ISSN 2616-7433 Vol. 5, Issue 13: 7-14, DOI: 10.25236/FSST.2023.051302

Legal Fragmentation in Cross-Border Environmental Disputes: A Treaty-Based Regime

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Abstract: *This paper rigorously examines the complexities and challenges posed by legal fragmentation within the current treaty-based civil liability regimes, especially as they relate to dispute resolution in cross-border environmental cases. Analyzing the inherent limitations of existing systems, the paper probes into the underlying reasons for governments' hesitation to partake in and ratify civil liability treaties, pinpointing issues such as conflicting national interests, contentious treaty content, and prohibitive transaction costs. Moving beyond mere identification of challenges, the study offers a thorough investigation into multifaceted solutions designed to enhance international collaboration and commitment. Strategies explored include the judicious implementation of liability caps to protect domestic interests, the creation of compensation funds to provide assurance for victims, the innovative concept of 'issue linkage' to bridge disparate interests, and comprehensive legal methodologies that transcend traditional approaches. Together, these interwoven solutions aim to forge a more resilient, responsive, and effective international legal framework, contributing positively to both environmental protection and legal coherence.*

Keywords: *Legal Fragmentation, Treaty-Based Regime, Cross-Border Environmental Disputes, Transnational Corporation*

1. Introduction

Legal fragmentation is a widespread phenomenon in contemporary legal systems around the world[1], demanding improvement to foster international cooperation in various legal fields. This issue is particularly pronounced in environmental regulations, where the laws of different countries often reflect a fragmented legal landscape. Such fragmentation complicates the resolution of cross-border environmental disputes involving transnational corporations, largely due to contentious issues surrounding the liability of parent companies. The international treaty-based regime, viewed as a potential method to address legal fragmentation, has intrinsic limitations that necessitate enhancement.

Currently, the challenges posed by legal fragmentation are widely recognized and analyzed by numerous scholars[2][3]. Some argue that legal fragmentation is a global phenomenon, proposing various solutions[3]. According to Fischer-Lescano and Teubner, the fragmentation of global law is a highly complex matter and influenced by policy-making process of different countries[4]. This fragmentation significantly complicates cross-border environmental disputes due to liability issues[5]. In this context, international treaty-based regimes are under study and exploration to bridge the legal gaps between different countries[6]. However, the current treaty-based regime is falling short, as evidenced by numerous ineffective liability treaties[7]. Thus, there is a pressing need for improvements to the current treaty-based regime.

This paper seeks to explore the influence of legal fragmentation and potential enhancements to the current treaty-based system, offering insights for policymakers and researchers. It is structured as follows: Chapter 2 examines the *status quo* of legal fragmentation and its broader implications. Chapter 3 analyzes the influence of legal fragmentation on cross-border environmental disputes, focusing on challenges related to liability. And Chapter 4 illustrates the limitations of the current international treaty-based regime and proposes corresponding solutions.

By delving into these complex issues, this paper aims to contribute to a more coherent understanding of legal fragmentation and provide practical recommendations for strengthening international cooperation through treaty-based regimes.

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2. The Status Quo and Development of Legal Fragmentation

Currently, legal fragmentation and legal unification processes are developing simultaneously. While conflicts in laws and regulations exist, reconciliations are also being established at the same time. However, legal fragmentation is a challenging and unavoidable issue. Unlike 'diversity', which is generally seen as a positive attribute that needs protection, 'fragmentation' emphasizes conflicts between regulations, implying an existing problem.

Legal fragmentation often occurs among different legal regimes, each with its unique set of rules, yet governing the same conduct. For instance, different countries may have their regulations towards the same issue. Governments worldwide pay attention to their criminal system, economic development, and environmental protection policies, but specific regulations may differ between countries. For example, in environmental protection, regulations of pollutant discharge limitations and punishments for environmental damage vary among nations.

Besides, even the same legal doctrine can have different meanings within different legal departments. The concept of proportionality may differ between international humanitarian law and human rights law, for instance[8]. Sometimes, regulations governing the same legal relationship may be in total conflict. When trade-related law and human rights law regulate generic drug production, their objectives are entirely different, focusing on intellectual property rights protection and public health, respectively.

