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The Historical Development of International Environmental Law: A Legal Appraisal

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ABSTRACT: *International environmental law, which developed as a subset of international law in the mid-twentieth century is a body of international law concerned with protecting the environment, principally through multilateral and bilateral international treaties. International environmental law evolved as a result of widespread global concern about the ever increasing environmental challenges and the need for international action for the protection of the natural environment. While environmental protection activities started in several nations in the nineteenth century, these activities in general only dealt with environmental challenges within a particular nation. Likewise, there were conventions which tackled only a particular environmental problem and therefore, had inadequate global effects. An increasing body of reports shows the general scientific consensus of the reality of environmental degradation caused primarily by human activity and the need for an international solution to environmental problems. Scientific reports from around the world have established that environmental problems such as air and water pollution, natural resource depletion, deforestation, loss of biodiversity, climate change, etc, often have impacts that goes far beyond the boundaries of any specific nation. This paper assesses the historical development of international environmental law, particularly, as it relates to the early and modern development of international environmental law through treaties (conventions), international environmental conferences and non-binding soft law instruments. The paper further discusses the sources of international environmental law.*

KEYWORDS: International environmental law, development of international environmental law, sources of international environmental law, international environmental conventions, international environmental conferences

INTRODUCTION

In the last few decades, there has been a growing concern and consciousness about the need to protect the environment, both nationally and globally.[1] Environmental issues increasingly go beyond national boundaries and create severe problems to the health of the planet. The development of more effective environmental laws and legal systems throughout the world has therefore become crucial to directing economic development and growth onto a pathway of environmental sustainability.[2] The first Global Environment Outlook (GEO) report, produced by the United Nations Environment Program (UNEP), despondently observed:

The environment has continued to degrade during the past decade, and significant environmental problems remain deeply embedded in the socio-economic fabric of nations in all regions. Progress towards a global sustainable future is just too slow. A sense of urgency is lacking. Internationally and nationally, the funds and political will are insufficient to halt further global environmental degradation and to address the most pressing environmental issues – even though technology and knowledge are available to do so… Global governance structures and global environmental solidarity remain too weak to make progress a worldwide reality. As a result, the gap between what has been done thus far and what is realistically needed is widening.[3]

The principal environmental concerns has been identified to include depletion of the stratospheric ozone layer by CFCs and other gases; depletion of the world‘s tropical forests, leading to loss of forest resources, serious watershed damage (erosion, flooding, and siltation), and other adverse consequences; loss of crop and grazing land due to desertification, erosion, conversion of land to nonfarm uses, and other factors; rapid population growth, burgeoning Third World cities, and ecological refugees; mass extinction of species, principally from the global loss of wildlife habitat, and the associated loss of genetic resources; overfishing, habitat destruction, and pollution in the marine environment; mismanagement and shortages of freshwater resources; threats to human health from mismanagement of pesticides and persistent organic pollutants; acid rain and, more generally, the effects of a complex mix of air pollutants on fisheries, forests, and crops; and climate change due to the increase in greenhouse gases in the atmosphere.[4]

Given that environmental damage ignores boundaries, we need now more than ever, international norms in the form of laws to structure and condition human behaviour to sustainable environmental lifestyle, as humans seem to be the main culprit of environmental

[1]WWF-India & MoEF-India, *Handbook on International Environmental Agreements: An Indian Perspective* (World Wide Fund for Nature-India & Indian Ministry of Environment and Forests, 2006) p.1 (hereinafter, WWF-India & MoEF-India).
[2]Tseming Yang & Robert V. Percival, ‘The Emergence of Global Environmental Law’ (2009) 36 *Ecology Law Quarterly*, p.616.
[3]United Nations Environment Program (UNEP), *Global Environmental Outlook* (Oxford, Oxford University Press, 1997) p.3.
[4] Dionysia-Theodora Avgerinopoulou, Science-Based Lawmaking: Effective Integration of Science in International Environmental Law’ **(**PhD Thesis, School of Law, Columbia University, 2011) p.100.

