

THE EVOLUTION AND IMPACT OF INTERNATIONAL ENVIRONMENTAL LAW: A JOURNEY TOWARDS A SUSTAINABLE FUTURE

Dr. Shova Devi

*Assistant Professor, Amity Law School, Amity University (Lucknow Campus), U.P., India,
Email: shovadebi34@gmail.com*

Shikha Singh

LL.M. Student, Amity Law School, Amity University (Lucknow Campus), U.P., India

Abstract

International environmental law has evolved considerably and has become a powerful tool for addressing global environmental challenges and promoting sustainability. Treaties such as the Stockholm and Rio Conferences forming the basis for multilateral environmental agreements and facilitating global cooperation to deal with issues such as the trade in endangered species and marine pollution. Customary international law strengthens environmental standards through legal precedents, including standards such as fair use and cross-border impact assessments. Although non-binding, soft legal instruments shape international environmental law by influencing the development and implementation of standards. Declarations such as the Rio Declaration provide the basis for sustainable development and preventive measures. These instruments bridge the gap between theory and practice and facilitate the practical implementation of national responsibility for transboundary damage. The development of international environmental law emphasizes the coordination, effectiveness and compliance of treaties through the approach of treaties. The Framework Convention establishes broad principles, while the Protocol provides specific obligations to ensure specific conservation actions. The influence of international environmental law lies in the promotion of global sustainability efforts through collaboration, shared responsibility and effective policies. The world faces unprecedented environmental challenges, and international environmental law continues to develop and lead us towards a sustainable and resilient future.

Keywords: Multilateral environmental agreements, Sustainable development, Convention-Protocol approach, Global cooperation, Environmental norms, Biodiversity conservation.

Introduction

The year 2022 marked fifty years since the 1972 Stockholm UN Conference on the Human Environment. The Meeting for the first time firmly placed environment at the forefront of the policy concerns of the governments, businesses, civil societies, and other policy makers. It

recognized the intricate and inseparable links between the planet's well-being, our well-being and economic growth. The last hundred years have degraded the environment at an alarming rate unmatched by any century in human history. The world has come to a dangerous precipice from where the next stage conjures up images of a post-apocalyptic world that is uninhabitable for humans and animals alike. This led to an increased sophistication in acknowledging the risks to the earth's environment and the irreversible and unprecedented damage that has been caused by human activity has resulted in a conscious effort, both by governments acting collectively and by non-governmental organization to invoke legal protection of the environment. The resulting agenda is very extensive and includes problems of transboundary air pollution, risks created by reliance upon nuclear power, protection of Antarctica, protection of endangered species of flora and fauna, and the control of the disposal of industrial wastes. The policy issues generated by such an agenda are difficult to resolve because inevitable, the issues do not only concern the environment in isolation but also relate to nations taking onus for their own acts, issues of sovereignty, of right to national development etc.

General international law incorporates various legal categories, including the law of the sea, state responsibility, space law, the legal regime of Antarctica, and non-navigational uses of international watercourses. However, it lacks a specific legal mechanism to effectively address environmental threats.

Early Legal Developments

International environmental law is a comparatively new branch of international law. It has expanded dramatically over the years, particularly since the United Nations Conference on the Human Environment, 1972. The development of international environmental law has produced mixed results. While some treaty regimes have been effective in producing the desired results (e.g., Vienna Convention on Protection of the Ozone Layer, 1985), some other regimes are struggling to produce results (e.g., United Nations Framework Convention on Climate Change, 1992)¹.

The nature and breadth of the earliest environmental legal initiatives were constrained. Legal actions tended to be more specialized, addressing concerns like the control of whaling, fisheries, waterways, and birds (e.g., the Convention between France and Great Britain Relating to Fisheries, 1867, and the Convention between France and Great Britain for the Whaling Regulation of 1931). The 1930s saw the acknowledgment of the transboundary effects of air pollution in arbitration procedures that resulted in the Trail Smelter case's award from the arbitral

¹ Edith Brown Weiss, *Vienna Convention for the Protection of Ozone Layer*, AUDIOVISUAL LIBRARY OF INTERNATIONAL LAW , <https://legal.un.org/avl/ha/vcpol/vcpol.html> (last visited Dec. 23, 2022)

tribunal. In the context of transboundary contamination, the Trail Smelter case (Canada v. US) (1941) established the norm of international law on state liability (and for transboundary effects on environment in general). When the case involves substantial repercussions and the injury is proven by clear and convincing evidence, no state has the right to use or permit the use of its territory in such a way as to cause harm by fumes in or to the territory of another or the properties or people there. Through subsequent case law, such as the Corfu Channel case (UK v. Albania) (1949) ICJ Reports 4², this idea was further developed. Additionally, this principle has been incorporated into a number of treaties and declarations. For instance, the 1982 United Nations Convention on the Law of the Sea's Article 194 and Article 21 of the of United Nations Conference on Human Environment was defined in an international treaty of 1993 as including 'natural resources both abiotic and biotic, such as air, water, soil, fauna and flora and the interaction between the same factors; property which forms part of the cultural' heritage, and the characteristic aspects of the landscape. The 'Trail Smelter case'³ is a defining case because it had a significant impact on how international environmental law later developed. The matter is thought to have been connected to the treaties signed and organizations founded in the late 19th and early 20th centuries providing the foundation for international environmental law.

The question of the need to protect the environment exploded in the late 1960s. Since then, it has increasingly become of crucial importance. At present States, inter- national organizations, and individuals feel that it is imperative to take action to preserve the natural and human environment or at least avert its worsening. Before, the problem was not felt, for three main reasons. First, industrial developments had not spawned pollution and damage to the environment on a very large scale. Second, the States still took a traditional approach to their international dealings: they looked upon them as relations between sovereign entities, each pursuing its self-interest, each eager to take care of its own economic, political, and ideological concerns, each reluctant to interfere with other States management of their space and resources, and unmindful of general or community amenities. Third, public opinion was not yet sensitive to the potential dangers of industrial and military developments to a healthy environment⁴.

