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The Burden of Proof in Environmental Administrative Public-Interest Litigation: Dilemmas and the Way Forward

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Abstract: As a distinctive administrative-litigation institution, environmental administrative public-interest litigation represents a novel legal practice in ecological and environmental protection. In practice, however, there remain conspicuous legislative gaps concerning the burden and standard of proof, and judicial understanding of these issues diverges. This paper analyzes the practical dilemmas of the burden of proof in environmental administrative public-interest litigation—unclear allocation rules, difficulties in collecting evidence, and inconsistent standards of proof—and proposes corresponding improvements. It argues that the court should allocate the burden of proof among the parties flexibly in light of the professional and technical complexity of the environmental damage at issue, that general facts of infringement should be established under the ‘high-probability’ standard, and that relatively complex legal facts should be established with reference to the ‘beyond reasonable doubt’ standard.

Keywords: environmental administrative public-interest litigation; burden of proof; standard of proof; improvement measures

1. Introduction

With the rapid development of the economy and the acceleration of industrialization, environmental problems have become increasingly severe on a global scale and a focus of attention for countries around the world. Entering a new era, ‘the harmonious coexistence of humanity and nature’ has become one of the important features of Chinese-style modernization, which further demands the construction of a more refined environmental risk-prevention mechanism at both the policy and institutional levels. In recent years, the environmental administrative public-interest litigation system is a brand-new Chinese solution proposed by China for the protection of the ecological environment.

In the context of the new era, environmental administrative public-interest litigation refers to the litigation that a procuratorial organ, deeming that an administrative organ charged with environmental supervision has, in environmental protection, engaged in unlawful omission or arbitrary action that has harmed the environmental public interest, brings before a people’s court according to law [1]. Under this litigation system, the burden of proof borne by each party is one of the core issues. However, because the causes of environmental pollution are diverse, complex, and specialized, collecting evidence is extremely difficult. In the proceedings of environmental administrative public-interest litigation, where the procuratorial organ acts as the plaintiff, how the court allocates the burden of proof among the parties becomes particularly important if the procuratorial organ is to achieve its purpose of proof. If the burden of proof is allocated unreasonably, environmental violations may escape the sanctions they deserve, and the environmental public interest may not be effectively protected. Conversely, if the standard of proof imposed on the defendant is too high, it may also affect the normal law-enforcement activities of administrative organs and reduce administrative efficiency. Therefore, both the allocation of the burden of proof and the unification of the standard of proof bear upon the realization of the purpose of this litigation system. Hence, an in-depth study of the

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burden of proof in environmental administrative public-interest litigation is of important theoretical and practical significance.

1.1. The Significance of Clarifying the Burden of Proof in Environmental Administrative Public-Interest Litigation

Concept and Characteristics of Environmental Administrative Public-Interest Litigation: As stated above, environmental administrative public-interest litigation refers to a litigation system under which a procuratorial organ, holding that an administrative organ, in the course of environmental administration, has unlawfully exercised its authority or failed to act, thereby causing the ecological environment to suffer damage or risk of damage, files a suit with a people's court according to law. In essence, environmental administrative public-interest litigation is administrative litigation, and its purpose is to urge administrative organs to perform their environmental-protection duties through judicial means so as to safeguard the environmental public interest.

Compared with other types of litigation, environmental administrative public-interest litigation has notable characteristics. First, the plaintiff is typically a procuratorial organ [2]. On this point, some scholars have argued that, to further safeguard the public interest of the ecological environment, the subjects entitled to bring environmental administrative public-interest litigation should be gradually broadened and diversified [3]. Second, the object of litigation is specific [4]; that is, the defendant in environmental administrative public-interest litigation is mainly the administrative organ charged with environmental supervision and administration, and the litigation targets the unlawful administrative acts or omissions of these administrative organs in environmental administration. Third, environmental administrative public-interest litigation is to a certain extent preventive. Unlike environmental civil public-interest litigation, which usually focuses on remedying damage that has already occurred (i.e., ex post relief), environmental administrative public-interest litigation places greater emphasis on the ex ante protection of the environmental public interest.