destruction.[5] Thus, international environmental law has developed speedily, as environmental risks have become more evident and their assessment and management more difficult.[6] In 1972, there were only a few dozen multilateral agreements, and several countries did not have environmental legislation. Currently, there are hundreds of multilateral and bilateral environmental agreements and every country have one or more environmental statutes and/or regulations.[7]

Understanding International Environmental Law

International environmental law (IEL) is a developing field of international law that is receiving increasing legal and political attention.[8] IEL is a branch of public international law- a body of law created by States for States to manage problems that crop up between States. It is concerned with the effort to control environmental pollution and the depletion of natural resources within a framework of sustainable development. IEL covers topics like biodiversity, climate change, ozone depletion, toxic and hazardous substances, desertification, marine resources, and the quality of air, land and water. It in addition has synergies with associated fields of international law such as international trade, international finance, human rights, etc.[9]

In simple understanding, IEL encompasses those substantive, procedural and institutional rules of international law which have as their principal purpose the protection of the environment.[10] IEL is a body of international law concerned with protecting the environment, primarily through bilateral and multilateral international agreements. [11] IEL includes principles, procedures and rules of international law with main purpose of protecting the environment.[12] IEL is essentially the application of international law to environmental problems.[13] IEL can as well be described as the set of legal principles developed by national, international, and transnational environmental regulatory systems to protect the environment and manage natural resources.[14] Today, IEL can be explained as "a complex network of norms and institutions" that includes "modes of regulation that are often transnational, informal and voluntary in character".[15]

[5]Increasing the Effectiveness of International Environmental Law: Duties of States, Rights of Individuals', Report From The Club Des Juristes, Environment Committee, November 2015, pp.22-23; WWF-India & MoEF-India (Note 1) p.1; See Aurelija Pūraitė, 'Origins of Environmental Regulation' (2012) 19(2) *Jurisprudence*, p.659.
[6]Edith Brown Weiss, 'The Evolution of International Environmental Law' (2011) 54 *Japanese Yearbook of International Law*, p.1.
[7]*Ibid*.
[8]Sarah Valentine & Reed Smith, *International Environmental Law* (Advocates for International Development, 2012)
[9]DLA-MONRE, *International Environmental Law-Multilateral Environmental Agreements* (Ministry of Natural Resources and Environment, Department of Legal Affairs ((DLA-MONRE)), Hanoi – May 2017, p.11.
[10] WWF-India & MoEF-India (Note 1) p.1.
[11]Anshu Singh, 'Principles and Development of International Environmental Law' (2020) 10 *Acclaims*, p.1.
[12]Philippe Sands, *Principles of International Environmental Law* (Manchester: Manchester University Press, 1994).
[13]Tsegai Berhane & Merhatbeb Teklemedhn, *Environmental Law: Teaching Material* **(**Mekelle University Faculty of Law, 2009) p.3.
[14]Yang & Percival (Note 2) pp.616-617.
[15]Karen N Scott, 'The Dynamic Evolution of International Environmental Law' (2018) 49 *VUWLR*, p.624; Rakhyun E Kim, 'The Emergent Network Structure of the Multilateral Environmental Agreement System' (2013) 23 *GEC*, p.988; Philipp Pattberg & Oscar Widerberg 'Theorising Global Environmental Governance: Key Findings and Future Questions' (2015) 43 *Millenium: Journal of International Studies*, p.685.

Environmental problems stem from two major kinds of human activities: use of resources at unsustainable levels, and contamination of the environment by means of pollution and waste at levels beyond the capability of the environment to absorb them or make them harmless.[16] IEL aims to encourage humans to act as stewards of environment, instead of her exploiters, and thus to respect the functioning of environmental systems by reducing activities which disturb these systems. The ultimate goal of environmental law is to change the system of resource use incentives from those that encourage unsustainable development to those that encourage environmentally sustainable development.[17] One of the major objectives of IEL is that it seeks to protect non-human parts of the natural world: plants, animals, water, atmosphere, and systems that contain numerous or every of these elements, in addition to humans.[18] IEL also, requires states to regulate activities within their jurisdiction so that these activities do not cause harm to the environment in regions beyond their jurisdiction.[19]

The Historical Development of International Environmental Law (IEL)

IEL passed through two major phases of development. First, is the early development of IEL and second, is the development of modern IEL.

