundation, resulting in insufficient motivation for execution. Consequently, government departments should enhance their investment in the river chief system policy, explore diverse funding channels, innovate the utilization of investment funds, and optimize the allocation of these resources. Furthermore, funding strategies should not solely depend on government financial subsidies; alternative funding sources should be pursued. For instance, enterprises could contribute through environmental protection taxes, or social personnel could be mobilized to establish a dedicated fund for the management of rivers and lakes under the river chief system.

Human resources are a crucial prerequisite and driving force for the implementation of the river chief system policy. The execution of this policy primarily falls within the purview of administrative departments, and the protection of river and lake environments constitutes a specialized field of work. It is essential to enhance investment in and training for professionals to ensure that river and lake governance achieves its intended objectives. Furthermore, there is a need to promote the establishment of a long-term coordination mechanism that integrates the 'river chief system' with the 'supervisory chief system.' This includes formulating specific measures for collaboration and cooperative implementation, as well as ensuring regular communication regarding the progress of river and lake regulation efforts to strengthen contact. Additionally, it is important to encourage the involvement of non-governmental organizations, individuals, and groups in this initiative, guiding non-governmental river chiefs to participate actively in the protection of rivers and lakes. Effective river and lake governance cannot be achieved through the efforts of a few individuals; it requires the collective engagement of the entire society to foster a shared awareness of river and lake protection. Township (street) units can collaborate to establish a 'He Xiaoqing' volunteer service team to achieve comprehensive coverage, recruit volunteers, and organize volunteer activities.

Third, the implementation process of the river chief system policy necessitates the use of technical software, equipment, and tools pertinent to the policy's execution. Numerous water quality monitoring stations have been established in the river basin of Jingdezhen City; however, historically, the monitoring technologies have varied, the standards have differed, and sharing of monitoring data has proven challenging. The development and enhancement of a unified information platform are essential for addressing information asymmetry and improving the information-sharing mechanism. Leveraging Internet information technology and big data, an integrated water information management and control system can be established. This system will encompass control, decision-making, and a foundational database for urban water environment information, in conjunction with the application of IoT technology. It will enable the monitoring of operational and maintenance data for water conservancy facilities, such as sluices and pumping stations. Furthermore, the decision system will provide a unified scheduling function for vehicles and personnel during flood seasons and emergencies, while the support system will gather and manage construction data related to municipal and water conservancy projects. Additionally, through the establishment of the river chief WeChat public account platform, the general public is encouraged to offer suggestions and engage in ecological protection at any time and from anywhere. Therefore, it is imperative to ensure that the technical and informational resources allocated for the

implementation of the river chief system policy are adequate, necessitating an increase in investment in technical capacity and high-tech resources.

### *Enhance the subjective initiative of the river chief system policy executors*

To enhance the implementation of the river chief system, it is essential to optimize the organizational framework by scientifically and reasonably delineating departmental responsibilities, clarifying management levels, selecting an appropriate organizational structure, and fully leveraging the proactive roles of policy executors. First, it is crucial to provide regular professional training for relevant personnel, reinforcing their theoretical knowledge and improving the professional skills of long river policy executives. This training should cultivate a sense of responsibility, foster a positive working atmosphere, and promote the value identity and execution capabilities of these policy executives. Personnel must comprehend the long river system policy, engage with its spirit, and effectively communicate its principles. Furthermore, those involved in the river chief system's policy implementation should enhance their organizational coordination and communication skills, while also strengthening their sense of responsibility. To facilitate these objectives, a system of regular work meetings should be established. During these meetings, grassroots river chiefs can address work performance at various stages and discuss challenges encountered. This collaborative approach will empower grassroots river chiefs to exercise their initiative and effectively resolve issues through group discussion. Historically, the implementation of the river chief system policy has primarily relied on directives from higher-level government departments, which lower-level departments are expected to follow. However, grassroots river chiefs often face significant challenges in communicating problems encountered during actual implementation. Even when issues are reported, timely solutions are not always forthcoming. The introduction of a regular meeting system addresses the challenges faced by grassroots river chiefs in implementing the river chief system policy, while also enhancing the subjective initiative of the river chief system. Second, it is essential to improve the performance appraisal mechanism of the river chief system. Performance appraisal generally involves assessing the past and present work efficiency of organizational members, which allows for predictions regarding their future work performance. Implementing a performance appraisal system within the river chief policy can establish quality indicators for grassroots river work performance. This system can effectively utilize assessment results to serve both incentivizing and disciplinary functions — rewarding high-quality task completion while imposing certain penalties for subpar performance. Consequently, the performance appraisal system becomes a crucial tool for ensuring accountability within the river chief system. Third, by exploring the establishment of a working model that integrates 'river chief + police chief' and 'river chief + chief procurator,' we can enhance the legal supervision functions of procuratorial organs. This approach will maximize their subjective initiative and facilitate effective connections between law enforcement, evidence collection, public interest litigation, and environmental damage compensation.

