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# *Ecological and Environmental Restoration Liability Judicial Application Dilemmas and Solutions*

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***Abstract:*** Ecological and environmental restoration liability, as a novel form of legal responsibility, has gradually become a crucial means of remedying ecological and environmental damage. However, in judicial practice, its application still faces practical obstacles such as the absence of a systematic institutional guarantee for restoration liability, the narrow scope of liable entities, ambiguous restoration objectives, lack of standardized management for restoration funds, and an underdeveloped oversight system for ecological and environmental restoration. Therefore, to achieve the Chinese modernization characterized by the harmonious coexistence of humans and nature, it is necessary to elevate the judicial application of ecological and environmental restoration liability to a new level. This can be achieved by improving the legal basis for its application, expanding the scope of liable entities, clarifying restoration objectives, refining the regulatory framework for restoration funds, and enhancing the supervision mechanisms for ecological restoration.

## 1. Introduction

The 20th National Congress of the CPC emphasized that ecological civilization development is a fundamental strategy for the sustainable development of the Chinese nation, and that Chinese modernization is characterized by the harmonious coexistence of humans and nature. This underscores the paramount importance of ecological civilization development within the overall framework of the nation's endeavors. With the acceleration of industrialization, environmental damage incidents occur frequently, and the natural recovery cycle of ecosystems is prolonged. Once ecological damage or environmental pollution occurs, rapid restoration in the short term is difficult. The persistence of damaged or polluted states exerts long-term adverse effects on nature and society. Consequently, government attach great importance to the societal issue of ecological and environmental damage. As the optimal means of remedying damaged ecosystems, ecological and environmental restoration has become a key focus for various sectors. At the level of legal norms, the theory of ecological and environmental restoration liability has continuously developed. In 2015, the Interpretation of the Supreme People's Court on Several Issues Concerning the Application of Law in the Trial of Environmental Civil Public Interest Litigation Cases explicitly recognized ecological and environmental restoration liability as a form of tort liability. In 2021, the Tort Liability Book of the Civil Code of the People's Republic of China (hereinafter referred to as the "Civil Code") provided the basis and guarantee for the ecological and environmental damage compensation system, including

restoration liability, in substantive law through specific provisions. Subsequently, the Yangtze River Protection Law of the People's Republic of China dedicated an entire chapter to stipulating ecological and environmental restoration. During the codification process of the Environmental Code, the Expert Draft Proposal for the Environmental Code (Draft) even established a separate book on environmental liability, including a chapter on environmental administrative liability[1].

In recent years, academia has conducted research on the normative construction of the ecological and environmental restoration liability system from various perspectives, providing theoretical guidance for its judicial application. However, an examination of the current legal normative system and judicial practice reveals that China's ecological and environmental restoration system has not yet achieved true systematization. The connotation of ecological and environmental restoration liability remains quite ambiguous, and its legal nature lacks a definitive conclusion. This ambiguity constrains the legal application and practical development of restoration liability in practice. Therefore, to ensure the smooth operation of the ecological and environmental restoration liability system and to identify pathways for its realization, this paper aims to analyze the legal nature of ecological and environmental restoration liability, identify dilemmas in its judicial application, and propose improvement suggestions, thereby facilitating a paradigm shift from "fragmented rules" to a "systematic institution".

## 2. Analysis of the Legal Nature of Ecological and Environmental Restoration Liability

The legal nature of ecological and environmental restoration liability has long been a focal point of academic debate. Various viewpoints have emerged, primarily including the theory of civil liability, the theory of public law liability, the theory of a new type of liability, and the theory of mixed liability. The theory of civil liability distinguishes between private law and public law responsibilities based on the function of compensation. It posits that private law liability aims to compensate for damages, while public law liability aims to restrict public power, maintain social order, and punish wrongdoers. Since ecological and environmental restoration liability exhibits a clear compensatory function, remedying ecological and environmental damage, it is characterized as a special form of civil liability. While seemingly logically consistent on the surface, forcibly characterizing restoration liability as civil liability conflicts with the civil liability system. Civil liability remedies private interests, including victims' personal and property interests. However, ecological and environmental restoration liability remedies only ecological interests, meaning it focuses on restoring damaged ecological service functions and their value, not the entirety of ecological and environmental damage. Its scope of remedy does not encompass victims' personal or property interests.