Nevertheless, there was an important novelty: for the first time an international tribunal propounded the principle that a State may not use, or allow its nationals to use, its own territory in such a manner as to cause injury to a neighboring country's environment.

² UK v. Albania, (1949) ICJ Reports 4

³ Reports on International Arbitral Award, *Trail Smelter Case (United States, Canada)*, https://legal.un.org/riaa/cases/vol_III/1905-1982.pdf (as on 23-12-2022)

⁴ E.W. Chu & J.R. Karr, *Environmental Impact: Concept, Consequences and Measurement*, National Library of Medicine, (Dec. 24, 2022), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7157458/>

3. Sources of International Environmental Law

Treaties are the most frequently used source of international environmental law. The last few decades, particularly the 1980s and the 1990s, have witnessed a proliferation of multilateral environmental agreements (MEAs)⁵. Between the Stockholm Conference, 1972 and the Rio Conference, 1992, several treaties were concluded covering a range of issues such as regulation of trade in endangered species (Convention on International Trade in Endangered Species of Wild Fauna and Flora, 1973 (CITES)), marine pollution (International Convention for the Prevention of Pollution from Ships, 1973), ozone protection (Vienna Convention on Protection of the Ozone Layer, 1985) and transboundary movement of hazardous waste (Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, 1989). More than 100 MEAs were concluded between 1972 and 1992. Environmental catastrophes such as the Amoco Cadiz oil spill (1978), the Chernobyl nuclear accident (1986) and the Exxon Valdez oil spill (1989) also triggered the rapid development of international environmental law⁶. The number of MEAs has grown significantly and they are mainly ambiguous in nature therefore now the focus has shifted towards stronger emphasis on treaty coordination, effectiveness, and compliance as opposed to the adoption of new treaties. The treaty making process in international environmental law has also witnessed the introduction of novel ideas, most importantly, the Convention-Protocol approach, which envisages a framework convention with broad principles. Concrete obligations and actions will be laid down in subsequent agreements known as protocols. The 1992 Convention on Biological Diversity, for instance, lays out general guidelines for the protection of biodiversity⁷. However, in later conventions on various topics, such as biosafety, specific rights and obligations have been established. benefit sharing (Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization, 2010) and biosafety (Cartagena Protocol on Biosafety, 2000). Another example is the system in place to address climate change, which was established by the 1992 United Nations Framework Convention on Climate Change and the 1997 Kyoto Protocol, which established specific rights and obligations.

Another significant source of international environmental law is custom. As was the case with the United Nations Convention on the Non-Navigational Uses of Intellectual Property, customary international law standards have the essential benefit of assisting in the formulation of treaties or

⁵Mr. Sujhith Koonan, *Introduction to International Environmental Law*, EpG Pathshala, https://epgp.inflibnet.ac.in/epgpdata/uploads/epgp_content/law/06._environmental_law/01._introduction_to_international_environmental_law/et/5721_et_01_et.pdf

⁶ *Id.*

⁷ *The Convention on Biological Diversity*, Convention on Biological Diversity, (Dec. 22, 2023), <https://www.cbd.int/gbo1/chap-02.shtml>

being codified into a treaty. In the *Gabcikovo-Nagymaros case (Hungary v. Slovakia)*⁸, for instance, the International Court of Justice recognize the idea of fair and equitable utilization as a customary standard in the context of the use and conservation of international watercourses. The International Court of Justice has issued a ruling in the *Pulp Mills case (Argentina v. Uruguay)*⁹, where it recognized the transboundary impact assessment as a requirement of customary international law. Nevertheless, identifying global customary standards is a difficult undertaking. It is difficult to determine the two crucial elements of international custom, state practice and *opinio juris*, because environmental challenges are constantly changing. The latter indicates the actual practice, States come next; the latter indicates if the states have seen it as part of their legal obligation to adhere to such practice. It is very challenging to determine the state practice of more than 190 nations. Additionally, it is unclear how to identify these components. The modern approach mainly focuses on texts like declarations or the activity of international organizations, but the traditional approach contends that real state practice should be given more weight.

International environmental law has developed significantly with the help of non-binding agreements. Even though they are not legally "law," soft law has had a big impact on international environmental law. The most significant developments that have shaped society are listed first. Non-binding agreements like the Rio Declaration of 1992 and the Stockholm Declaration of 1972 have led to international environmental legislation. Second, soft law tools have been crucial in putting some of the fundamental tenets of international environmental law, such state liability for transboundary harm, into practice. Thirdly, soft laws serve as a foundation for the creation of hard law. The creation of legally binding treaties has benefited greatly from a few environmental soft law tools. For instance, the Helsinki Rules on the Uses of the Waters of International Rivers, 1966 adopted by the International Law Association formed the basis of a treaty subsequently adopted on international watercourses - the UN Convention on the Non-Navigational Uses of International Watercourses, 1997¹⁰.

