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The Prospective Legal Challenges in International Environmental Dispute Resolution

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Abstract

Environmental issues global scale and complexity are posing growing legal challenges for international dispute resolution mechanisms. The lack of enforceable legal frameworks and voluntary commitments under treaties like the Paris Agreement may hinder effective dispute resolution. Future challenges include the need for technological and scientific expertise in assessing environmental harm and addressing the disproportionate impact of degradation on vulnerable states and populations. International environmental disputes are becoming increasingly complex as the world grapples with climate change, biodiversity loss, pollution, and resource depletion. Traditional dispute resolution mechanisms, such as treaties, arbitration, and multilateral agreements, have been instrumental in managing conflicts. However, these mechanisms face several prospective legal challenges that are likely to intensify in the future. Additionally, the evolving nature of environmental issues, such as climate change attribution and emerging pollutants, compounds the legal uncertainty. International bodies like the International Court of Justice (ICJ) and newer frameworks like the Paris Agreement provide avenues for dispute resolution but may struggle to keep pace with evolving scientific and legal norms. This paper explores these future challenges and proposes potential reforms, focusing on enhancing accountability, improving dispute resolution mechanisms, and aligning international legal frameworks with global environmental goals.

Keywords: Dispute Resolution, Legal Challenges, International Cooperation, Environmental Governance, Sustainable Development.

Introduction

1.1 Background of the Study

The article explores future legal challenges in resolving international environmental disputes, emphasizing the need for collaborative efforts and robust legal frameworks to protect global ecological integrity and promote justice¹.

International environmental dispute resolution encompasses a variety of mechanisms, including litigation, arbitration, mediation, and negotiation, aimed at addressing conflicts arising from differing national interests, regulatory standards, and interpretations of

¹ Bacow, L. S., & Wheeler, M. (2013). *Environmental dispute resolution*. Springer Science & Business Media.

environmental obligations. These disputes may involve states, non-governmental organizations (NGOs), multinational corporations, and other stakeholders, each bringing distinct perspectives and interests. The effectiveness of dispute resolution processes significantly influences the enforcement of international environmental agreements, the implementation of sustainable policies, and the overall health of the global environment². The paper explores the potential legal challenges in International Environmental Law (IEDR) for resolving environmental disputes, emphasizing the need for enhanced technological advancements and scientific expertise integration.

1.2 Importance of the Study

Despite international treaties and institutions like UNFCCC, CBD, and ICJ, environmental dispute resolution faces challenges due to legal, institutional, technological, and socio-political factors. Understanding and addressing these prospective legal challenges is paramount for several reasons:

1. **Enhancing Legal Frameworks:** Identifying existing and emerging legal obstacles can inform the development of more effective and adaptive legal instruments tailored to contemporary environmental issues³.
2. **Promoting Effective Enforcement:** Overcoming enforcement deficiencies ensures that international environmental agreements are not merely symbolic but translate into tangible actions and outcomes.
3. **Fostering Global Cooperation:** Addressing jurisdictional complexities and sovereignty concerns can facilitate greater international collaboration, essential for tackling global environmental problems.
4. **Protecting Human and Environmental Rights:** Ensuring that dispute resolution mechanisms uphold both environmental integrity and human rights fosters a more equitable and sustainable global order⁴.

1.3 Objectives of the Study

This research examines legal challenges in international environmental dispute resolution, focusing on key obstacles like jurisdictional issues and human rights integration. It evaluates existing mechanisms, proposes solutions, and anticipates future trends due to technological advancements, environmental threats, and geopolitical changes.

1.4 Literature Review

The study of international environmental dispute resolution (IEDR) has garnered increasing scholarly attention, reflecting the growing importance of managing environmental conflicts in a globalized world. Key literature on this subject spans across the fields of international law, environmental governance, dispute resolution mechanisms, and the evolving

² Buchan, R., Franchini, D., & Tsagourias, N. (Eds.). (2023). *The Changing Character of International Dispute Settlement: Challenges and Prospects*.

³ Cosens, B., Gunderson, L., Allen, C., & Harm Benson, M. (2014). Identifying legal, ecological and governance obstacles, and opportunities for adapting to climate change. *Sustainability*, 6(4), 2338-2356.