Early Development of International Environmental Law (IEL)

International environmental law (IEL) evolved as a subset of international law in the mid-twentieth century. Though, conservation movements evolved in several nations in the nineteenth century, these movements in general only tackled environmental problems within a single nation. Furthermore, there were conventions which focused only on particular issues and therefore, had restricted impacts.[20] Earlier efforts to develop IEL focused on the conservation of wildlife, i.e. fisheries, birds, and seals and to a restricted extent, the protection of rivers and seas. The following were the early treaties meant to protect only a few species which were regarded as valuable resources to humans, or to protect human health:

- Paris Convention for the Protection of Useful Birds to Agriculture, 1902
- Treaty for the Preservation of Fur Seals, Washington, 1911
- Convention Concerning the Use of White Lead in Painting, Geneva, 1921
- Convention for the Regulation of Whaling, 1931.[21]

[16]Dinah Shelton & Alexandre Kiss, *Judicial Handbook on Environmental Law* (United Nations Environment Programme, 2005) p.3.
[17]See A. Dan Tarlock, 'History of Environmental Law' in A. Dan Tarlock & John C. Dernbach, *Environmental Laws and their Enforcement* (Vol. I *Encyclopedia of Life Support Systems* (EOLSS), 2009); See William Boyd, Climate Change, Fragmentation, and the Challenges of Global Environmental Law: Elements of A Post-Copenhagen Assemblage' (2010) 32(2) *U. Pa. J. Int'l L.,* p.493.
[18]Singh (Note 11) p.13.
[19]See Ved P. Nanda, 'Trends in International Environmental Law' (2015) 20(2) *California Western International Law Journal*, p.188; *See generally* P Nanda, *The Establishment of International Standards for Transnational Environmental Injury*, (1975) 60 *IOWA L. Rev.*, pp.1095-1100.
[20]Singh (Note 11) p.1.
[21]WWF-India & MoEF-India (Note 1) p.2.

The 1909 Water Boundaries Treaty between the United States and Canada[22] was the first to commit its parties to preventing pollution, and under the auspices of its International Joint Commission a draft treaty on Pollution Prevention was drawn up in 1920, although not adopted.[23] In 1933, nations adopted the Convention Relative to the Preservation of Fauna and Flora in their Natural State, which intended to promote the establishment of natural parks and reserves, to protect forest areas, to safeguard particular wildlife species, and to regulate kinds of hunting and traffic in trophies.[24]

Also significant in this early stage of IEL development was the emergence of key IEL principles from three international arbitrations. The first of these was the *1893 Pacific Fur Seal Arbitration (Great Britain v. United States)*[25] which concerned a conflict between the United States and the United Kingdom, (even Canada, although it was still a colony of the British Empire, so represented by UK) in relation to the protection of fur seals in the Bering Sea from overexploitation in areas beyond national jurisdiction. This award set forth regulations for the 'proper protection and preservation' of fur seals outside jurisdictional limits. This case refused any submission that States had the right to claim jurisdiction by enacting measures connecting to the conservation of living resources beyond their jurisdiction, even though that meant the extinction of the species.[26] More specifically, in the *Pacific Fur Seal Arbitration*, the Court noted that waters of Behring Sea are open waters and fishing rights cannot be taken away by the US on the basis of conservation beyond the 3 mile area, which is a natural resource, open for all countries equally. Thus, the Court affirmed freedom of high seas with respect to fishing rights, hence, establishing the IEL principle of common heritage of mankind.[27]

The second arbitral award during this early development of IEL emanated out of a disagreement between the United States and Canada in the *Trail Smelter case (US v. Canada) (1941)*[28] over the emission of sulphur dioxide (fumes) from a trail smelter located in Canada which caused damage in the State of Washington as residues from these clouds of smoke contaminated the air and fell as toxic precipitation on several farms in the USA.[29] The *Trail Smelter case* laid down the international environmental law principle of state responsibility for