Important Environmental Conferences

⁸ (1997) ICJ Reports 7

⁹ (2010)(ICJ Reports 14)

¹⁰ *Draft articles on the law of the non-navigational uses of international watercourses and commentaries thereto and resolution on transboundary confined groundwater*, (Dec. 25, 2022) https://legal.un.org/ilc/texts/instruments/english/commentaries/8_3_1994.pdf

The important conferences that led to the development of international environmental law, must begin with the Stockholm Conference 1972.¹¹ Based on scientific evidence of environmental degradation, environmentalism first gained traction in the early 1960s. The realization that national policies alone are insufficient to protect the environment resulted from this. The world community was under pressure to develop a plan for the protection of the earth's atmosphere. In response to this pressure, the United Nations organized the United Nations Conference on the Human Environment in 1972 that is popularly known as the Stockholm Conference. A non-binding Stockholm Declaration and an action plan with suggestions were the outcomes of the Stockholm Conference. Among the crucial clauses in this regard are those which are in accordance with Principles 11 (implicit sustainable development), 21 (state responsibility for transboundary harm), 22 and 24 (liability rules). As a result of the Stockholm Conference, the United Nations Environment Program (UNEP) was established in 1972. It played a crucial role in the development of international environmental law and was the first entity within the UN system to have environmental protection as its primary responsibility¹².

World Charter for Nature: The World Charter for Nature is a document that was adopted by the United Nations General Assembly in 1982. Its purpose is to provide a set of non-binding guidelines for governments and societies regarding the conservation and sustainable use of natural resources. The charter emphasizes the importance of protecting the environment and promoting responsible behavior towards nature. One of the key principles outlined in the charter is the preservation of nature itself. It recognizes that nature should be protected and preserved in its own right, acknowledging the intrinsic value of the natural world. The charter emphasizes the need to maintain ecological processes and essential ecosystems, recognizing their importance for the overall health and functioning of the planet¹³.

Another important principle of the charter is the conservation of biodiversity. It highlights the significance of preserving biological diversity, including species, ecosystems, and genetic resources. The charter encourages the identification and protection of critical habitats and emphasizes the importance of preventing species extinction. It recognizes that the diversity of life on Earth is essential for ecological stability and resilience.

The charter also promotes the concept of sustainable use of natural resources. It calls for the responsible management and utilization of resources to ensure that the needs of the present

¹¹ United Nations Conference on the Human Environment, 5-16 June 1972, Stockholm, (Dec. 25, 2022) <https://www.un.org/en/conferences/environment/stockholm1972>

¹² *Id.*

¹³UN General Assembly, World Charter for Nature., 28 October 1982, A/RES/37/7, available at: <https://www.refworld.org/docid/3b00f22a10.html> (Dec. 26, 2022)

generation are met without compromising the ability of future generations to meet their own needs. The charter encourages the development of sustainable practices in various sectors such as agriculture, forestry, fisheries, and others, aiming to balance human needs with environmental protection. Maintaining ecosystem integrity is another key principle of the charter. It emphasizes the importance of preserving the integrity of ecosystems, including protecting their natural and productive capacities. The charter calls for the restoration of ecosystems that have been damaged and the prevention of pollution and degradation. By safeguarding ecosystem health, the charter recognizes the crucial role those intact ecosystems play in supporting biodiversity, regulating climate, and providing various ecosystem services.

The World Charter for Nature also includes the precautionary principle, which highlights the need to take precautionary measures in the face of potential environmental harm. It encourages decision-makers to consider the potential consequences of their actions and prioritize prevention, especially in situations where scientific uncertainty exists. This principle emphasizes the importance of avoiding irreversible damage to the environment and promoting responsible decision-making. Furthermore, the charter emphasizes the importance of international cooperation in addressing environmental challenges. It recognizes that environmental issues transcend national boundaries and require collaborative efforts. The charter encourages nations to work together to develop international agreements and mechanisms for nature conservation. This cooperative approach is crucial for effectively addressing global environmental issues and promoting sustainable development on a global scale. While the World Charter for Nature is not legally binding, it provides a framework for governments, organizations, and individuals to promote sustainable development and responsible environmental stewardship. It has influenced the development of environmental laws and policies worldwide and has served as a guiding document in various international environmental initiatives. By adhering to the principles outlined in the charter, societies can work towards a more sustainable and harmonious relationship with the natural world¹⁴.

Brudtland Report: The Brundtland Report, also referred to as "Our Common Future," was a groundbreaking publication issued by the World Commission on Environment and Development in 1987. Led by Gro Harlem Brundtland, the report introduced the concept of sustainable development, emphasizing the necessity of meeting present societal needs while safeguarding the ability of future generations to fulfill their own needs. It underscored the interdependence of

¹⁴*Mapping Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment* <https://www.ohchr.org/sites/default/files/Documents/Issues/Environment/Mappingreport/10.Non-binding-environmental-instruments-5Mar.docx> (Dec. 27, 2022)

environmental, social, and economic factors, stressing the significance of an integrated approach to development. Equity emerged as a key theme, acknowledging the disparities in wealth and resource allocation, and advocating for fair and equitable distribution of benefits¹⁵. The report also called for living within environmental limits, advocating for the preservation of ecosystems, biodiversity, and the reduction of pollution. Furthermore, it highlighted the importance of participatory governance, encouraging inclusive decision-making and democratic processes. The Brundtland Report has had a profound influence on global sustainability discussions, shaping subsequent international agreements and initiatives. As an essential point of reference, it continues to guide policymakers, organizations, and individuals in their pursuit of a sustainable and equitable future¹⁶.

The Earth summit 1992: The Earth Summit, officially known as the United Nations Conference on Environment and Development (UNCED), was held in Rio de Janeiro, Brazil, in 1992. The summit was a historic event that brought together leaders from around the world to address pressing environmental and developmental challenges. Its primary goal was to promote sustainable development and find ways to reconcile economic growth with environmental protection. During the Earth Summit, several significant outcomes were achieved. The Rio Declaration on Environment and Development was adopted, which outlined key principles for sustainable development and emphasized the need for global cooperation. The summit also led to the creation of the Convention on Biological Diversity, aiming to conserve biodiversity and promote its sustainable use¹⁷.

Another notable outcome was the adoption of Agenda 21, a comprehensive action plan for sustainable development in the 21st century. Agenda 21 covered various sectors, including poverty eradication, health, education, and sustainable management of resources. It called for the active participation of governments, organizations, and individuals in implementing sustainable practices.