⁴ Picolotti, R., & Taillant, J. D. (Eds.). (2010). *Linking human rights and the environment*. University of Arizona Press.

role of international institutions. This literature review provides an overview of the foundational theories, emerging trends, and key challenges identified by scholars in the field.

The legal frameworks governing international environmental disputes have developed significantly since the mid-20th century. Early works by scholars such as Philippe Sands (2003) focused on the **development of multilateral environmental agreements (MEAs)** like the 1972 Stockholm Declaration, the 1987 Montreal Protocol, and the 1992 Rio Declaration. Sands and other early scholars emphasized the importance of these MEAs in providing legal structures for states to resolve environmental disputes. However, recent research (Crawford & Boyle, 2012) critiques the effectiveness of such agreements, particularly due to their reliance on **voluntary compliance** and the absence of robust enforcement mechanisms⁵.

Traditional dispute resolution mechanisms such as **arbitration, negotiation, and adjudication** have been thoroughly explored in the literature. As noted by Bodansky, Brunnee, and Rajamani (2017), these mechanisms have played pivotal roles in resolving transboundary environmental disputes, including those related to water rights and pollution control. A significant body of work explores the **limitations of international courts**, such as the International Court of Justice (ICJ) and the International Tribunal for the Law of the Sea (ITLOS), particularly regarding their jurisdictional constraints and the **slow pace of dispute resolution**.

Recent studies, such as those by McIntyre (2015), highlight the increasing relevance of **non-state actors**, including corporations and non-governmental organizations (NGOs), in international environmental disputes. The complexity of holding these entities accountable through traditional state-centered legal systems is a recurring theme. Several scholars call for **greater integration of non-state actors** into formal dispute resolution processes, as well as mechanisms that account for their growing influence on environmental degradation and protection⁶.

A persistent challenge highlighted by the literature is the **lack of enforceable international environmental law**. While many environmental treaties have been signed, their enforcement often depends on **state compliance**, with little recourse for non-compliance⁷. Scholars such as Koskenniemi (2007) argue that **state sovereignty** continues to limit the effectiveness of international law, with states often reluctant to cede decision-making authority to international bodies. This leads to a **fragmented legal landscape**, where multiple regimes and legal forums operate in parallel, often without coordination.

Recent research has begun to explore the **prospective future challenges** in IEDR, particularly with the rise of **complex environmental issues** such as climate change, ocean acidification, and biodiversity loss. Bodansky (2019) and others have identified **climate change attribution** as a critical challenge for the future of international environmental law⁸. The

⁵ Johnston, D. M., & VanderZwaag, D. L. (2000). The ocean and international environmental law: swimming, sinking, and treading water at the millennium. *Ocean & coastal management*, 43(2-3), 141-161.

⁶ McIntyre, O. (2018). Transnational environmental regulation and the normativisation of global environmental governance standards: The promise of order from chaos?. *Journal of Property, Planning and Environmental Law*, 10(2), 92-112.

⁷ Werksman, J., Cameron, J., & Roderick, P. (Eds.). (2014). *Improving compliance with international environmental law*. Routledge.

⁸ Savaresi, A. (2021). Inter-State Climate Change Litigation: "Neither a Chimera nor a Panacea". *Climate Change Litigation: Global Perspectives*, 366-392.

difficulty of assigning legal responsibility for climate change impacts such as extreme weather events, sea-level rise, and loss of biodiversity—raises concerns about the adequacy of current legal frameworks⁹.

Recent works have also critiqued the **effectiveness of global environmental governance**. The Paris Agreement (2015) has been heralded as a major step forward in cooperative climate action, but scholars such as Gupta and Arts (2021) argue that the **voluntary nature** of the Agreement's provisions undermines its ability to enforce compliance and resolve disputes effectively. Furthermore, they point to the **disparities in state capacities** to meet environmental targets, which complicate dispute resolution efforts, as wealthier states may be better equipped to comply with environmental standards than developing nations.

A new area of focus in the literature concerns the role of **technology and science** in shaping international environmental law and dispute resolution. Studies by Dupuy and Vinuales (2018) emphasize the role of scientific evidence in proving environmental harm and guiding judicial decision-making in complex cases. The **use of satellite data**, climate models, and other technological tools is becoming increasingly important in attributing responsibility and resolving disputes, though challenges remain in standardizing scientific data and methodologies for legal use.