The theory of public law liability argues that the purpose of restoration liability determines its nature as public law liability, as the autonomy of will inherent in private law may conflict with public interests. Furthermore, ecological and environmental restoration involves significant technical and process requirements; its complexity and technical nature necessitate mandatory public law protection, not discretionary private law provisions. The above points are largely valid. However, this theory also has shortcomings, as it overlooks the supplementary role of private law mechanisms with a private law nature, such as environmental civil public interest litigation and the ecological and environmental damage compensation system, in resolving environmental issues.

The theory of a new type of liability contends that ecological restoration liability encompasses both social restoration and natural restoration. Civil, administrative, and criminal liabilities cannot meet the demands of social restoration, thus only the state should bear this liability. While this theory expands ecological restoration liability to include social restoration, the object of ecological restoration liability should be limited to damaged natural ecosystems, not social restoration. The connotation of social restoration often stems from subjective interpretations, exceeding the limited

scope of legal interpretation. Even if ecological restoration liability could encompass social restoration, it would be difficult for it to bear the heavy responsibility of social restoration. Social restoration involves comprehensive social governance issues, representing a national-level value goal and manifesting as a political responsibility requiring the state to employ various means for integrated governance.

The theory of mixed liability nature argues that provisions related to ecological and environmental restoration exist in civil law, criminal law, and administrative law, signifying a liability with diverse legal characteristics encompassing civil, administrative, and criminal legal responsibilities[2]. This theory essentially evades discerning the nature of the liability. While appearing to accommodate all features of restoration liability on the surface, it fails to genuinely integrate ecological and environmental restoration liability into the legal liability system for understanding and development, thus rendering it inadequate.

The author supports the view that ecological and environmental restoration liability should be understood within the framework of administrative law. The liability borne by polluters and destroyers for ecological and environmental restoration is, in essence, the legal consequence they must face for violating environmental administrative obligations; it constitutes an administrative legal liability that administrative counterparts bear for their illegal acts. Even when the government assumes the responsibility for substituted performance of restoration obligations when the tortfeasor is unknown or incapable, it does so based on its public duty to protect the environment. Furthermore, even if ecological and environmental restoration liability is confirmed through civil judicial procedures, its essential nature as administrative legal liability should not be negated merely because it lacks an "administrative cloak"[3]. In summary, the administrative law attribute of ecological and environmental restoration better aligns with the public nature of environmental governance.

## 3. Judicial Practice Dilemmas of Ecological and Environmental Restoration Liability

### 3.1 Absence of Systematic Institutional Guarantee for Restoration Liability

Ecological and environmental restoration is a large-scale and systematic undertaking. Achieving its objectives solely through scattered provisions in various departmental laws, local regulations, and rules is insufficient; it cannot support an internally unified liability framework. Moreover, the lack of effective linkages between separate laws leads to structural issues like overlapping norms and application conflicts. On the other hand, current Chinese legal provisions mostly focus on the surface level of liability forms and fund management, lacking deeper institutional regulations on liability triggering conditions, the articulation of restoration standards, and multi-stakeholder coordination. In this context, local legislatures attempt to fill institutional gaps by formulating supporting measures. However, disparities in local legislative capacity result in uneven quality of local regulations. Economically less developed regions may simply copy regulations from more advanced areas. This not only hinders the effective implementation of restoration liability, rendering it merely formalistic, but may also negatively impact ecological and environmental protection efforts, impeding the orderly progress of restoration work.