[22]*Treaty Between the United States and Great Britain Relating to Boundary Waters Between the United States and Canada*, U.S. - Can., January 11, 1909, 36 Stat. 2452.
[23]WWF-India & MoEF-India (Note 1) p.2.
[24]Avgerinopoulou (Note 4) p.74; *Convention Relative to the Preservation of Fauna and Flora in their Natural State, November 8, 1933, London, U.K., 17 L.N.T.S. 241*; See also the Register of International Treaties and Other Agreements in the Field of the Environment, United Nations Environmental Program publication 1996 <https://www.unep.org/resources/repor t/register-international-treaties-and-other-agreements-field-environment > accessed 30 July 2022.
[25]Behring Sea Fur Seals Fisheries Arbitration (Great Britain v United States), *Moore's International Arbitrations Awards* (1893) p.755.
[26]David Leary & Balakrishna Pisupati, 'Introduction' in David Leary & Balakrishna Pisupati (Eds), *The future of international environmental law* (United Nations University Press, 2010) p.4; Philippe Sands, 'Unilateralism, Values and International Law' (2000) 11(2) *European Journal of International Law*, p.293.
[27]Aastha Mehta, International Arbitration in Trans-National Environmental Disputes' *Journal of Legal Studies and Research*, Vol 2 Issue 3, p.16 <https://thelawbrigade.com/wp-content/uploads/2019/05/Astha-Mehta.pdf> accessed 30 August 2022.
[28]*Trail Smelter Arbitration (U.S. v. Canada), 3 R. Int'l Arb. Awards 1911 (1938/1941)*; Also see *Trail Smelter Case (United States v. Canada)*, Ad Hoc International Arbitral Tribunal, March 11, *1941, United Nations Reports of International Arbitral Awards*, Vol. 3 (1949), p.1938.
[29]WWF-India & MoEF-India (Note 1) p.2.

transboundary environmental damage. The decision in this case, was expressed in the following terms:

> Under the principles of international law, as well as of the law of the United States, no State has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in, or to the territory of another, or the properties or persons therein, when the case is of serious consequence, and the injury is established by clear and convincing evidence. It provides for state sovereign right to exploit their own resources pursuant to their environmental policies, but not to the detriment of states. States have the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other states, or areas beyond the limits of national jurisdiction.[30]

The third arbitral award during this early development of IEL arose from the *Lac Lanoux Arbitration Case (France v. Spain) (1957)*[31] pertaining to the circumstances wherein one State made legally use of shared international waters upon the fulfilment of the procedural obligations of prior notification, consultation, and negotiation with other States. The existence of a general customary obligation on States to co-operate with regards to the development and utilisation of international watercourses was recommended in the *Lac Lanoux Arbitration* where it was stated that:

> States are today perfectly conscious of the importance of the conflicting interests brought into play by the industrial use of international rivers, and of the necessity to reconcile them by mutual concessions. The only way to arrive at such compromises of interests is to conclude agreements on an increasingly comprehensive basis … There would thus appear to be an obligation to accept in good faith all communications and contacts which could, by a broad comparison of interests and by reciprocal good will, provide States with the best conditions for concluding agreements …[32]

While the *Pacific Fur Seal Arbitration* affirmed the freedom of high seas with respect to fishing rights, hence, establishing the IEL principle of common heritage of mankind, the *Trail Smelter Arbitration* is regarded the key case in the development of the responsibility to prevent transboundary environmental harm, which is currently mostly accepted as a principle of customary international law.[33] And, the *Lac Lanoux Arbitration* dealt with procedural obligations of prior notification, consultation, and negotiation. These decisions have been cited