The Earth Summit also placed a spotlight on the issue of climate change, leading to the establishment of the United Nations Framework Convention on Climate Change (UNFCCC). The UNFCCC aimed to stabilize greenhouse gas concentrations in the atmosphere and mitigate the impacts of climate change. The Earth Summit in 1992 marked a turning point in global environmental governance. It brought sustainable development to the forefront of international

¹⁵ *Global sustainable Development Report*, 2019
https://sustainabledevelopment.un.org/content/documents/24797GSDR_report_2019.pdf (Dec. 27, 2022)

¹⁶ *Our Common future Brundtland Report*, <https://www.are.admin.ch/are/en/home/media/publications/sustainable-development/brundtland-report.html> (Dec. 28, 2022)

¹⁷ *United Nations Earth Summit +5*, <https://www.un.org/esa/earthsummit/> (Dec.28, 2022)

discussions and resulted in significant agreements and frameworks to address environmental challenges. The summit's outcomes continue to influence global policies and actions towards achieving a more sustainable and resilient future¹⁸.

Agenda 21 and Earth Summit +5: Agenda 21 is a comprehensive action plan adopted at the United Nations Conference on Environment and Development (UNCED), also known as the Earth Summit, held in Rio de Janeiro in 1992. It provided a blueprint for sustainable development in the 21st century. The Earth Summit +5, a follow-up conference held in 1997, reviewed the progress made since the Earth Summit and examined the implementation of Agenda 21.

Agenda 21 addressed various interconnected issues related to sustainable development, including poverty, environmental degradation, and resource management. It emphasized the need for international cooperation, the involvement of stakeholders, and the integration of economic, social, and environmental considerations in decision-making processes.

The Earth Summit +5 aimed to assess the achievements and challenges in implementing Agenda 21. It reviewed the progress made by countries and identified areas where further action was required. The conference focused on key issues such as climate change, biodiversity conservation, and poverty alleviation.

These initiatives played a crucial role in raising awareness about sustainable development and promoting global cooperation. They paved the way for subsequent international agreements and frameworks, including the adoption of the Sustainable Development Goals (SDGs) in 2015.

The Earth Summit and Agenda 21 have had a lasting impact on global sustainable development efforts. They have influenced policy-making, guided national strategies, and fostered partnerships between governments, civil society, and the private sector. By addressing the interrelated challenges of environmental protection, social equity, and economic development, these initiatives continue to shape our collective efforts towards a more sustainable future¹⁹.

Rio +20: Rio+20, officially known as the United Nations Conference on Sustainable Development, was held in Rio de Janeiro, Brazil, in 2012, marking the 20th anniversary of the original Earth Summit. The conference aimed to secure renewed political commitment for sustainable development, assess progress made since the Earth Summit, and address emerging challenges.

¹⁸ *United Nations Framework Convention on Climate Change*, <https://unfccc.int/process-and-meetings/what-is-the-united-nations-framework-convention-on-climate-change> (Dec. 30, 2022)

¹⁹ *Agenda 21*, <https://sustainabledevelopment.un.org/outcomedocuments/agenda21> (Jan. 2, 2023)

Rio+20 focused on two main themes: the green economy and the institutional framework for sustainable development. The concept of a green economy aimed to promote sustainable development through policies that fostered resource efficiency, reduced environmental impacts, and promoted social inclusion. The conference discussed ways to integrate environmental and social considerations into economic decision-making processes.

Additionally, Rio+20 aimed to strengthen the institutional framework for sustainable development, recognizing the need for improved governance structures at the national and international levels. Discussions revolved around enhancing the United Nations' role in sustainable development, including the potential establishment of a Sustainable Development Council.

The conference resulted in the adoption of the outcome document entitled "The Future We Want." While it did not introduce binding commitments, it reaffirmed the importance of sustainable development and outlined a set of goals and principles to guide future actions. These included the promotion of sustainable consumption and production, the protection of ecosystems, poverty eradication, and the importance of involving all stakeholders in decision-making processes.

Rio+20 provided a platform for countries, organizations, and civil society to exchange ideas, share best practices, and strengthen partnerships for sustainable development. The conference underscored the urgency of addressing environmental and social challenges while promoting economic prosperity. Its outcomes contributed to the subsequent development of the Sustainable Development Goals (SDGs) and the 2030 Agenda for Sustainable Development.

Rio+20 served as a milestone in the global pursuit of sustainable development, highlighting the need for collective action and long-term commitment. It emphasized the importance of integrating economic, social, and environmental dimensions and spurred ongoing efforts to create a more sustainable and equitable future²⁰.

Paris Agreement, 2015: The Paris Agreement, adopted in 2015 under the United Nations Framework Convention on Climate Change (UNFCCC), is a historic international treaty aimed at combating climate change. Its central objective is to limit the global temperature increase to well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to keep it below 1.5 degrees Celsius. The agreement recognizes the urgent need for global cooperation to address the threats posed by climate change²¹.

²⁰ *The Journal of Field Action Field Action Science Reports*, <https://journals.openedition.org/factsreports/1337> (Jan. 2, 2023)

²¹ *The Paris Agreement*, <https://unfccc.int/process-and-meetings/the-paris-agreement> (Jan. 2, 2023)

One of the key features of the Paris Agreement is the concept of Nationally Determined Contributions (NDCs). Each participating country is required to submit its own voluntary climate action plan, outlining the actions and targets they will undertake to mitigate greenhouse gas emissions and adapt to the impacts of climate change. NDCs serve as the foundation for countries' climate strategies and highlight their commitment to taking action.