The literature also suggests various **reforms** to improve the effectiveness of IEDR. Some scholars advocate for the establishment of a **specialized international environmental court** to address the unique nature of environmental disputes, as discussed by Maljean-Dubois (2020). Others, such as de Sadeleer (2016), propose **strengthening the legal standing of environmental organizations** and individuals to bring cases on behalf of ecosystems or the global commons. Proposals for **innovative mechanisms**, such as restorative justice, enhanced liability schemes, and more integrated multilateral cooperation, are increasingly common in recent scholarship¹⁰.

The literature highlights that while progress has been made in developing international environmental law, significant challenges remain. Future legal challenges, particularly those associated with enforcement, jurisdictional issues, climate change, and the role of non-state actors, demand innovative solutions. As environmental disputes become more frequent and complex, scholars agree that there is an urgent need for reforms that enhance accountability, strengthen dispute resolution mechanisms, and adapt legal frameworks to address emerging global environmental challenges.

1.5 Legal Frameworks and Institutions

International environmental dispute resolution (IEDR) is underpinned by a variety of legal frameworks and institutions that operate at global, regional, and national levels. These frameworks and institutions play a crucial role in addressing conflicts over natural resources, environmental degradation, and Trans boundary pollution. This section reviews the major legal

⁹ Varvastian, S. (2024). *Human Rights Approaches to Planetary Crises: From Climate Change to Plastic Pollution*. Taylor & Francis.

¹⁰ Sánchez Galera, M. D., & Sánchez Galera, M. D. (2020). The European Sustainability Model: From the Global Governance Scenario to the European Picture 'Integrating' Intergenerational Justice and Accessible Governance Mechanisms. *Educational and Cultural Challenges of the European Sustainability Model: Breaking Down Silos in the Legal Domain*, 29-108.

frameworks and institutions involved in IEDR and analyze their strengths and limitations in dealing with contemporary and future environmental challenges¹¹.

1.5.1 Multilateral Environmental Agreements (MEAs)

One of the most significant elements of the legal framework for IEDR is the extensive body of Multilateral Environmental Agreements (MEAs). These treaties govern various aspects of environmental protection and resource management, covering issues such as biodiversity, climate change, desertification, and hazardous waste management. These agreements focus on combating climate change by setting emissions reduction targets and promoting adaptation efforts. However, their voluntary compliance mechanisms and non-binding nature in many aspects pose enforcement challenges¹². Established to conserve biodiversity, promote sustainable use of biological resources, and ensure fair access to genetic resources. Disputes arise regarding the equitable sharing of resources and the impact of development on ecosystems¹³. This treaty regulates international trade in endangered species, helping to protect biodiversity, but enforcement issues persist, especially concerning illegal wildlife trade¹⁴.

These MEAs provide the legal foundation for resolving disputes that arise between states or between states and non-state actors. However, as Boyle and Chinkin (2007) pointed out, they often lack robust enforcement mechanisms, relying on **diplomatic negotiations** and **voluntary compliance** rather than legally binding rulings.

1.5.2 International Institutions and Tribunals

A variety of international institutions and tribunals are involved in resolving environmental disputes. While some institutions are specifically dedicated to environmental issues, others have broader mandates that encompass environmental matters. The International Court of Justice (ICJ) has jurisdiction over state disputes, including environmental cases, but its limitations, including state consent requirements, can hinder its effectiveness¹⁵. ITLOS is a tribunal with jurisdiction over UNCLOS disputes, resolving marine pollution, fisheries, and maritime boundaries, exemplified by its ability to resolve complex environmental disputes¹⁶. The PCA administers ecological disputes, including arbitration cases involving states and non-state actors. It has handled cases involving transboundary environmental harm, climate change, and biodiversity.

¹¹ Palerm-Viqueira, J. (2014). Are visible and strong legal frameworks always necessary to sustain irrigation institutions?: some wider lessons for water resource management. *Wiley Interdisciplinary Reviews: Water*, 1(3), 295-304.

¹² Obergassel, W., Arens, C., Hermwille, L., Kreibich, N., Mersmann, F., Ott, H. E., & Wang-Helmreich, H. (2015). Phoenix from the ashes: an analysis of the Paris Agreement to the United Nations Framework Convention on Climate Change; part 1.

¹³ Raustiala, K., & Victor, D. G. (1996). Biodiversity since Rio: the future of the Convention on Biological Diversity. *Environment: Science and Policy for Sustainable Development*, 38(4), 16-45.