### 3.2 Narrow Scope of Liable Entities for Ecological Restoration

Analysis of Article 1234 of the Civil Code reveals that the liable entities for ecological and environmental restoration are strictly limited to the "tortfeasor". Administrative organs and environmental protection organizations are positioned as "guarantors of obligation fulfillment", as their initiation of substituted performance is contingent upon the tortfeasor's failure to act by the statutory deadline. The restoration actions undertaken by public authorities essentially constitute a

public law guarantee mechanism involving advance payment of costs, with the actual restoration expenses ultimately borne by the tortfeasor[4]. However, relying solely on the tortfeasor to bear restoration liability is inconsistent with the practical needs of current judicial practice. In reality, enterprises that should bear restoration responsibility often adopt a passive attitude, frequently shifting the responsibility for pollution and ecological damage onto the government. This expansion of government responsibility provides enterprises with a perfect excuse to evade liability, significantly reducing their cost of violating the law. Enterprises use the government as a shield, endlessly polluting and damaging the ecology, while the government foots the bill for their actions. This government behavior not only violates the "polluter pays" and "developer protects" principle but also allows polluters to escape responsibility for their actions, lacking fairness and rationality.

Secondly, ecological and environmental pollution cases in practice are highly complex, often involving multiple polluters and chains of causation. Besides direct tortfeasors, there may be other potentially liable parties, such as transporters or suppliers of pollutants. These entities may have indirectly contributed to the ecological damage, but the current law's systemic exclusion of indirect or potentially liable parties results in a severe disconnect between the scope of liable entities and the mechanisms causing the damage. Therefore, legislators should not focus solely on direct responsible parties while neglecting the restoration obligations of potentially liable parties.

### 3.3 Ambiguity of Ecological and Environmental Restoration Objectives

The most ideal ecological and environmental restoration objective is the complete elimination of damage, restoring the damaged area's ecological environment to its pre-damage state. However, in judicial practice, various factors lead to significant gaps between the set objectives and this ideal. Firstly, judicially-led ecological and environmental restoration often focuses on individual cases. When handling pollution cases, courts may address only isolated environmental factors and problems, considering single environmental elements without viewing the entire ecosystem as an organic whole. Simultaneously, constrained by factors like restoration techniques, costs, and timing, there may be a tendency towards pursuing short-term benefits and focusing on completion acceptance when setting restoration objectives for each case, leading to a deviation from legislative goals. A review of judicial cases reveals that the restoration objectives determined in judgments are often overly vague, lacking specificity regarding the concrete goals and methods. Many judgments merely state that the paid ecological restoration funds will be used for restoration, or simply mention environmental maintenance and off-site replanting without specifying the required growth level of replanted trees or the maintenance procedures. Such vague judgments inevitably make execution difficult for the responsible parties.

### 3.4 Lack of Standardized Management for Ecological and Environmental Restoration Funds

The management of ecological and environmental restoration funds is crucial for ensuring the completion of restoration work. However, the absence of unified legal stipulations on fund management and use leads to disparate practices across regions. In judicial practice, the main models include government operation, court-led management, special fund models, and charitable trust models. The government operation model faces potential legitimacy issues due to the complex and difficult procedures for establishing new dedicated fiscal accounts and the challenges of maintaining their lawful existence. Moreover, constrained by limited professional capacity, government finance departments often adopt "extensive management" for budgeting and performance evaluation of restoration funds, reducing management and use efficiency and causing delays in fund disbursement for projects[5]. Public access to information on fund usage is also limited, making it susceptible to issues like embezzlement and corruption that jeopardize fund security.

The model of courts supervising restoration funds also faces dilemmas. Firstly, court execution accounts are temporary in nature and their activation requires an execution application, creating a systemic incompatibility with the need for long-term supervision and dynamic disbursement inherent in restoration funds. Secondly, if courts use special execution accounts to receive restoration payments, it inevitably entails courts assuming responsibilities for inspection, acceptance, and supervision of restoration work. This undoubtedly increases the courts' workload and exceeds their functional scope. In summary, current law fails to clearly designate a specific entity responsible for managing ecological and environmental restoration funds. The absence of a clear management entity makes it difficult to coordinate the allocation of funds across regions and departments, prevents the formation of unified national standards, and poses a severe obstacle to the smooth progress of ecological restoration work.