Legal fragmentation is reflective of the broader fragmentation within global society, making the unification of global law and society a challenging goal. With the continued development of various countries' legal systems, legal fragmentation may even intensify. However, some weak normative compatibility might still be achieved. There are trends towards legal unification. Communication is becoming more convenient worldwide, and legal transplants are more common. The advanced legal systems of some countries can inspire other nations, leading to gradual convergence in legal systems. International agreements and conventions have prompted some countries to harmonize their national laws, resulting in gradual unification. Furthermore, the development of conflict-of-law principles has helped harmonize global laws to some extent, providing a way to address challenges caused by fragmentation. Nevertheless, legal fragmentation remains a complicated and unavoidable issue in the short term.

Fundamentally, legal fragmentation across countries stems from different policies among organizations and regulatory regimes. Current legal fragmentation also pervails in the field of environmental law, particularly between high-income and low-income countries. This fragmentation further complicates the resolution of cross-border environmental disputes.

3. Legal Fragmentation and Cross-Border Environmental Disputes

3.1. The Gap of Environmental Law between High-Income and Low-Income Countries

The divergence in environmental law across various nations, reflecting their unique legislative practices and developmental histories, is a hallmark of legal fragmentation. This gap is most pronounced between high-income and low-income countries.

Firstly, the environmental regulations differ between high-income and low-income countries due to distinct environmental challenges. High-income countries, having experienced earlier industrialization, face issues such as air and water pollution, land contamination, and carbon emissions. Thus, their laws prioritize pollution control and other protections, including biodiversity and noise control. Conversely, low-income countries focus on improving economic development to alleviate poverty and promote modernization. Their environmental regulations concerning pollution control are often less developed, and corresponding standards are usually lower than those in high-income countries.

Secondly, the differing priorities between high-income and low-income countries manifest in their environmental regulations. High-income countries typically place greater emphasis on pollution control, resulting in higher environmental standards. In contrast, low-income countries prioritize economic development, maintaining lower environmental standards to reduce potential obstacles to growth. While high-income countries can afford to focus on environmental protection to enhance public welfare, low-income countries view economic progress as vital to improving people's well-being. Consequently, their environmental regulations are generally more lenient, aiming to attract foreign investment and minimize barriers to local industry development.

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Thirdly, political policies play a crucial role in shaping the contrasting attitudes of high-income and low-income countries toward environmental protection. Environmental resources, as common resources, require collaborative efforts from all nations to ensure effective protection. The phenomenon of 'free riders' concerning environmental protection further complicates this issue[9]. For example, carbon dioxide emissions in one country may benefit its economy but adversely affect the global ecosystem. Low-income countries may prioritize economic development as their 'political correctness', whereas public opinion and social progress prompt high-income countries to emphasize environmental protection. Moreover, low-income countries often argue that high-income nations should bear more responsibility for current environmental challenges and contribute more to ecosystem protection.

Furthermore, the development of international trade potentially widens the gap in environmental laws between high-income and low-income countries. Although no definitive evidence proves that international trade disproportionately benefits high-income countries at the expense of the environment in developing nations, trade undeniably influences environmental law development. To attract foreign investments, low-income countries may be reluctant to enact stringent environmental standards and laws. Simultaneously, international trade enables high-income countries to transfer polluting factories outside their borders, profiting economically without bearing the environmental costs.

In the intricate landscape of legal fragmentation, the disparities in environmental laws between different countries highlight the need for collaboration. Under this circumstance, it is suggested that countries with advanced legal mechanisms take the lead by enhancing the social responsibilities of their companies. By introducing targeted legislation and judicial reforms, these countries can enforce stricter environmental standards. Concurrently, they could transfer essential technologies and expertise related to environmental protection to low-income nations. Meanwhile, low-income countries should reevaluate their development strategies, with sustainable development offering a potential pathway to balance economic growth and environmental preservation.