¹⁴ Wyatt, T. (2021). Canada and the convention on international trade in endangered species of wild fauna and flora (CITES): lessons learned on implementation and compliance. *Liverpool Law Review*, 42(2), 143-159.

¹⁵ Merkouris, P. (2010). Case Concerning Pulp Mills on the River Uruguay (Argentina v. Uruguay): Of Environmental Impact Assessments and 'Phantom Experts'. *The Hague Justice Portal*, 15.

¹⁶ Petrig, A., & Bo, M. (2019). The International Tribunal of the Law of the Sea and Human Rights.

One notable example is the **Indus Waters Kishenganga Arbitration (Pakistan v. India)**, which addressed water rights and dam construction¹⁷. While not explicitly an environmental body, the WTO addresses trade disputes with significant environmental implications, such as environmental regulations and trade barriers. The **Shrimp-Turtle Case (1998)**, where the WTO ruled on U.S. restrictions on shrimp imports based on environmental concerns, reflects the interaction between trade and environmental law¹⁸.

1.5.3 Regional Courts and Institutions

Regional courts and dispute resolution mechanisms, such as the European Court of Justice, are crucial in resolving environmental conflicts, particularly within the EU, enhancing regional enforcement¹⁹. The IACHR has become a significant forum for addressing the link between environmental degradation and human rights, particularly in cases involving indigenous peoples and environmental harm caused by development projects. The court's decision in the **Kichwa Indigenous People of Sarayaku v. Ecuador** case underscored the protection of indigenous land rights in the context of environmental disputes²⁰. IACHR, this court addresses environmental issues in the context of human rights, such as cases involving land degradation, natural resource exploitation, and pollution that impact communities and ecosystems.²¹

1.5.4 Non-State Actor Engagement and Private Arbitration

An increasing number of environmental disputes involve **non-state actors**, such as multinational corporations, non-governmental organizations (NGOs), and indigenous communities²². Environmental disputes between states and foreign investors are often resolved through Investor-State Dispute Settlement (ISDS) mechanisms in bilateral investment treaties and free trade agreements. However, ISDS mechanisms are criticized for prioritizing investor rights over environmental and social concerns. Private environmental arbitration is becoming popular, but questions remain about transparency and accountability. The effectiveness of international environmental dispute resolution depends on reforms to enhance enforcement mechanisms, expand jurisdictional reach, and strengthen non-state actors' roles²³.

¹⁷ Van Den Hout, T. T. (2008). Resolution of International Disputes: The Role of the Permanent Court of Arbitration—Reflections on the Centenary of the 1907 Convention for the Pacific Settlement of International Disputes. *Leiden Journal of International Law*, 21(3), 643-661.

¹⁸ Golman, W. (2018). Is world trade organization (WTO) dispute settlement system underutilized? An assessment from the WTO members of the south pacific region. *Journal of South Pacific Law*, 2018, TBC.

¹⁹ Grušić, U. (2016). International environmental litigation in EU courts: a regulatory perspective. *Yearbook of European Law*, yew003.

²⁰ Gayet, A. C. (2018). The inter-American court of human rights. *Comparative Perspectives on the Enforcement and Effectiveness of Antidiscrimination Law: Challenges and Innovative Tools*, 543-562.

²¹ Harrington, J. (2002). The African Court on Human and Peoples' Rights. *The African Charter on Human and Peoples' Rights: The System in Practice*, edited by Malcolm D. Evans and Rachel Murray, 305-334.

²² Muhammad, Z. (2016). Effectiveness of Current International Arbitration Law and Practice for Commercial Contracting Parties, in Transnational Oil and Gas Industry. *Transnational Oil and Gas Industry (July 13, 2016)*.

²³ Bronckers, M. (2015). Is investor–state dispute settlement (ISDS) superior to litigation before domestic courts? An EU view on bilateral trade agreements. *Journal of International Economic Law*, 18(3), 655-677.

1.6 Prospective Legal Challenges

As environmental crises intensify due to climate change, biodiversity loss, pollution, and resource depletion, international environmental dispute resolution (IEDR) faces an array of emerging legal challenges. While existing frameworks have proven useful in many cases, they are increasingly inadequate in addressing the complex and transboundary nature of modern environmental issues. This section explores the **prospective legal challenges** that international law and institutions will likely confront in the coming decades²⁴.