1.2. The Significance of the Burden of Proof in Environmental Administrative Public-Interest Litigation

The burden of proof, also called the burden of adducing evidence, refers to the responsibility of a party, in the course of litigation, to provide evidence in support of its claim so that the court will uphold it; however, if, at the conclusion of the litigation, the facts of the case remain unclear (non liquet), the party bearing the burden of proof will suffer the adverse procedural consequences [5]. From this definition, it can be seen that the burden of proof essentially comprises two aspects: the burden of production (behavioral responsibility) and the burden of persuasion (outcome responsibility) [6]. The burden of production refers to the active responsibility of a party to provide evidence in support of the claim it has advanced, i.e., the party has the obligation actively to collect and provide evidence to support its own claims or to rebut the opposing party's claims. In environmental administrative public-interest litigation, the so-called burden of production means that the parties must provide evidence to prove their purpose of proof. For example, the procuratorial organ must submit the corresponding evidence to prove that the administrative organ engaged in the unlawful exercise of authority or an omission, and that, as a result, the environmental public interest has suffered damage or there is a high probability of such damage. Conversely, the burden of persuasion means that, when the facts of the case are still unclear at the conclusion of the litigation, the party bearing the burden of proof bears the adverse consequences; this is the core and crux of the burden of proof, and it reflects its allocating function [6]. In the proceedings, the burden of production and the burden of persuasion are mutually complementary. For instance, in environmental administrative public-interest litigation, only by first discharging the burden of production and actively providing evidence can the defendant administrative organ possibly avoid bearing the adverse burden of persuasion. If the administrative organ ultimately bears the burden of persuasion, it must be because it failed properly to discharge the burden of production.

Based on the institutional features and the purpose of environmental administrative public-interest litigation, clarifying the burden of proof is of paramount importance. A reasonable allocation of the burden of proof helps accurately ascertain the facts of environmental-damage cases and determine the liability for damage remediation [7]. Because environmental problems are complex, specialized, and latent, assigning the entire burden of adducing evidence to either party alone would be detrimental to ascertaining the facts and would also deviate from the original intent of the system. An explicit allocation of the burden of proof by the court can guide the parties to collect and provide evidence in a targeted manner, helping the court to understand the facts comprehensively and objectively. Secondly, a reasonable allocation of the burden of proof is also an important safeguard for achieving procedural justice. In environmental administrative public-interest litigation, the status and capacity of the plaintiff and the defendant often differ. Administrative organs usually possess a large amount of first-hand information and resources and have strong investigative and evidence-collecting capacity, whereas the plaintiff, as a procuratorial organ, may face certain difficulties in collecting evidence. A comparatively reasonable allocation of the burden of proof can balance the litigation status of both sides and ensure that they enjoy equal procedural opportunities and rights. Finally, a reasonable allocation of the burden of proof is also conducive to improving litigation efficiency. China's trial system adopts the *ex officio* (inquisitorial) model; in environmental administrative public-interest litigation, having the court, according to law, take the lead in allocating an explicit burden of proof among the parties [8] enables each party to know clearly what evidence it must provide, avoiding unnecessary adducing and cross-examination of evidence in the proceedings and reducing delay and waste in the proceedings. At the same time, the court can, in accordance with the rules on the burden of proof, quickly and accurately ascertain the facts and render a just judgment, thereby improving judicial efficiency.

2. Practical Problems Concerning the Burden of Proof in Environmental Administrative Public-Interest Litigation

2.1. Unclear Rules for Allocating the Burden of Proof

Although, when China revised the Administrative Litigation Law in 2017, it established the environmental administrative public-interest litigation system in legislation for the first time [9], in respect of the allocation of the burden of proof, although there are relevant statutory provisions, notable ambiguity remains.