Besides, international organizations also have a pivotal role in bridging this gap. Entities like the World Bank have become increasingly environmentally conscious in their activities, integrating environmental impact assessments into standard loan procedures. This multifaceted response requires coordination, technological transfer, reevaluation of policies, and strong international governance. By fostering a collective and proactive approach, we can overcome the legal fragmentation in environmental laws and recognize our shared stake in the global environment.

In summary, the gap in environmental laws between high-income and low-income countries is a multifaceted issue, emblematic of legal fragmentation. This disparity arises from differences in environmental challenges, priorities, political policies, and the influences of international trade. These factors collectively contribute to a complex landscape of cross-border environmental disputes, underscoring the need for nuanced solutions that recognize the unique contexts and needs of different nations.

3.2. The Following Liability Problems of Cross-Border Environmental Disputes

The disparity in environmental laws between high-income and low-income countries gives rise to significant issues in the civil liability of transnational corporations for cross-border environmental disputes. Whether the home and host states are high or low-income, the gap persists and exerts influence.

Firstly, this divergence in laws can attract pollution transfer from high-income to low-income nations, lured by lower environmental standards. Transnational corporations, particularly those from high-income countries, are motivated to establish foreign affiliates in low-income countries, given the cheaper natural resources, potential market advantages, and reduced costs for pollution treatment. In detail, the 'go out strategy' of transnational corporations from high-income countries is often motivated by the pursuit of economic profit. They find low-income countries appealing for collecting raw materials, exploring new markets, and taking advantage of lower environmental standards. This includes relocating polluting but profitable factories, leading to the transfer of pollution from developed to developing countries.

Secondly, some activities of transnational corporations may cause environmental damage in host states, with the fragmentation of global law and the gap in environmental laws between high and low-income countries as potential influencing factors. This inequality in legal standards highlights the complexity of global environmental regulation and causing pollution transfer, which results in high risk of environmental damages in host states.

Furthermore, the gap in environmental laws also affects the possible liability issues and compensation

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amounts determined by relevant authorities in home and host states. In detail, because of the principle of limited liaiblity, which is widely recognized in company laws of many countries, parent companies are not liable for enivronmental damage caused by their foreign affiliates. However, this disparity seems unjust because parent companies take part in management and profits sharing of their foreign affiliates. Hence victims of environmental damage caused by transnatioanl corporations in low-income countries may pursue more substantial compensation by suing parent companies in their high-income home countries. This choice to seek legal redress in more affluent nations leads to an uptick in litigation, reflecting the underlying legislative discrepancy between high-income and low-income states.

In summary, the gap in environmental laws between high-income and low-income countries results in several consequential issues, especially pollution transfer, differing compensation for environmental damage, and increasing cross-border litigation. The economic development targets and the legislative factor behind these problems call for a unified global approach to address these challenges.

4. The International Treaty-Based Regime of Environmental Protection

Currently, most environmental disputes involving transnational corporations are addressed under national legal systems. However, the complexities of cross-border interactions and the immense power wielded by some transnational corporations have revealed the limitations and inefficacies of domestic laws. The international nature of these disputes often leaves host states hesitant to impose strict environmental standards on corporations, especially if those businesses contribute significantly to the local economy. Sometimes, transnational corporations may even wield more influence than the governments of host states, particularly in low-income regions[7].

Simultaneously, home states are often reluctant to control the hazardous activities of their foreign affiliates. This reluctance stems not only from the economic benefits derived from the growth of transnational corporations but also from the underdevelopment of mechanisms for the extraterritorial application of environmental laws. Some developing host states may also lack the necessary technology or sophisticated legal systems to monitor and penalize errant transnational corporations.

Given the increasing prominence and international status of transnational corporations, an urgent need has emerged for a response under international law. This is not only due to the inadequacy of domestic laws and legal fragmentation but also the evolving legal status of transnational corporations within the international legal framework. Although traditionally the subjects of international law should possess the ability to assert international rights, duties, and claims, the current legal landscape sees transnational corporations owning some rights and bearing responsibilities under international law. Denying transnational corporations some form of legal personality at the international level now seems unreasonable. Recognizing the duty-holders of transnational corporations under international law can also compel them to assume greater responsibility on the global stage.