[30]Trail Smelter Arbitration (U.S. v. Canada); Nanda (Note 19) p.188; WWF-India & MoEF-India (Note 1) p.2; Lawrence Atsegbua, Vincent Akpotaire & Folarin Dimowo, *Environmental Law in Nigeria: Theory and Practice* (2nd Edn., Benin City: Ambik Press) pp.47-48.
[31]*Lake Lanoux Case (France -v. Spain),* Ad Hoc International Arbitral Tribunal, November 16, 1957, *United Nations Reports ofInternational Arbitral Awards,* Vol. 12 (1963) p.281.
[32]Owen McIntyre, 'The Role of Customary Rules and Principles in the Environmental Protection of Shared International Freshwater Resources' (2006) 46(1) *Natural Resources Journal,* p.179; *Lac Lanoux Arbitration (France v. Spain),* Award of 16 November 1957, 12 R.I.A.A. 281; See 1974 *Yearbook of the International Law Commission,* vol. 2, part 2, 194, at197, para 1065.
[33]Leary & Pisupati (Note 26) p.4.

frequently in later writings on international environmental law, partly because few other important decisions exist during this period.[34]

For the most part, the decisions by the arbitral tribunals on environmental issues have played a significant role in enhancing the legitimacy of international environmental issues and authenticating that international rules can play an important role in contributing to the protection of shared environmental resources. International courts and tribunals have as well acted to explain the meaning and effect of treaty norms, to identify the existence of customary norms of general application, and to establish a more fundamental role for environmental considerations in the international legal order.[35]

Nevertheless, the development of IEL through decisions of arbitral tribunals and other international judicial bodies has been the exception rather than the rule. For the large part, IEL has developed through bilateral and multilateral negotiation of treaties and "soft law" instruments such as declarations and plans of action. During the early development of IEL most of the treaties that were developed were solely utilitarian in character; attempts at protecting or conserving particular species were motivated mostly by their usefulness rather than environmental protection per se.[36]

Development of Modern International Environmental Law

The commencement of 'modern' international environmental law is generally dated to 5 June 1972, the opening day of the first United Nations (UN) Conference on the Human Environment in Stockholm (the Stockholm Conference), presently yearly celebrated as World Environment Day.[37] The Stockholm Conference is commonly recognized as the catalyst that focused international attention and action on the significance of the environment in the international system. The inspirational Stockholm Declaration adopted there declared that environmental problems go beyond national borders.[38] According to *Ulrich Beyerlin*, the Stockholm Conference was characterized by a shift in the interests of states from transboundary environmental matters to international environmental concerns. Simultaneously the states' awareness of the close interdependency of development and the environment improved.[39]

As a result of the Stockholm Conference, countries created the first international intergovernmental organization focused on environmental protection: the United Nations Environment Programme (UNEP) in Nairobi, Kenya. Although, UNEP was not created as a United Nations specialized agency and therefore, do not have the status of other UN

[34]Weiss (Note 6) p.4.

[35]*Philippe Sands,* Litigating Environmental Disputes: Courts, Tribunals and the Progressive Development of International Environmental Law [Contribution to the Liber Amicorum of Judge Thomas Menash – 2007] *(OECE Global Forum on International Investment, 27-28 March 2008)* p2.

[36]Leary & Pisupati (Note 26) p.4; Bhrat H. Desahi, Institutionalizing International Environmental Law (New York: Transnational Publishers Inc., 2004) p.71.

[37]Peter H. Sand (Ed), '*The History and Origin of International Environmental Law*' (The International Library of Law and the Environment Series) (Edward Elgar Publishing Limited, 2015) p.xv; Pūraitė (Note 5) pp.662-663; See Scott (Note 15) p.607.

[38]Parvez Hassan, Role of the Developing Countries in the Development of International Environmental Law' A paper presented at the Third Asian Judges Symposium on the Environment organized by the Asian Development Bank, at Manila, Philippines, on 26-27 September 2016, p.6.