The Administrative Litigation Law also stipulates the burden of proof borne by administrative organs [9]. However, in environmental administrative public-interest litigation, this provision may not fully take into account the special nature of environmental problems, with the result that, in concrete cases, the scope of the burden of proof to be borne respectively by the plaintiff and the defendant is difficult to define precisely. For example, on the question of establishing the causal relationship in environmental pollution, unlike in environmental tort in civil disputes, the law does not clearly specify whether the burden of proving the existence of a *prima facie* causal relationship should be borne by the plaintiff or by the defendant. The absence of clear legislative guidance has led to divergent understandings and outcomes in practice. In addition, the relevant judicial interpretation also contains provisions on the burden of proof borne by the procuratorial organ in bringing environmental administrative public-interest litigation [10], but these provisions remain insufficiently comprehensive and give no clear guidance on a number of key issues. As a result, in judicial practice, when dealing with specific cases, judges lack clear legal grounds for accurately allocating the burden of proof, which readily gives rise to uncertainty in the judgment.

2.2. Difficulties in Collecting Evidence and Meeting the Established Burden of Proof

Environmental damage evidence is easily lost, and its collection requires highly specialized means, which makes evidence collection difficult. Environmental pollution is often a dynamic and continuing process: pollutants may diffuse, dilute, or undergo

chemical reactions over time, making evidence difficult to preserve for long. For example, where a social subject unlawfully burns refuse and causes serious air pollution, because the pollutants diffuse rapidly in the atmosphere and may change within a short time, if professionals are not promptly dispatched to collect and fix the evidence by professional methods and with professional equipment, it will be difficult to accurately determine the source, composition, and concentration of the pollution. Even where corresponding evidence has been collected, after the procuratorial organ brings environmental administrative public-interest litigation, how to determine whether such evidence is sufficient to achieve its purpose of proof usually also requires personnel with specialized knowledge to interpret the evidence. Because different professionals possess different social experiences and the like, they may have different understandings and judgments of the same environmental evidence, which likewise increases the difficulty of evidence evaluation.

2.3. Lack of a Uniform Standard of Proof

Owing to the absence of explicit rules on the standard of proof, courts in practice differ considerably in their grasp of the standard of proof, which directly affects the outcome of cases. In judicial practice, the findings of different courts present situations in which like cases are decided differently. This is especially true of the standard for determining the precondition for bringing environmental administrative public-interest litigation: whether the administrative organ has committed an omission.

Some courts, when hearing environmental administrative public-interest litigation cases, set the standard of proof too high, over-emphasizing the completeness and certainty of the evidence and requiring the plaintiff to provide conclusive and unassailable evidence proving the unlawful act or omission of the administrative organ and the resulting damage to the environmental public interest (i.e., adopting a 'result standard' to determine whether the administrative organ has discharged its duty to act [11]); otherwise, the plaintiff's claims are dismissed. Such an excessively high standard of proof places the procuratorial organ under enormous evidentiary pressure in the litigation, and even if the administrative organ has indeed committed an unlawful act or omission, the plaintiff may lose the case because it cannot meet the excessively high standard. Other courts, by contrast, apply the standard of proof more loosely and, where the evidence is insufficient and the facts are not clear, readily uphold the claims of either the plaintiff or the defendant, undermining the fairness and authority of the judgment. For example, in a certain environmental administrative public-interest litigation case, the court adopted a 'conduct standard' to determine whether the administrative organ constituted an omission [12]; during the hearing, the evidence provided by the plaintiff could only *prima facie* prove the possibility that the administrative organ had supervised inadequately, but in the absence of sufficient and direct evidence proving that the ecological environment had suffered actual damage, the court still ruled that the administrative organ should bear responsibility.

The divergence among courts in their grasp of the standard of proof for the performance of duties by administrative organs means that similar cases may receive radically different judgments in courts of different regions. This not only undermines the fairness and authority of the administration of justice but is also detrimental to the environmental-protection purpose of the environmental administrative public-interest litigation system.