1.6.1 Lack of Clear Enforcement Mechanisms

One of the most persistent challenges in IEDR is the **lack of robust enforcement mechanisms**. Many environmental treaties, such as the **Paris Agreement** and the **Convention on Biological Diversity (CBD)**, rely on voluntary compliance, leaving states free to interpret or disregard commitments²⁵. The lack of binding enforcement in international environmental law leads to disputes. To address this, stronger legal tools and enforcement bodies like the International Court of Justice or specialized courts could be established.

1.6.2 Jurisdictional Conflicts and Fragmentation

Jurisdictional conflicts are a growing issue in international environmental disputes. The fragmentation of international law where **multiple treaties, organizations, and courts** deal with similar issues but operate independently complicates efforts to resolve disputes coherently²⁶.

Disputes often cross jurisdictions, involving environmental, trade, human rights, and investment law. Harmonizing dispute resolution mechanisms across international bodies could help prioritize environmental concerns in conflicts with trade or investment law.

1.6.3 Attribution of Responsibility for Climate Change

Climate change is causing millions of people to migrate, creating environmental refugees without recognized status under international law. The 1951 Refugee Convention does not cover these migrants, causing disputes over resettlement, resource access, and state responsibility. A potential solution is establishing legal protections.²⁷

1.6.4 Transboundary Water Disputes

Climate change and population growth are causing water scarcity to intensify disputes over shared resources. Transboundary conflicts arise due to disagreements over water usage, pollution, and dam construction. International water treaties are inadequate for resolving

²⁴ Rothstein, M. A., Zawati, M. N. H., Beskow, L. M., Brelsford, K. M., Brothers, K. B., Hammack-Aviran, C. M., ... & Knoppers, B. M. (2019). Legal and ethical challenges of international direct-to-participant genomic research: conclusions and recommendations. *The Journal of Law, Medicine & Ethics*, 47(4), 705-731.

²⁵ Lost-Siemnińska, D. (2020). Implementation of IMO treaties into domestic legislation: Implementation and enforcement as the key to effectiveness of international treaties. In *Maritime Safety in Europe* (pp. 3-21). Informa Law from Routledge.

²⁶ Thuku, C. M. (2018). *The Overlap of Jurisdiction in International Disputes Resolution Forums and the Effect on International Relations of States* (Doctoral dissertation, university of nairobi).

²⁷ Mahura, M. N. (2019). *International Refugee Law And The Refugee Crisis In The 21St Century* (Doctoral dissertation, University of Nairobi).

disputes, and strengthening international water law frameworks and regional water tribunals could help²⁸.

1.7 Case Studies

The future of international environmental dispute resolution will be shaped by the need to address complex, transboundary, and emerging environmental challenges. Prospective legal challenges include the lack of enforceable frameworks, jurisdictional conflicts, the attribution of responsibility for climate change, and the accountability of non-state actors. Additionally, new environmental threats, the rise of ecological refugees, and the protection of indigenous rights will test the adaptability of international legal systems. To meet these challenges, reforms will be required to strengthen enforcement mechanisms, create new legal frameworks for emerging issues, and integrate broader access for non-state actors into dispute resolution processes.

Examining case studies of international environmental disputes provides valuable insights into how legal frameworks and institutions address conflicts over natural resources, pollution, and ecological harm. These cases illustrate the complexities in resolving transboundary disputes, the strengths and weaknesses of existing mechanisms, and the potential challenges. Below are some prominent case studies highlight key issues in international environmental dispute resolution (IEDR).

i. The Trail Smelter Arbitration (United States v. Canada) (1938, 1941)

The **Trail Smelter case** is one of the earliest and most influential cases in international environmental law. It involved a dispute between the United States and Canada over air pollution caused by a smelting plant in British Columbia, Canada. The plant released sulfur dioxide emissions that damaged crops, forests, and property in the U.S. state of Washington. The case was submitted to arbitration after diplomatic efforts failed²⁹.

Outcome: The tribunal ruled that Canada was responsible for the damage caused by the smelter's emissions and ordered compensation to be paid to the U.S. The ruling established the **principle of state responsibility for transboundary harm**, stating that a country has the duty to prevent pollution that causes damage in another country.