[39]Ulrich Beyerlin, 'Bridging the North-South Divide in International Environmental Law' (2006) 66 *ZaöRV*, p.260.

organizations such as the United Nations Food and Agricultural Organization (FAO) or the United Nations Educational, Scientific, and Cultural Organization (UNESCO). All member countries belong to the governing body of the specialized agencies, while UNEP's Governing Council includes only some of the member countries. The specialized agencies are set up by international agreement and by Articles 57 and 63 of the United Nations Charter, and are connected to the UN Economic and Social Council. UNEP is connected to the United Nations General Assembly.[40] The decision to locate UNEP in Kenya was particularly important, because the specialized United Nations agencies were all situated in developed countries. UNEP's location sent a signal that environmental problems were common to all countries.[41]

The Stockholm conference in addition resulted in the adoption of the Stockholm Declaration[42] setting out twenty-six Principles and an Action Plan containing 109 recommendations.[43] The Stockholm Conference, in Principle 11 of its Stockholm Declaration recognized that:

> the environmental policies of all states should enhance and not adversely affect the present or future development potential of developing countries, nor should they hamper the attainment of better living conditions for all, and appropriate steps should be taken by states and international organizations with a view to reaching agreement on meeting the possible national and international economic consequences resulting from the application of environmental measures.[44]

As Philippe Sands has observed:

> The Stockholm Conference set the scene for international activities at the regional and global level, and influenced legal and institutional developments up to and beyond UNCED. Developments in this period are of two types: those directly related to Stockholm and follow-up actions; and those indirectly related thereto. The period was marked by: a proliferation of international environmental organisations (including those established by treaty) and greater efforts by existing institutions to address environmental issues; the development of new sources of international environmental obligations from acts of such organisations; new environmental norms established by treaty; the development of new techniques for implementing environmental standards; including environmental impact assessment and access to information; and the formal integration of environment and

[40]UNEP was established by U.N. General Assembly Resolution 2997 (XXVII) of December 15, 1972, and reaffirmed by U.N. General Assembly Resolution, U.N. Doc. A/RES/31/112, December 16, 1976; Weiss (Note 6) p.5.
[41]Weiss, *ibid*.
[42]Declaration of the UN Conference on the Human Environment, Stockholm, 5–16 June 1972, contained in *Report of the UN Conference on the Human Environment*, UN Doc. A/CONF.48/14 and Corr.1 (1972).
[43]*Ibid*.
[44]Beyerlin (Note 39) p.262; Stockholm Declaration, Principle 11.

development, particularly in relation to international trade and development assistance.[45]

Thus, it is reasonable to say that it was the Stockholm Conference of 1972 which actually marked a turning point in the development of IEL. By drawing the attention of the world community to the seriousness of the declining conditions of human environment, the Stockholm Conference, with its Stockholm Declaration, succeeded in setting up certain guiding principles that should govern the protection of the environment.[46]

IEL as well developed notably in several other areas. Foremost is the *1982 United Nations Convention on the Law of the Sea*, which provides unequivocally in Article 192 that states are to protect and preserve the marine environment and in later articles sets forth comprehensive measures to be taken to do so.[47] Protection of the environment during warfare also evolved as a significant subject of international law, as exemplified by the *Convention on the Prohibition of Military or any Other Hostile Use of Environmental Modification Techniques*, which prohibits the use of those techniques "having widespread, long-lasting or severe effects as the means of destruction, damage or injury to any other State Party."[48]

Further, the World Commission on Environment and Development (WCED) or better known as Brundtland Commission was established by the UN General Assembly in 1983 to develop a long-term environmental strategy for sustainable development. It is an independent body connected to but outside the UN system. Its objective was to take up the critical relationship between reconciling or balancing the two subjects of environment and development; to propose new forms of international cooperation on these issues to influence policies in the direction of required changes; also, to increase the levels of understanding and commitment to action of individuals, organizations, businesses and governments.[49] The work of the WCED led to the publication in 1987 of its report "Our common future"[50] which stressed that economic growth is desirable and achievable within a context of sustainable development. The report defined "Sustainable development" as development that meets present and future environment and development goals and concluded that without an equitable sharing of the costs and benefits of environmental protection within and between countries, neither social justice nor sustainable development can be achieved.[51]