The agreement also establishes a robust transparency and accountability framework. Countries are required to regularly report on their progress in implementing their NDCs, and a global stock take is conducted every five years to assess collective progress towards the agreement's goals. This review process promotes transparency, comparability, and encourages countries to continuously enhance their climate efforts²².

Another significant aspect of the Paris Agreement is the commitment to providing financial support to developing countries. Developed nations pledged to mobilize climate finance to support the mitigation and adaptation efforts of developing countries. The agreement aims to achieve a balance between adaptation and mitigation, recognizing the particular vulnerabilities and needs of developing nations.

The Paris Agreement has garnered widespread international participation, with almost all countries in the world becoming signatories. It represents a global consensus on the urgency of addressing climate change and provides a framework for international collaboration. The agreement has encouraged countries to ramp up their efforts to transition to low-carbon and climate-resilient economies, driving innovation and investment in renewable energy, energy efficiency, and sustainable practices.

Since its adoption, the Paris Agreement has influenced global climate action and catalyzed increased ambition. It has served as a foundation for subsequent climate negotiations and agreements, including the Katowice Rulebook adopted in 2018, which provides guidelines for implementing the agreement. The Paris Agreement stands as a critical instrument in the collective response to climate change, fostering collaboration, and driving the transition towards a more sustainable and resilient future for all.

United Nations Convention on Biological Diversity, 1992: The United Nations Convention on Biological Diversity (CBD) is an international treaty that aims to promote the conservation and sustainable use of biological diversity and ensure the fair and equitable sharing of its benefits. It

²² *Global Stocktake*, <https://unfccc.int/topics/global-stocktake> (Jan. 2, 2023)

was opened for signature at the Earth Summit in Rio de Janeiro in 1992 and entered into force in 1993.

The CBD recognizes the intrinsic value of biodiversity and its importance for ecosystems, species, and human well-being. It sets forth three main objectives: the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of benefits arising from genetic resources.

To achieve these objectives, the CBD encourages countries to develop national strategies and action plans for biodiversity conservation. It emphasizes the need for protected areas, the conservation of habitats, and the restoration of degraded ecosystems. The CBD also promotes sustainable practices in sectors such as agriculture, forestry, fisheries, and tourism, taking into account the conservation and sustainable use of biodiversity.

An important aspect of the CBD is the recognition of the rights of indigenous peoples and local communities in relation to their traditional knowledge and practices. The agreement highlights the need to respect, preserve, and maintain their knowledge, innovations, and practices relevant to biodiversity conservation.

The CBD established a framework for international cooperation, encouraging countries to work together in implementing biodiversity conservation measures. It promotes the exchange of scientific and technical information, capacity-building, and the transfer of technology. The CBD also addresses the issue of access to genetic resources and the sharing of benefits derived from their utilization, emphasizing the importance of fairness and equity.

Since its inception, the CBD has played a crucial role in raising awareness about the value of biodiversity and the need for its conservation. It has catalyzed the development of national biodiversity strategies, the establishment of protected areas, and the integration of biodiversity considerations into various sectors. The CBD has also facilitated the negotiation of other important agreements, such as the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization.

The CBD continues to be a significant framework for international efforts to address biodiversity loss, habitat degradation, and the unsustainable use of natural resources. It provides a platform for collaboration, knowledge sharing, and the development of policies and measures that safeguard biodiversity and contribute to the sustainable development of nations²³.

²³ *Convention on Biological Diversity*, <https://www.un.org/en/observances/biological-diversity-day/convention> (Jan. 2, 2023)

Johannesburg Declaration on Sustainable Development: The Johannesburg Declaration on Sustainable Development, adopted at the World Summit on Sustainable Development in 2002, was a significant outcome document that reaffirmed the global commitment to sustainable development. The declaration built upon the principles and objectives outlined in the United Nations Millennium Declaration and aimed to address new challenges and accelerate action towards sustainable development²⁴.

The declaration emphasized the need to integrate economic, social, and environmental dimensions in decision-making processes and policies. It recognized poverty eradication as a central goal and stressed the importance of achieving sustainable patterns of consumption and production. The document also highlighted the role of education, science, and technology in driving sustainable development.

One key aspect of the Johannesburg Declaration was the emphasis on partnerships and the involvement of multiple stakeholders in sustainable development efforts. It called for enhanced cooperation between governments, civil society, the private sector, and international organizations to foster inclusive and participatory approaches.

The declaration also addressed critical issues such as water and sanitation, energy, biodiversity, and the sustainable management of natural resources. It acknowledged the urgency of addressing climate change and the need for concerted global action.

The Johannesburg Declaration provided a renewed impetus for sustainable development efforts globally. It underscored the importance of integrated approaches, partnership building, and the need to address the social, economic, and environmental dimensions of sustainable development in a holistic manner. The document served as a reference point for subsequent discussions and initiatives aimed at advancing sustainable development at national, regional, and global levels²⁵.

General Principles of International Environmental Law

State practice and case law show that only a few general principles have evolved. The first and more general one is that enjoining every State not to allow its territory to be used in such a way as to damage the environment of other States or of areas beyond the limits of national jurisdiction. This principle was first set out by the Arbitral Court in the Trail Smelter case. It is substantially based on an even more general obligation, enunciated in 1949 by the ICJ in the Corfu Channel

²⁴ *Johannesburg Declaration on Sustainable Development*, https://www.un.org/esa/sustdev/documents/WSSD_POI_PD/English/POI_PD.htm (Jan. 3, 2023)