### *We will diversify the implementation methods of the river chief system policies*

The river chief system, as a public policy, not only establishes corresponding standards and requirements for the executive staff of government departments during implementation but also modifies the procedures and methods of execution. It aims to enhance the implementation methods

of the river chief system policy. In the actual execution of this policy, it is essential to select reasonable and effective implementation methods tailored to the specific circumstances.

First, by publicizing the policy of the river chief system, residents living along rivers and lakes can be elected as private river chiefs, with certain remuneration provided. This initiative not only increases the income of private river chiefs but also enhances the effectiveness of river and lake environmental protection, thereby yielding greater social benefits. Second, volunteer service teams named "River Xiaoqing" can be established in towns and streets to achieve 100% coverage. These teams will recruit volunteers, conduct volunteer activities, and promote the protection of rivers and lakes, fostering the growth of the river chief system's volunteer team and perpetuating the spirit of volunteerism. Third, the policy of the river chief system should be publicized, and its working mechanism and underlying concepts should be clarified. Additionally, employing highly skilled personnel with expertise in environmental protection to serve as civil river chiefs will provide essential professional knowledge and technical support for the implementation of the river chief system policy. Furthermore, local university faculty members should be encouraged to participate and develop specific plans for the policy's implementation, ultimately enhancing the quality of river and lake environmental protection. Fourth, a cross-regional joint meeting system should be established. Given the nature of cross-basin water pollution, government departments must actively explore a collaborative approach to address river basin water pollution. Currently, China's river basins face significant challenges regarding water quality.

The challenges associated with water environment disputes are primarily addressed through mutual consultations among local governments, coordination by higher government departments, or the traditional litigation methods aimed at resolving disputes related to rivers and lakes within a river basin. The absence of a specialized dispute resolution platform presents significant obstacles to the settlement of these disputes. Therefore, it is essential to establish a cross-regional joint meeting system to facilitate discussions regarding water environmental pollution responsibilities among river basins, thereby fostering a collaborative governance mechanism. Additionally, by enhancing the implementation modes and procedures of the river chief system, it is possible to further the objective of protecting river and lake environments while simultaneously reducing resource expenditure and effectively improving implementation outcomes.

### ***We will improve the environmental system for the implementation of the river chief system and policies***

Currently, the overall economic and political cultural environment exhibits a positive trend in development. However, there remains a deficiency in support for river and lake environmental protection. This highlights the importance of optimizing the implementation of the long river system policy. It is essential to enhance the overall environmental system for the implementation of this policy and to foster a favorable atmosphere for river and lake environmental protection. First, the successful implementation of the river chief system policy requires a favorable economic environment. In recent years, as Jingdezhen's economy has gradually improved, capital investment in the protection of river and lake environments has also increased. This constitutes a positive economic backdrop. Moving forward, it is essential to further enhance capital investment in the river chief system to establish better material conditions. Second, the implementation of the river chief system policy necessitates robust political support. Government backing is crucial for the river

chief system, and government departments should prioritize the protection of river and lake environments. This includes increasing awareness and promoting the implementation of environmental protection measures. With strong governmental support, the execution of the river chief system policy will be more effective.

Third, the implementation of the river chief system policy necessitates the establishment of a conducive cultural environment. It is essential to enhance the publicity surrounding the river chief system policy and to further standardize the establishment of public signage for river and lake chiefs along the banks. Engaging with community residents and addressing issues promptly is crucial. River and lake governance is not solely the responsibility of the government; it requires the active participation of the entire populace. By intensifying long-term outreach efforts through major news media and digital platforms, and integrating environmental protection themes at critical times, we can effectively promote water conservation. This includes utilizing television, online resources, public service advertisements, and brochures to launch a comprehensive lakes protection campaign, thereby raising public awareness of the importance of safeguarding our water environment. Additionally, investment in water conservancy infrastructure upstream and the creation of lakeside theme parks centered around the concepts of 'happiness of lakes' and 'ecological homes' can be beneficial. These parks should reflect the region's unique traditional cultural characteristics, incorporating elements of water culture, water ecology, and water landscapes. This initiative aims to cultivate a societal ethos that values and protects lakes, fostering a genuine 'outdoor classroom' educational environment. Consequently, a robust cultural environment is essential for the effective implementation of this policy, which ultimately serves to safeguard the river and lake water environment in Jingdezhen City.

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