[45]Leary & Pisupati (Note 26) pp.5-6; Sands (Note 12) p.40.
[46]Hisashi Owada, 'International Environmental Law and the International Court of Justice' *Inaugural Lecture at the Fellowship Programme on International and Comparative Environmental Law*, Iustum Aequum Salutare II. 2006/3–4, pp.5–32:5-6.
[47]*United Nations Convention on the Law of the Sea, with Annexes and Index, December 10, 1982, United Nations Treaty Series*, Vol. 1833, p. 3 (No. 31363); Weiss (Note 6) p.8.
[48]Weiss (Note 6) p.8; *Convention on the Prohibition of Military or any Hostile Use of Environmental Modification Techniques (ENMOD Convention), May 18, 1977*, Article 1, *United Nations Treaty Series*, Vol. 1108, p.151 (No. 17119). The Convention covers techniques that change "through the deliberate manipulation of natural processes, the dynamics, composition or structure of the Earth."
[49]Singh (Note 11) p.6; World Commission on Environment and Development, *Our Common Future* (Oxford: Oxford University Press, 1987).
[50]Yasmin von Schirnding, William Onzivu & Andronico O. Adede, International Environmental Law and Global Public Health' (2002) 80(12) *Bulletin of the World Health Organization*, p.970.
[51]Singh (Note 11) p.6.

Another important event in the modern development of IEL was the adoption of the *World Charter for Nature* by the General Assembly of the United Nations on October 28, 1982 that has had significant impacts on IEL.[52] The 1982 *UN General Assembly World Charter for Nature*, which emphasises the relationship between the destiny of humanity and nature provides in its preamble that "mankind is a part of nature and life depends on the uninterrupted functioning of natural systems which ensure the supply of energy and nutrients." The Charter noted that our needs can be fulfilled only by the natural systems functioning appropriately. It in addition provides that conservation of natural resources will be recognized as a significant part of the planning and implementation of economic and social developments and the Charter shall be integrated into the law and practice of the member States. This UN instrument has been hailed for its ecocentric approach to environmental protection and conservation and for emphasising the rights of nature separately from those of human beings by recognizing that "every form of life is unique, warranting respect regardless of its worth to man".[53]

Another landmark in the development of modern IEL is the United Nations Conference on Environment and Development (UNCED) in Rio de Janerio, Brazil, from 3-14 June 1992 (The Rio Conference). The goal of the conference was to elaborate strategies and measures to stop and reverse the impacts of environmental degradation in the perspective of strengthened national and international efforts to promote sustainable and environmentally sound development. UNCED was concerned with the balance between environmental protection and economic development. The aim of UNCED was to formulate suitable mechanisms to tackle the practical crisis facing humanity in protecting the environment while still assuring a minimum level of development.[54]

According to Edith Brown Weiss, the Rio Conference produced four significant documents for IEL: the Rio Declaration on Environment and Development (the Rio Declaration),[55] Agenda 21, the UN Convention on Biological Diversity and the UN Framework Convention on Climate Change. The Rio Declaration is a non-legally binding document which laid the foundation for the speedy development of new principles and rules of IEL. The Rio Declaration is a brief statement of 27 principles or objectives designed to be a source of inspiration and guidance for domestic legislators and policy-makers in issues connecting to the environment and sustainability. Agenda 21 is a global programme of action on sustainable development[56] which set forth a comprehensive plan of actions that States were to take.[57] Agenda 21 consists of a preamble and four sections: Social and Economic Dimensions, Conservation and Management

[52]Anabi A & Jalali M., 'Study in the Evolution of International Environmental Law' (2018) 7(13) *Amazonia Investiga*, p.74; Hassan (Note 38) p.8.
[53]Linda Hajjar Leib, Human Rights and the Environment: Philosophical, Theoretical and Legal Perspectives*' in* Malgosia Fitzmaurice, Panos Merkouris & Phoebe Okowa (Eds), *Queen Mary Studies in International Law* (Vol.3, Koninklijke Brill NV, Leiden, The Netherlands, 2011) pp.39-40; *United Nations World Charter for Nature*, GA Res 37/7, UN GAOR, 37th sess, 48th plen mtg, UN Doc A/Res/37/7 (1982).
[54]Environmental Law: Introduction to International Environmental Law, p.8 <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> accessed 15 July 2022.
[55]*Rio Declaration on Environment and Development, Report of the United Nations Conference on Environment and Development, U.N. Doc. A/CONF.151/26/Rev.1 (1992).*
[56]*United Nations Conference on Environment and Development, Agenda 21, U.N. Doc. A/CONF.151/26/Rev.1 (1992).*
[57]Weiss (Note 6) pp.10-11.