International treaty-based regimes, specifically international civil liability regimes, offer a promising avenue for improvement. These regimes are designed to establish general civil liability frameworks to address transboundary disputes arising from hazardous activities, predominantly carried out by transnational corporations. Existing examples include certain oil pollution and nuclear treaty-based regimes. The further development and strengthening of these international frameworks will be essential in managing the complex environmental challenges posed by transnational corporations in the globalized world.

4.1. The Exploration of Current Treaty-Based Regime

At present, treaty-based regimes for nuclear activities and oil pollution by ships primarily serve two purposes: to facilitate the resolution of cross-border disputes pertaining to relevant issues and to ensure the smooth daily operation of these activities. Several notable treaties have been adopted to this end, such as the Convention on Third Party Liability in the Field of Nuclear Energy, the Vienna Convention on Civil Liability for Nuclear Damage, the Joint Protocol relating to the Vienna Convention, the Paris Convention, and others. There are also specific treaties for cross-border disputes of oil pollution damage, like the International Convention on Civil Liability for Oil Pollution Damage. Additional examples include the Basel Protocol on Liability and Compensation for Damage Resulting from Transboundary Movements of Hazardous Wastes and Their Disposal, the Council of Europe's Convention on Civil Liability for Damage Resulting from Activities Dangerous to the Environment, and the International Law Commission's Draft Principles on the Allocation of Loss.

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Many of these treaties enforce the strict liability principle. For instance, the International Convention on Civil Liability for Oil Pollution Damage holds ship owners strictly liable for potential oil damage. However, they also cap the maximum amount of compensation payable by ship owners to minimize uncertainty over potentially enormous damages. Supplementary funds have been established to further safeguard the interests of affected victims, particularly in the wake of the International Convention on Civil Liability for Oil Pollution Damage. Insurance coverage is often mandated, as seen in the 1993 Council of Europe's Convention on Civil Liability for Damage Resulting from Activities Dangerous to the Environment.

A significant evolution in these treaty-based regimes is the direct imposition of international duties on operators engaged in dangerous or hazardous activities, including transnational corporations. These transnational corporations now face both indirect responsibilities under national laws and direct obligations under international laws. However, the current scope of treaty-based civil liability regimes presents a significant challenge. On one hand, these international agreements are limited to specific environmentally hazardous activities like oil pollution and nuclear incidents, leaving out many heavy industries operated by transnational corporations that may cause substantial environmental harm. On the other hand, the reluctance of nations to ratify these treaties has led to a limited number of effectively ratified agreements, impeding the success of these regimes.

Therefore, it is conducted an analytical study on the record of civil liability treaties. Considering the existing studies [10], and examining data on several such treaties, the current failure of international civil liability agreements is uncovered. The details of findings are as follows:

Table 1: Civil liability treaties that have not entered into force.

Treaty	Required Number of Ratifications	Number of Ratifications	Adoption Year
International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea	12, including 4 States with not less than 2 million unites of gross tonnage	4	2010
UNECE Protocol on Civil Liability and Compensation for Damage Caused by Transboundary Effects of Industrial Accidents on Transboundary Waters	16	1	2003
Basel Protocol on Liability and Compensation for Damage Resulting from Transboundary Movements of Hazardous Wastes	20	12	1999
Council of Europe Lugano Convention on Civil Liability for Damage Resulting from Activities Dangerous to the Environment	3, at least 2 Member States	0	1993
Convention on Civil Liability for Oil Pollution Damage Resulting from the Exploration for and Exploitation of Seabed Mineral Resources	4	1	1977
Convention on the Liability of Operators of Nuclear Ships	Ratified by at least one licensing State and one other State	7	1962

Statistics about civil liability treaties since 1960[11].

From Table 1, an atypical trend emerges: a considerable number of treaties have failed to enter into force. Notable examples include the 2010 International Convention on Liability and Compensation for

ISSN 2616-7433 Vol. 5, Issue 13: 7-14, DOI: 10.25236/FSST.2023.051302

Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea, and the 1993 Council of Europe Lugano Convention on Civil Liability for Damage Resulting From Activities Dangerous to the Environment. Several amending protocols of original conventions also fall into this category.