### 3.5 Underdeveloped Oversight System for Ecological and Environmental Restoration

Ecological and environmental restoration is a long-term project; temporary completion does not signify the absolute end of liability. Subsequent maintenance work is needed to stabilize the polluted ecosystem and restore it to its original or intended functional state, only then can the restoration work be declared complete. However, in the current process of ecological and environmental restoration, the supervision and management stage is not genuinely implemented. The primary reason is the absence of detailed regulatory documents specifying the departments responsible for post-repair work, leading to a regulatory vacuum where oversight ends upon project acceptance in practice. Secondly, in reality, courts and procuratorates possess limited expertise in ecological and environmental science. If only judicial organs conduct targeted follow-up evaluations of restored ecosystems, the monitoring becomes merely formalistic. While environmental administrative departments have technical expertise, the lack of relevant regulatory documents hinders their ability to conduct cross-regional follow-up investigations. Simultaneously, frequent staff turnover within relevant functional departments creates inconvenience for long-term supervision requirements. Typically, due to the extended period required for environmental restoration, the originally responsible personnel may change positions or units, resulting in the follow-up supervision work falling outside their jurisdiction, making it difficult to continue.

Furthermore, the application of ecological and environmental restoration liability necessitates public supervision. However, as the public lacks actual power, their avenues for participating in restoration work are limited and often superficial, hindering their effective role in crucial functions like supervision and suggestion-making. On the other hand, ecological and environmental restoration work is highly specialized and complex, demanding high levels of professional competence and governance capacity from participants. The public, constrained by their own expertise, often finds itself willing but unable to participate effectively. They struggle to conduct precise supervision or offer constructive and targeted suggestions, significantly limiting the positive influence they could otherwise exert in ecological and environmental protection and restoration.

## 4. Solutions to the Judicial Practice Dilemmas of Ecological Restoration Liability

### 4.1 Improve the Legal Basis for Applying Ecological and Environmental Restoration Liability

Facing the confusion in legal provisions regarding ecological and environmental restoration liability, existing laws and regulations should be consolidated. Redundant or conflicting provisions should be streamlined and integrated to better leverage the function of the law[6]. Based on integrating and improving the legal framework for restoration liability, drawing on international experience, consideration should be given to incorporating the ecological and environmental restoration system

into the codification of the Environmental Code. Integrating the concept of restorative justice, a dedicated chapter on restoration liability should provide detailed stipulations on elements of liability, implementation guarantees, and supporting measures. Through systematic reconstruction via codification, the systematization of ecological and environmental restoration liability can be achieved, providing a solid institutional guarantee for the modernization of environmental governance.

### 4.2 Expand the Scope of Liable Entities

Given the complexity of ecological damage and the high professional demands of restoration, the traditional single-entity model of liability is inadequate for practical needs. Expanding the scope of liable entities is an inevitable societal choice. From a comparative law perspective, there is also a trend towards broadening the scope of liable entities. Japan's Soil Contamination Countermeasures Act uses a "pollution behavior relevance" standard to include landowners, managers, and other indirect controllers within the scope of liability[7]. The US Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or Superfund) also evolves from "polluter pays" towards shared responsibility between "polluters" and "potentially responsible parties" (PRPs)[8]. This trend and its underlying legal rationale are instructive for improving China's environmental liability system. Firstly, expand the liable entities for restoration. Include those with substantive risk management and control capabilities, such as producers of pollutants, managers of equipment, parties who tolerate pollution or knowingly assist polluters. Secondly, establish a "dynamic proportional liability" allocation mechanism. Comprehensively consider factors such as the causal contribution of each liable entity, the strength of causation, and their actual capacity to bear responsibility to reasonably allocate liability shares.

### 4.3 Clarify Ecological and Environmental Restoration Objectives

Setting ecological and environmental restoration objectives requires viewing the environment as an organic whole. Through methods like analysis of environmental element interconnections and assessment of ecological service functions, a comprehensive evaluation mechanism should be built to select appropriate target plans. Primary consideration must be given to environmental quality standards. These standards possess a dual nature: their technical attribute is reflected in being based on environmental benchmarks, which are objective facts; their legal attribute is manifested as chosen environmental indicators and limits, synthesized from current environmental quality, socio-economic capabilities, and scientific-technological levels. They can, in turn, guide environmental functional zoning and exert legal binding force through legal norms that reference them[9].