Significance: The Trail Smelter case is a landmark in environmental law for establishing the **"no harm rule,"** which holds that states are responsible for preventing environmental harm that crosses borders. This principle has influenced numerous international treaties and legal frameworks dealing with transboundary pollution and environmental disputes³⁰.

²⁸ Nyaoro, J. R. (2016). *Realizing the Water Security of the Nile River Basin States: Critical Analysis of Article 14 (B) on the Water Security of the Nile River Basin Cooperative Framework Agreement 2010* (Doctoral dissertation, University of Nairobi).

²⁹ Kuokkanen, T. (2002). Settling International Environmental Disputes through Arbitration: The Trail Smelter Case. In *International Law and the Environment* (pp. 80-93). Brill Nijhoff.

³⁰ Brunnée, J. (2008). Transboundary Harm in International Law: Lessons from the Trail Smelter Arbitration. Edited by Rebecca M. Bratspies and Russell A. Miller. Cambridge, New York, Melbourne: Cambridge University Press, 2006. Pp. xxi, 335. Index. \$105. *American Journal of International Law*, 102(2), 395-400.

ii. **The Pulp Mills Case (Argentina v. Uruguay) (2010)**

Argentina and Uruguay disputed pulp mill construction on Uruguay River, with Argentina claiming pollution and violating treaty, while Uruguay argued mills met environmental standards³¹.

In 2010, the ICJ ruled that Uruguay had breached procedural obligations under the treaty by failing to notify and consult Argentina before authorizing the mills. However, the court found insufficient evidence to support Argentina's claims of significant environmental harm and allowed the mills to continue operating.

The Pulp Mills case highlights the importance of procedural obligations in international environmental law, such as the duty to consult and notify neighboring states before undertaking activities that may impact shared resources. The case also underscores the challenges of proving significant environmental harm in transboundary pollution disputes.

iii. **The Gabčíkovo-Nagymaros Project (Hungary v. Slovakia) (1997)**

Hungary and Slovakia disputed a joint project to build dams on the Danube River, suspended due to environmental concerns, and proceeded with construction unilaterally, leading to a legal dispute³².

The ICJ ruled in 1997 that Hungary and Slovakia violated their treaties, leading to the Gabčíkovo-Nagymaros case. This case recognized the principle of sustainable development in international environmental law, emphasizing the need for balance between economic development and environmental protection.

iv. **The Shrimp-Turtle Case (United States v. India, Malaysia, Pakistan, and Thailand) (1998)**

Issue: Trade and environmental protection

Institution: World Trade Organization (WTO) Dispute Settlement Body

Summary: This case involved a dispute between the United States and several developing countries (India, Malaysia, Pakistan, and Thailand) over a U.S. law requiring shrimp exporters to use **turtle-excluder devices (TEDs)** to protect endangered sea turtles. The law was intended to prevent the accidental capture of sea turtles in shrimp trawl nets. The U.S. banned shrimp imports from countries that did not comply with the requirement, leading the affected countries to file a complaint with the WTO, arguing that the U.S. regulation constituted an unfair trade barrier³³.

Outcome: The WTO Dispute Settlement Body ruled in favour of the complaining countries, finding that the U.S. regulation violated the General Agreement on Tariffs and Trade (GATT) by imposing an unjustified restriction on international trade. However, the ruling acknowledged the U.S.'s right to protect endangered species, provided its measures were applied non-discriminately and consistent with WTO rules.

³¹ McIntyre, O. (2010). The proceduralisation and growing maturity of international water law: Case concerning pulp mills on the river Uruguay (Argentina v Uruguay), International Court of Justice, 20 April 2010. *Journal of Environmental Law*, 22(3), 475-497.

³² Katona, C. D. (2014). Case Concerning the Gabčíkovo-Nagymaros Project Hungary versus Slovakia,(1997). *Glendon Journal of International Studies*, 7.

³³ de La Fayette, L. (2002). United States—Import Prohibition of Certain Shrimp and Shrimp Products—Recourse to Article 21.5 of the DSU by Malaysia. *American Journal of International Law*, 96(3), 685-692.