The primary obstacle facing civil liability treaties appears to be a widespread reluctance among nations to engage in negotiations for these types of agreements, much less ratify them. This has led to a situation where only a handful of treaties have been put into effect. In the meanwhile, the civil liability treaties are mostly relating to matters of oil pollution and nuclear activities. The limitation in scope and the apparent failure to enact treaties in other domains highlight the need for a more comprehensive and cooperative international approach.

4.2. The Improvement of Current Treaty-Based Regime

Governments often show reluctance to participate in and ratify civil liability treaties due to factors such as conflicting interests between different countries, contentious or radical treaty content, and high transaction costs involved in negotiation and enforcement. The common denominator underlying these challenges is a lack of sufficient incentives for countries to fully commit to the process.

4.2.1. Introducing Liability Caps

A fundamental approach to resolving this reluctance lies in enhancing international cooperation. The protection of domestic companies' interests often surfaces as a central concern. Fears of massive environmental compensation payments can deter countries from entering and ratifying civil liability treaties. Therefore, introducing liability caps within such treaties can serve as an effective method to assuage these concerns.

Liability caps work by limiting the exposure of individual companies to substantial environmental compensation claims. The Convention on Civil Liability for Damage Caused During Carriage of Dangerous Goods by Road, Rail and Inland Navigation Vessels (CRTD) serves as an illustrative example. After being adopted by the Inland Transport Committee of the Economic Commission for Europe in 1989 and opening for signature in 1990, it languished for nearly twenty years without entering into force. An inquiry into this delay led to consultations with experts from diverse sectors, including law, insurance, and transportation. The result was a renegotiation that lowered the liability limits by fifty percent in 2003, enhancing acceptance among different countries.

However, determining appropriate liability caps requires careful consideration. If the cap is set too low, such as a mere thousand dollars, it may only satisfy countries with risk-producing companies, and the essence of strict liability could be compromised, rendering civil liability treaties symbolic rather than effective.

4.2.2. Establishing Compensation Funds

The creation of compensation funds offers a layered solution to the challenges of civil liability. These funds are repositories to which companies of risk-producing industries can contribute. They act as a safeguard, ensuring that victims of environmental damage have a source of reparation if the amount of compensation required exceeds the established liability cap.

For instance, the oil pollution compensation fund serves as an example of how these funds can be applied in the context of oil spills, allowing for prompt and efficient compensation to victims. However, the administration and management of these funds require careful consideration to avoid misuse and to ensure they fulfill their intended role.

Moreover, the idea of compensation funds goes beyond mere financial assurance. They can act as a behavioral incentive for companies, encouraging them to maintain environmental standards and minimize risk. By holding companies financially accountable up to the liability limit, a sense of responsibility and deterrence is instilled, which promotes better control over pollution risks.

4.2.3. Enhancing 'Issue Linkage'

The concept of 'issue linkage' refers to the strategic connection of otherwise separate issues to facilitate cooperation in treaty negotiations. It presents a flexible and creative way to bring parties to the negotiation table by aligning different interests.

For instance, a country that is reluctant to commit to strict environmental standards might be more inclined to do so if the treaty also includes favorable trade agreements, political alliances, or technology

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sharing. This method of 'linking' unrelated issues creates a broader framework for negotiation and cooperation, transforming potentially contentious discussions into collaborative problem-solving.

A historical example of this approach can be found in the negotiations leading to the Montreal Protocol, where financial assistance and technology transfer provisions played a significant role in obtaining the commitment of developing countries to phase out ozone-depleting substances. Such an approach acknowledges the interconnected nature of global challenges and allows for more nuanced and inclusive solutions.

By employing 'issue linkage', countries can craft more appealing and holistic agreements that recognize the multifaceted nature of international relations. This can lead to more effective and widely accepted treaties, fostering a cooperative spirit in areas that might otherwise be fraught with conflict and reluctance.

4.2.4. Taking Comprehensive Approaches

Lastly, initiatives beyond traditional civil liability regimes should be explored. While the top-down approach of translating international treaties into domestic laws prevails, a bottom-up approach could also bear fruit. Engaging non-state actors like NGOs, company associations, and even individuals can lead to the creation of norms that can be absorbed into international legal documents.