²⁵ *Statement on the Outcome of the World Summit on Sustainable Development* (Johannesburg 26 August – September 2002) <https://www.socialistinternational.org/councils/rome-2003/statement-on-the-outcome-of-the-world-summit-on-sustainable-development-johannesburg-26-august-4-september-2002/> (Jan. 4, 2023)

case. "It was subsequently proclaimed, among other things, in Principle 21 of the 1972 Stockholm UN Declaration on the Human Environment. It was also restated in two decisions of 1979 and 1983, of the Rotterdam Tribunal in the case, *Handelskwekerij G.-J. Bier and B.V. Stichting Reinwater v. Mines de Potasse d'Alsace S.A.*²⁶. In its generally accepted purport, this principle is not State. sovereignty oriented. In other words, it is intended to protect not only the environment of each other State, as an asset belonging to it, but also the environment as a common amenity. This is among other things borne out by the dictum of the ICJ in *Legality of the Threat or Use of Nuclear weapons* whereby: Environment is not an abstraction but represents the living space, the quality of life and the very health of human beings, including generations unborn: The existence of the general obligation of States to ensure that activities within their jurisdiction and control respect the environment of other States or of areas beyond national control is now part of the corpus of international law relating to the environment. The ICJ came back to this principle where it stated the importance it attached to 'respect for the environment' not only for the states but also for the whole mankind in *Gabcikovo Nagymaros Project case*²⁷.

Another general principle, attested to by the general and increasing concern of States about the environment and borne out by the great number of treaties concluded in this area, is that imposing upon States the obligation to co-operate for the protection of the environment. This principle had already been alluded to in the decision in *Trail Smelter*, and was restated in Principle 24 of the 1972 Stockholm Declaration. It is much looser than the previous one but already reflects a new approach to environmental issues, based on the assumption that the environment is a matter of general concern. It follows from this principle that every State must cooperate for the protection of this precious asset, regardless of where the environment has been or may be harmed. Of course, given its looseness, this principle can only be applied jointly with the customary rule on good faith: every State must in good faith endeavor to co-operate with other States with a view to protecting the environment. A blunt refusal to co-operate, unaccompanied by a statement of the reasons for such an attitude would amount to a breach of the principle

- **Precautionary Principle:**

The practice of States has resulted in some emerging legal principles. Probably the best known of these is the Precautionary principles that received clear support in the 1992 Rio Declaration on Environment and Development. Principle 15.²⁸ In order to protect the environment, the

²⁶ Patricia Birnie, *The Development of International Environmental Law*, <https://www.jstor.org/stable/20096800> (Jan. 5, 2023)

²⁷ *Gabcikovo Nagymaros Project case*, <https://www.icj-cij.org/case/92>, (Jan. 5, 2023)

²⁸ *The ten Principles of the UN Global Compact* <https://www.unglobalcompact.org/what-is-gc/mission/principles/principle->

concrete meaning and purpose. The concept of Inter-generational equity is a form which falls within the penumbra of sustainable development and underlies several global environmental treaties.³⁰ However, this element has no clear legal status and lies outside the sphere of environmental concerns as such.

Pioneering Judicial Precedents: International Environmental Law Principles in Indian Jurisprudence

India has emerged as a trailblazer in incorporating international environmental law principles into its domestic legal framework through the establishment of pioneering judicial precedents. Over the years, Indian courts have demonstrated a proactive approach in interpreting and applying these principles, thereby playing a crucial role in shaping the country's environmental jurisprudence.

In *Vellore Citizens Welfare Forum v. Union of India*, The Supreme Court embarked upon an elaborate elucidation of the Fundamental Rights, Directive Principles, and Fundamental Duties enshrined within the fabric of the Indian Constitution, carefully underscoring their intricate interplay. Furthermore, the Court invoked the concept of Sustainable Development and drew upon the principles espoused in the Stockholm Declaration to imbue the notion of environmental safeguarding with its true essence. With unwavering conviction, the Court unambiguously proclaimed that the precautionary principle and the polluter pays principle constitute an inseparable part of the legal fabric of the nation, as affirmed by the constitutional and statutory provisions at hand³¹.

In the case of *A. P. Pollution Control Board v. M.V. Nayudu*, the Supreme Court once again invoked the Precautionary Principle, tracing its evolutionary path towards the Principle of Assimilative Capacity. In rendering its judgment, the Court extensively referred to a multitude of international articles and scholarly papers, meticulously contextualizing the principle within the realm of Indian environmental jurisprudence. The Court astutely observed a paradigmatic shift in the approach to environmental protection, transpiring between the years 1972 and 1982. Prior to this epochal transition, the prevailing conceptual framework rested upon the "assimilative capacity" rule, as enunciated in Principle 6 of the Stockholm Declaration during the momentous U.N. Conference on Human Environment in 1972. This principle operated under the presumption that scientific knowledge would equip policymakers with indispensable insights and tools to avert transgressions upon the environment's capacity to assimilate adverse impacts. Moreover, it

³⁰*Intergenerational Equity*, <https://leap.unep.org/knowledge/glossary/intergenerational-equity> (Jan. 10, 2023)

³¹ AIR 1996 SC 2715

presupposed the ready availability of pertinent technical expertise for predicting environmental harm, while affording ample time for proactive interventions to forestall such harm³².

In the case of *M.C. Mehta v. Union of India*, the Supreme Court expressed the viewpoint that "The extent of compensation to be borne by an enterprise for the damages resulting from an accident during the pursuit of hazardous or inherently dangerous activities should correspondingly increase with the scale and prosperity of the enterprise." However, this stance taken by the Court faced criticism from certain quarters. It was argued that this statement showcased a misunderstanding regarding the multifaceted role of the industry, reducing it merely to an exploitative entity, and failing to acknowledge its substantial contributions to the economy. Critics contended that the Court seemed fixated on the negative aspects, overlooking the positive aspects and contributions made by industries³³.