3. Proposals for Improvement

At present, environmental administrative public-interest litigation remains a new litigation system. Imperfections in both legislation and judicial practice are, for the time being, unavoidable. The law is inherently conservative and lagging in character and needs to be further refined in judicial practice. In light of the problems concerning the burden of proof in the environmental administrative public-interest litigation system, further

enrichment and improvement are still needed to achieve the institutional purpose of ecological and environmental protection.

3.1. Clarify the Rules for Allocating the Burden of Proof

Clarifying the rules for allocating the burden of proof by means of legal interpretation is of reference value for the environmental administrative public-interest litigation system. As a litigation system that is not yet fully mature, whether environmental administrative public-interest litigation should have its own distinctive institutional language or should draw on other litigation procedures remains open to debate. Before that question is resolved, formulating special rules for the allocation of the burden of proof in environmental administrative public-interest litigation, and refining the burden of proof borne by the plaintiff and the defendant under different circumstances, is an implementable option. Under such rules, where the procuratorial organ is the plaintiff, the scope and degree of its initial burden of proof should be specified: it need only provide prima facie evidence proving the possibility that the administrative organ has unlawfully exercised its authority or failed to act, together with signs that the environmental public interest may have been infringed, in order to initiate the proceedings. Once the procuratorial organ has discharged this initial burden of adducing evidence, the burden of proof shifts to the defendant administrative organ, which must prove the lawfulness of its administrative act comprehensively and fully, including providing the evidence on which the administrative act was based, the normative documents relied upon, and the relevant evidence proving that it has discharged its supervisory duties.

If, in the course of the hearing, professional and technical environmental issues are involved, the circumstances and conditions for the reversal of the burden of proof should be further clarified [13]. Allocating the burden of proof between the parties through the court can maintain the consistency of the rights and obligations of each party in the litigation. For example, where a case involves complex environmental-monitoring data, the establishment of a causal relationship of pollution, and other professional questions, if the administrative organ possesses the relevant professional technology and capacity to adduce evidence while the procuratorial organ, as plaintiff, has difficulty obtaining such evidence, the burden of proof should be reversed and borne by the administrative organ.

3.2. Improve the Evidence-Collection System

The prosecuting subject should be granted broader investigative and evidence-collecting powers, and its rights and obligations in the course of investigation and evidence collection should be clarified. At the same time, the relevant provisions on the preservation of evidence should be improved, and the conditions, procedures, and measures for initiating evidence preservation should be clarified.

Even if the allocation of the burden of proof is reasonable, attention must still be paid to the capacity to collect evidence. Although the mainstream view holds that the subject that brings environmental administrative public-interest litigation is the procuratorial organ, as environmental problems receive greater attention, this litigation subject may well expand to other lawful subjects. If environmental administrative public-interest litigation is brought by a social subject other than the procuratorial organ, it will be urgently necessary for the court to grant it broader investigative powers when investigating and collecting evidence. Taking the procuratorial organ as an example, it should, in the course of investigation and evidence collection, be granted the power, when necessary, to compel the attendance of relevant witnesses and to require administrative organs and enterprises to provide the relevant evidence, so as to resolve the resistance and difficulties currently faced by the procuratorial organ in investigating and collecting evidence. At the same time, an evidence-assistance system may be explored, stipulating that administrative organs, social enterprises, and other relevant entities and individuals are obliged to assist the public-interest plaintiff in investigating and collecting evidence, and that those who refuse to assist shall bear the corresponding legal liability. Where evidence may be lost or be difficult to obtain later, a party may apply to the court for the preservation of evidence, and the court should examine and rule on the application within

a prescribed time limit. For environmental evidence that is volatile or perishable, special preservation measures should be adopted, such as the use of professional sampling equipment and preservation reagents, to ensure the integrity and authenticity of the evidence.

3.3. Establish a Reasonable Standard of Proof

In accordance with the features and actual circumstances of environmental administrative public-interest litigation, a diversified standard-of-proof system should be established: the standard for determining the precondition for bringing environmental administrative public-interest litigation should be unified [14], while the question of the burden of proof in the course of litigation should adopt diversified standards, so as to ascertain the facts and determine the legal liability flexibly.