For example, the Uniform Transboundary Pollution Reciprocal Access Act (UTPRAA) exemplifies this approach. Originating from a joint report by legal associations in Canada and the United States, it provides choice-of-law rules for cross-border disputes, demonstrating how bottom-up lawmaking can work.

In conclusion, these multifaceted strategies, including liability caps, compensation funds, issue linkage, and efforts beyond traditional legal frameworks, offer promising paths to encourage more countries to partake in and ratify relevant civil liability treaties. By bridging the legislative gap between home and host states and enhancing the limited liability principles related to environmental torts of transnational corporations, a more resilient and responsive international legal landscape can be forged.

5. Conclusion

Legal fragmentation is a widespread phenomenon in contemporary legal systems around the world, demanding improvement to foster international cooperation in various legal fields. In the meanwhile, the complex interplay between transnational corporations and the international legal framework presents both challenges and opportunities for environmental protection. The existing national legal systems have shown significant limitations in effectively addressing transnational environmental disputes, highlighting the urgency for an international law response.

The paper has explored current treaty-based regimes and their application to nuclear activities, oil pollution, and other hazardous actions. While certain treaties have been successful in imposing international duties on operators, the scope of application and ratification issues reveals evident shortcomings. A thorough analysis of the uncommon phenomenon of treaties not entering into force has further illuminated the failure of civil liability regimes in fields other than oil pollution and nuclear activities. It underscores the hesitancy of countries to negotiate and ratify such agreements, pointing to a complex array of political, economic, and legal barriers. The paper also delves into potential paths for the further development of treaty-based regimes. Strategies such as implementing liability caps, establishing compensation funds, employing 'issue linkage', and fostering a bottom-up approach offer promising avenues to strengthen international cooperation and acceptance.

The findings and recommendations here are vital for policymakers, legal experts, and international organizations working to safeguard our planet's ecological integrity in an increasingly interconnected world.

Acknowledgement

Fund Project: This research was supported by the Humanities and Social Science Project of the Ministry of Education of China (grant number: 22YJA820020).

ISSN 2616-7433 Vol. 5, Issue 13: 7-14, DOI: 10.25236/FSST.2023.051302

References

[1] Cogan J K, The Idea of Fragmentation [J]. American Society of International Law Proceedings, 2011, 123.
[2] Cohen H G, From Fragmentation to Constitutionalization [J]. Pacific McGeorge Global Business & Development Law Journal, 2012, 385.
[3] Holmes P, The Rhetoric of Legal Fragmentation and Its Discontents - Evolutionary Dilemmas in the Constitutional Semantics of Global Law [J]. Utrecht Law Review, 2011, 113-140.
[4] Fischer-Lescano A, Teubner G, Regime-Collisions: The Vain Search for Legal Unity in the Fragmentation of Global Law [J]. Michigan Journal of International Law, 2004, 1003.
[5] Dean J M, Lovely M E, Wang H, Are foreign investors attracted to weak environmental regulations? Evaluating the evidence from China [J]. Journal of Development Economics, 2009, 1-13.
[6] Jagers N, The Legal Status of the Multinational Corporation under International Law. In Addo M (ed.), Human Rights Standards and the Responsibility of Transnational Corporations [M]. 1999, 262.
[7] Pantazopoulos S-E, Towards a Coherent Framework of Transnational Corporations' Responsibility in International Environmental Law [J]. Yearbook of International Environmental Law, 2014, 144.
[8] Criddle E J, Proportionality in Counterinsurgency: A Relational Theory [J]. Notre Dame Law Review, 2012.
[9] Mankiw N G, Principles of microeconomics (8th ed.) [M]. CENGAGE Learning Custom Publishing, 2016.
[10] Sachs N, Beyond the Liability Wall: Strengthening Tort Remedies in International Environmental Law [J]. UCLA Law Review, 2008, 854-857.
[11] Part information is collected at ECOLEX [OB], https://www.ecolex.org/, accessed on 09/08/2023.