Secondly, social, economic, and technological factors must be comprehensively considered. The environment is shared by the public, and its damage infringes upon the public interest. Therefore, when confirming restoration objectives, the needs of various stakeholders must be heard and reasonably reconciled. Technologically, it is essential to comprehensively assess current technical capabilities and ensure the availability of feasible technical support solutions. Economically, the financial feasibility of restoration plans must be evaluated to avoid situations where tortfeasors are unable to pay the restoration costs. Overall, when setting ecological and environmental restoration objectives, one should start from the organic integrity of the ecosystem, distinguish the interconnections between different environmental elements, and comprehensively consider factors such as technical feasibility, economic viability of the plan, public acceptability and participation, national laws, regulations, and standards, and reducing environmental exposure[10].

### 4.4 Refine the Regulatory System for Ecological Restoration Funds

A sound ecological and environmental restoration fund management model should combine security with purposefulness. Firstly, as mentioned, the current public authority-led models suffer from administrative inefficiency and insufficient transparency in fund usage. In practice, an independent Ecological and Environmental Restoration Special Foundation could be established to manage and utilize the funds. The foundation would have an internal management committee responsible for fund auditing. Simultaneously, procuratorial organs and environmental departments would supervise the foundation's operations to ensure its effective functioning and the optimal use of funds. Secondly, to ensure sufficient funding, multiple funding sources should be tapped. Legally defined funds, such as ecological and environmental damage compensation payments and illegal gains confiscated in environmental pollution criminal cases, should form the basic capital.This creates a risk-sharing mechanism, ensuring a certain level of restoration funding while maintaining business operations, thereby facilitating environmental restoration. In summary, market-oriented operations and the infusion of social capital should be leveraged to broaden funding sources[11], ensuring fund usage aligns with security and purpose, steadily advancing China's ecological and environmental restoration development.

### 4.5 Enhance the Supervision Mechanism for Ecological and Environmental Restoration

Ecological and environmental restoration work demands high expertise and spans long timeframes. Judicial organs and environmental administrative authorities must collaborate closely to effectively oversee the restoration process. Firstly, after the judicial trial process concludes, judicial organs should proactively transfer judgments involving ecological and environmental restoration to ensure timely initiation and progress of the work. This process should be principle-based on proactive transfer by judicial organs, not reliant on applications from relevant parties. Upon initiating execution, local environmental administrative departments should be promptly notified, and all information related to the restoration should be fully shared with them. Secondly, environmental authorities must actively fulfill their responsibilities. When pollution occurs, they should organize professionals for field investigations to provide expert opinions on the extent of damage, determination of restoration funds, formulation of restoration plans, and feasibility analysis, ensuring high-quality completion of restoration work. Environmental authorities play a vital role in ecological restoration. When encountering difficulties or problems during implementation, they should report them to judicial organs to facilitate corresponding judicial rulings.

Finally, fulfilling ecological and environmental restoration liability requires broad public participation and supervision. The government has a responsibility to promptly disclose the progress and outcomes of restoration cases involving public interests through online platforms and other channels, enabling the public to understand the specifics of the work and thereby exercise their supervisory role. Simultaneously, social organizations should be encouraged to actively participate in supervision. As legitimate plaintiffs in environmental public interest litigation, environmental organizations possess specialized knowledge and extensive experience in environmental protection, giving them a profound understanding of environmental damage and restoration needs. Therefore, during the implementation of restoration work, these organizations should be supported in supervising restoration measures, objectives, and outcomes to ensure quality and effectiveness. This approach enhances the transparency and public participation within the restoration liability system, improving the efficiency and effectiveness of the restoration work.

## 5. Conclusion

The ecological environment is the prerequisite for human survival and development. A sound ecological environment is the fairest public good and the most inclusive benefit for people's livelihoods[12]. As the key material foundation for the existence of human society, the ecological environment serves as the environmental bedrock for socio-economic progress and is crucial for the public's pursuit of spiritual well-being. As the severity of ecological and environmental damage intensifies, the effective fulfillment of ecological and environmental restoration liability holds significant importance for China in healing ecological wounds and practicing the concept of ecological civilization development. Facing the challenges and shortcomings in the judicial application of this liability, we must adopt practical and effective measures to advance ecological and environmental restoration work. This will enable the timely restoration of the ecological environment, realize the harmonious coexistence of humans and nature, build a Beautiful China, and compose a new chapter in ecological civilization.

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