However, the Supreme Court, in the case of *Union Carbide Corporation v. Union of India*, made a notable remark. The Court asserted, "The critique of the Mehta principle seemingly overlooks the evolving principle of tortious liability, which inherently focuses on the societal limitations imposed on economic ventures. There exist certain acts that a civilized society cannot simply condone, regardless of whether compensatory measures are provided for the resulting losses suffered by individuals³⁴."

In the case of *Deepak Nitrite Ltd v. State of Gujarat*, the Supreme Court demonstrated a judicious approach that reflected its utmost sensitivity towards environmental concerns and the principle of polluter liability for addressing pollution. The Court exercised caution and prudence when imposing penalties on polluting entities. It astutely observed that before compensation and restoration costs can be imposed, a meticulous determination must be made to establish a direct correlation between a specific industry and the pollution it causes. By emphasizing the need for a thorough assessment, the Court underscored its commitment to ensuring a fair and rigorous examination of the nexus between industrial activities and environmental degradation, thus upholding the principles of environmental justice and accountability³⁵.

In *State of Andhra Pradesh v. Raghu Rama Krishna Raju Kanumuru (MP)*, SC held that Achieving a harmonious equilibrium between development and environmental concerns is of paramount importance. While development is crucial for the economic progress of a nation, it is equally imperative to protect and safeguard the environment, ensuring a pollution-free ecosystem

³² 2001 (2) SCC 62

³³ AIR 1987 SC 1086

³⁴ AIR 1990 SC 273

³⁵ AIR 2004 SC 3407

for the well-being of future generations. By recognizing the significance of sustainable development, we can endeavor to strike a balance that allows for progress while preserving the integrity of our natural surroundings. This approach not only safeguards the environment but also nurtures a healthy and thriving ecology that can be inherited by future generations³⁶.

In *T.N. Godavarman Thirumulpad v. Union of India*, SC held that adhering to the principle of sustainable development is not just a choice but a constitutional mandate. The Precautionary Principle is an indispensable component of the broader concept of sustainable development. In situations where doubt arises, the protection of the environment takes precedence over economic interests. The Precautionary Principle necessitates proactive measures to be taken in anticipation of potential harm, even if there is a reasonable suspicion of such harm occurring. It emphasizes the need for preventive action to avert environmental damage and reinforces the idea that harm can be mitigated or prevented through timely and cautious intervention³⁷.

In Re TN Godavarman Thirumulpad v. Union of India, SC held that the Public Trust Doctrine is an integral part of the legal framework governing our land. The State's role extends beyond being a mere facilitator or promoter of economic activities aimed at immediate prosperity. It also carries the responsibility of acting as a trustee, safeguarding the interests of the general public concerning natural resources, thus ensuring sustainable development in the long run. In the present context, the State's role as a trustee becomes even more crucial, given the imminent threat of climate catastrophe caused by the looming specter of global warming. This emphasizes the heightened significance of the State's duty to protect and preserve the environment for the well-being of current and future generations³⁸.

In re: Compliance of Municipal Solid Waste Management Rules, 2016 and other environmental issues, Bihar was ordered to pay a compensation of Rs. 4,000 crore as per the "polluter pays" principle for its failure to scientifically manage liquid and solid waste. The NGT found the state in violation of the mandate of law, Supreme Court judgments, and NGT guidelines. The compensation was imposed as a consequence of the significant gap in sewage management, the existence of legacy waste, and the unprocessed urban waste generated daily³⁹.

In *Bajri Lease LoI Holders Welfare Society vs State of Rajasthan*, addressing illegal sand mining in the State of Rajasthan, the Supreme Court made significant observations regarding the compensation or penalty to be imposed on those involved in such activities. The court emphasized

³⁶ AIR 2022 SC 2850

³⁷ (2022) 9 SCC 306

³⁸ 2022 (9) SCALE 254

³⁹

<https://www.livelaw.in/top-stories/ngt-bihar-compensation-waste-management-violations-228101?infinitemscroll=1>

that the compensation should not be restricted solely to the value of the illegally-mined mineral but must also include the cost of restoring the environment and ecological services. This landmark decision was rendered by a bench comprising Justices L. Nageswara Rao, Sanjiv Khanna, and BR Gavai⁴⁰.

Acknowledging the extensive scale of illegal sand mining in Rajasthan, the Supreme Court directed the Central Empowered Committee (CEC) to submit a detailed report on the various problems faced by stakeholders, including traders, consumers, transporters, and the State. In response, the CEC's report recommended an exemplary penalty of Rs. 10 lakh per vehicle and Rs. 5 lakh per cubic meter of sand seized, in addition to the compensation already ordered or collected by State agencies.

However, the court noted that the CEC's report did not clearly state the basis for imposing the exemplary penalty. Consequently, the Supreme Court directed the CEC to adhere to the guidelines provided by the National Green Tribunal (NGT) concerning the imposition of penalties and the determination of compensation for illegal sand mining. The court also instructed the CEC to consider the provisions of the 2020 Sand Mining Guidelines while reassessing the penalty or compensation.

The judgment further underscored the severe damage caused to the environment due to rampant and unscientific illegal mining. By including the cost of restoring the ecology and environment in the compensation, the court aims to hold the polluters accountable not only for the harm caused to individuals but also for reversing the adverse effects on the environment.