Not all environmental-damage cases involve complex facts, numerous legal relationships, and specialized evidence. For some simple environmental administrative public-interest litigation cases, where the facts are comparatively clear and the evidence is relatively easy to obtain, the 'high-probability' standard in civil litigation may be borrowed: that is, so long as the evidence provided by one party is more persuasive than that of the other, and the opposing party cannot adduce corresponding counter-evidence sufficient to affect the judge's inner conviction, the judge may find that the party's claim is more likely to be established, and the claim of that party may be upheld. For cases involving major environmental damage, complex professional and technical issues, or significant social impact, the 'high-probability' standard should be the principal standard, supplemented by the 'beyond reasonable doubt' standard of proof [15], and the burden-of-proof system should be used to regulate the ascertainment of the facts. In establishing the unlawful act or omission of the administrative organ and the damage to the environmental public interest, the evidence should reach the degree of 'beyond reasonable doubt' to ensure the accuracy and reliability of the facts of the case; for the establishment of certain auxiliary facts, the high-probability standard may be applied, and as long as the judge can be satisfied on the evidence that the existence of the fact is more probable, it may be found established.

3.4. Introduce Diversified Means of Proof

Evidence of environmental violations collected and analyzed using big-data technology should also be accorded a certain degree of probative value. On the one hand, in the field of environmental administration, with the development of AI technology, environmental supervision and protection agencies will also integrate various environmental data resources, apply data-analysis algorithms to perform correlation analysis and trend prediction on the data, and promptly carry out relevant acts in response to anomalies in the environmental data. After environmental administrative public-interest litigation is brought, the legislative and judicial authorities should also attach importance to the big-data evidentiary materials retrieved and collected by the prosecuting subject. On the other hand, with the aid of artificial-intelligence technology, the intelligent analysis and evaluation of environmental evidence can also be realized. The development of an AI-based environmental-evidence analysis system can automatically identify and analyze environmental-monitoring data, satellite remote-sensing images, and the like, extract key information, and assist judicial personnel in examining evidence and ascertaining facts. For example, using image-recognition technology to analyze satellite remote-sensing images to identify environmental problems such as vegetation destruction provides intuitive evidence for environmental administrative public-interest litigation.

3.5. Strengthen the Participation of Social Organizations and the Public

Environmental-protection social organizations should be encouraged to participate in environmental administrative public-interest litigation and provided with the necessary support and safeguards. Pre-litigation, the procuratorial organ may promote the establishment of a public reporting and evidence-provision reward system for

environmental administrative public-interest litigation, granting material rewards to members of the public who provide effective evidence and leads of environmental violations, thereby stimulating public enthusiasm for participation in environmental protection and supervision while further lowering the difficulty of proof borne by the procuratorial organ. During the litigation, an incentive mechanism for social organizations to participate in environmental administrative public-interest litigation should be established, granting certain material rewards and honorary commendations to social organizations that actively participate in the litigation and testify in court and achieve good results, so as to enhance the enthusiasm of the public for participation. At the same time, public education on environmental protection and legal knowledge should be strengthened to raise the public's awareness of environmental protection and of the law, enabling the public to understand the significance and role of environmental administrative public-interest litigation and how to collect and provide evidence, thus providing more sources of evidence and social support for environmental administrative public-interest litigation.

4. Conclusion

As an important legal institution for ecological and environmental protection, environmental administrative public-interest litigation needs to be further improved at the institutional level. Clarifying the burden of proof and the standard of proof in environmental administrative public-interest litigation is conducive to guiding the improvement of the law and the unification of judicial practice, and to advancing the fair and efficient conduct of the litigation proceedings; more importantly, clarifying the burden of proof borne by each party is also conducive to realizing the core purpose of this institution: the prevention and protection of the ecological environment.

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