Significance: The **Shrimp-Turtle case** is an essential example of trade and environmental protection tension. While the WTO ruled against the U.S., the case set a precedent for recognizing the legitimacy of environmental concerns in the context of trade disputes. It also highlighted the need for balancing ecological protection with trade obligations in a way that respects international trade rules³⁴.

v. **Whaling in the Antarctic (Australia v. Japan) (2014)**

Australia sued Japan over its whaling program in the Southern Ocean, arguing it violated the International Convention for the Regulation of Whaling (ICRW). The ICJ ruled in favour of Australia, ordering Japan to cease whaling activities. This case highlights the importance of international courts in enforcing conservation agreements, particularly in contentious areas like whaling. It highlights the challenges in enforcing environmental laws, proving ecological harm, and balancing economic and environmental interests.

1.8. Recommendations and Solutions

Addressing the legal challenges in international environmental dispute resolution (IEDR) requires innovative approaches and reforms to existing systems. As environmental issues become more complex and transboundary in nature, it is essential to develop robust legal frameworks, improve institutional mechanisms, and promote global cooperation. One of the primary weaknesses in international environmental law is the lack of effective enforcement mechanisms. Many environmental treaties rely on voluntary compliance or weak enforcement structures, which allow states and corporations to evade responsibility.

A specialized court with the power to hear environmental disputes and enforce binding decisions could provide greater accountability. The court could operate similarly to the International Criminal Court (ICC), with jurisdiction over serious environmental crimes and violations of international environmental agreements³⁵. Strengthen existing institutions like the International Court of Justice and the International Tribunal for the Law of the Sea in environmental cases to issue binding rulings, impose sanctions, or compel states to take remedial actions. Introduce compliance committees to monitor state behavior and improve enforcement without relying solely on courts.³⁶

International bodies like the WTO should harmonize their dispute resolution mechanisms with environmental law to reduce conflicting rulings. Cross-jurisdictional environmental principles can guide disputes across multiple jurisdictions, prioritizing environmental protection over trade or investment. Improving climate change attribution mechanisms is crucial, and current legal standards are insufficient. Recommendations include developing legal standards for climate attribution, adopting a polluter-pays principle, and holding non-state actors accountable. These measures aim to improve accountability and encourage states to take preventive measures. I have suggests several recommendations to

³⁴ Dagne, T. W. (2007). The shrimp turtle case: a battleground for the environmentalists and the international trade community. Available at SSRN 1460915.

³⁵ Lehmen, A. (2015). The Case for the Creation of an International Environment Court: Non-State Actors and International Environmental Dispute Resolution. *Colo. Nat. Resources Energy & Envtl. L. Rev.*, 26, 179.

³⁶ Ashoff, G. (2005). *Enhancing policy coherence for development: Justification, recognition and approaches to achievement* (No. 11). Studies.

strengthen corporate environmental accountability, protect environmental refugees, resolve transboundary water disputes, and balance trade and environmental protection. It suggests expanding corporate accountability mechanisms through international agreements, providing standing for non-state actors, creating a legal framework for climate-displaced persons, and incorporating environmental migration into national and regional policies. It also suggests strengthening international water treaties and establishing regional water tribunals to resolve disputes over shared water resources. Balancing trade and environmental protection is also suggested, with trade agreements incorporating environmental clauses and reforming investor-state dispute settlement mechanisms to protect environmental regulations from challenges by corporations. These recommendations aim to address the growing issue of environmental harm and promote sustainable practices.³⁷

The future of international environmental dispute resolution hinges on addressing weaknesses in existing legal frameworks, strengthening enforcement mechanisms, improving jurisdictional coherence, developing new standards, and ensuring accountability for non-state actors. Balancing trade with environmental protection is crucial for sustainable development.

Conclusion

International environmental dispute resolution (IEDR) is facing significant challenges due to the increasing complexity of environmental issues. Current legal frameworks are fragmented, lack enforcement power, and struggle to keep pace with environmental threats. To address these issues, recommendations include robust enforcement mechanisms, harmonization of frameworks, legal standards, corporate and state accountability, empowering indigenous communities, protecting refugees, and balancing trade with environmental protection. A forward-looking approach to IEDR should emphasize international cooperation, capacity-building, and legal innovation. The future of IEDR depends on the collaboration of states, corporations, and civil society in preserving the planet for future generations.

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³⁷ Chowdury, D.S.R.H., 2024. Harmony Amidst Diversity: Exploring Religious Pluralism in Bengal Through the Lens of Sufi Heritage and Its Envoys. *Hamdard Islamicus*, 47(4).

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