In *M/s. NTPC Ltd. v. Uttarakhand Pollution Control Board*, The National Green Tribunal (NGT) upheld the penalty of Rs. 57.96 lakhs imposed on NTPC by the Uttarakhand Pollution Control Board (PCB) on the Polluter Pays principle for causing environmental damage. The NGT's three-member bench, comprising Chairperson Justice Adarsh Kumar Goel, Justice Sheo Kumar Singh, and Expert member Dr. Nagin Nanda, affirmed the PCB's order from December 2020, which required NTPC to pay compensation for violating muck disposal site maintenance norms, resulting in harm to the environment. NTPC had filed an appeal against the Uttarakhand PCB's order, issued under Section 33A of the Water (Prevention and Control of Pollution) Act, 1974. The NGT held that the Polluter Pays principle was rightly invoked for the environmental damage caused. It noted that the reports indicated hazardous slopes in the muck dumped by NTPC, which were double the standard, leading to potential erosion. Based on this non-compliance and the

⁴⁰ LL 2021 SC 638

observed environmental damage, the State PCB held NTPC liable for the compensation of Rs. 57.96 lakhs under the Polluter Pays principle. The NGT's decision further reinforces the accountability of polluters and emphasizes the need for responsible management of muck disposal sites to safeguard the environment.

In *Chandra Bhal Singh v. State of Raj and Ors.* The Rajasthan High Court in Jaipur issued significant directions to the State, instructing measures to prevent illegal mining and encroachments in forests, wildlife sanctuaries, forest reserves, and tiger reserves located in various areas, including Ranthambore, Sariska, Nahargarh, Jhalana, and others. The court highlighted the non-compliance of notifications issued under the Indian Forest Act, 1927, Wildlife Protection Act, 1972, and other relevant laws. Additionally, during the course of the hearing, the court was informed about the inadequate adherence to the 'Guidelines Tourism in and around Tiger Reserves' and the non-submission of the Tiger Conservation Plan (TCP) for the period 2023-34 to the National Tiger Conservation Authority (NTCA). Upholding the Doctrine of Public Trust, the court emphasized the State's responsibility to preserve and safeguard natural resources for the benefit of the public. To ensure effective enforcement, the court appointed Amicus Curiae to assist in compiling judicial pronouncements and reviewing relevant records. The court further directed specific officials to take actions in accordance with guidelines and statutory provisions, warning of appropriate proceedings if these orders are not followed⁴¹.

In *Residents Welfare Association & Anr. v. The Union Territory of Chandigarh & Ors.* The Supreme Court, while issuing directions to preserve the heritage of 'Corbusier' Chandigarh, urged the legislature and executive wings of the center and the states to consider the harmful effects of haphazard urban planning and take mitigative measures to protect the environment from being sacrificed in the name of development. The Division Bench comprising Justices B.R. Gavai and BV Nagarathna heard a plea by a residents' welfare association against the conversion of single residential units into apartments in Chandigarh. The petitioner claimed that this practice altered the character of the first planned city of India and overburdened existing infrastructure and facilities. The court emphasized the need for a proper balance between sustainable development and environmental protection. It urged the legislative and executive bodies to make provisions for carrying out Environmental Impact Assessment studies before permitting urban development. The court hoped that the Union of India and state governments would take earnest steps in this regard. The case reached the Supreme Court in an appeal against a 2021 verdict of the Punjab and Haryana High Court, which upheld the share-wise or floor-wise sale of houses designed by architect Le Corbusier in the northern sectors of Chandigarh, which had received a World

⁴¹ 2022 LL (Raj) 169

Heritage site tag from UNESCO. The appellant-association argued that the administration ignored the covert conversion of residential units into apartments, leading to environmental degradation and dilution of the city's heritage status⁴².

Conclusion and Suggestions

The evolution and impact of international environmental law have been instrumental in addressing global environmental challenges and shaping a path towards a sustainable future. The combination of treaties, customary international law, and soft law instruments has created a robust legal framework for environmental protection and fostered international cooperation. The proliferation of multilateral environmental agreements, such as the Convention on Biological Diversity and the Paris Agreement, highlights the commitment of nations to combat environmental degradation and work towards a more sustainable world.

Through the development of international environmental law, significant progress has been made in areas such as biodiversity conservation, pollution prevention, and climate change mitigation. These legal frameworks provide a basis for collaborative action, enabling nations to share responsibilities, establish environmental standards, and implement effective policies.

However, challenges still exist in the implementation and enforcement of international environmental law. Inconsistent compliance and varying interpretations of environmental obligations continue to pose obstacles. Strengthening monitoring mechanisms and enhancing capacity-building efforts can improve compliance rates and ensure the effectiveness of environmental regulations.

Moreover, it is essential to address the gaps in international environmental law, particularly in emerging areas such as the protection of marine resources, sustainable use of natural resources, and the regulation of emerging technologies. Continuous research and dialogue are necessary to adapt legal frameworks to evolving environmental challenges.

In light of the ever-increasing environmental threats, it is crucial to prioritize the implementation of international environmental law at the national and regional levels. Governments, non-governmental organizations, and civil society must work in partnership to promote environmental awareness, education, and sustainable practices.

The journey towards a sustainable future requires sustained commitment and collaboration. International environmental law serves as a crucial tool in fostering global cooperation, shaping policies, and driving collective action. By adhering to the principles and obligations laid out in

⁴² 2023 LL (SC) 24

international environmental treaties, nations can work together to address the pressing environmental issues of our time and ensure a healthier and more sustainable planet for future generations.

While this research paper provides an overview of the evolution and impact of international environmental law, there are several avenues for future research to delve deeper into specific aspects of this field. Some suggestions for further exploration include:

- Comparative analysis of the effectiveness of different multilateral environmental agreements in achieving their objectives and addressing specific environmental challenges.
- Examination of the role of non-state actors, such as civil society organizations and multinational corporations, in influencing the development and implementation of international environmental law.
- Assessment of the effectiveness and challenges associated with the enforcement mechanisms of international environmental law, including dispute settlement mechanisms and compliance monitoring.
- Analysis of the intersection between international environmental law and other areas of law, such as human rights law, trade law, and investment law, to identify potential synergies and conflicts.
- Exploration of innovative approaches and emerging trends in international environmental law, including the incorporation of indigenous knowledge and practices, the use of market-based instruments, and the regulation of new technologies.