of Resources for Development, Strengthening the Role of Major Groups, and Means of Implementation.[58] The Agenda 21 plan of action consist of a series of non-binding chapters on essential institutional and substantive topics like transboundary air pollution, biodiversity, access to environmental information, biotechnology, and chemicals. In several of these subfields, Agenda 21 has guided substantive environmental policy-making at the international level for the past two decades.[59]

The two other major environmental treaties, as noted earlier, that were adopted at the Rio Conference are the *United Nations Convention on Biological Diversity* and the *United Nations Framework Convention on Climate Change*.[60] The Rio Conference also adopted a "*Non-Legally Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of all Types of Forests (Rio Forest Principles)*,[61] and led to the later negotiation of a Convention on Desertification.[62] It resulted in the creation of a new institution at the United Nations, the *Commission on Sustainable Development (CSD)*, to review and monitor progress made in implementing Agenda 21.[63] However, the High Level Political Forum on Sustainable Development has replaced CSD in 2013.[64]

The *Earth Charter* launch at The Hague in 2000[65] is another significant non-binding soft law document that has influenced the development of modern IEL. The *Earth Charter* is an inspirational statement of lofty concepts as it builds on the fundamental human freedoms of expression, worship, dignity and security and adds the essential freedom to live in a world which is in harmony with nature. It provides a richness of content that is remarkable in its sheer breadth.[66] There are four basic principles, (1) Respect and Care for the Community of Life, (2) Ecological Integrity, (3) Social and Economic Justice and (4) Democracy, Non Violence and Peace, which are in turn supported by several subsidiary principles. The reason behind the Earth Charter, to provide a document that is intellectually and emotionally engaging and that

[58]Leib (Note 53) p.37.
[59]K. Russell Lamotte, 'Mechanisms for Global Agreements' in Roger R. Martella, J R. & J. Brett Grosko (Eds), *International Environmental Law: The Practitioner's Guide to the Laws of the Planet* (Section on Environment, Energy and Resources, American Bar Association, 2014) p.996.
[60]Leib (Note 53) p.37; *Convention on Biological Diversity*, Opened for signature 5 June 1992, 1760 UNTS 79 (Entered into force 29 Dec. 1993); *The UN Framework Convention on Climate Change*, Opened for signature 4 June 1992, 31 ILM 849 (Entered into force 21 Mar. 1994); See also Convention on Biological Diversity, June 5, 1992, *United Nations Treaty Series*, Vol. 1760, p.79 (No. 30619); See also, the United Nations Framework Convention Climate Change (UNFCC), May 21, 1992, *United Nations Treaty Series*, Vol. 1771, p.107 (No. 30822).
[61] *Non-Legally Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of All Types of Forests, U.N. Doc. A/CONF.151/26 (Vol. III) (1992)*.
[62] *United Nations Convention to Combat Desertification in those Countries Experiencing Drought and/or Desertification, Particularly in Africa, June 17, 1994, United Nations Treaty Series*, Vol. 1954, p.3 (No. 33480).
[63]Weiss (Note 6) pp.10-11, Environmental Law: Introduction to International Environmental Law (Note 54) p.8; WWF-India & MoEF-India (Note 1) pp.2-4.
[64]Environmental Law: Introduction to International Environmental Law, *ibid*.
[65]The Earth Charter, launched at The Hague in 2000.
[66]Hassan (Note 38) pp.13-14; See, generally, Parvez Hassan, 'Earth Charter: The Journey from the Hague 2000' *2002 Pakistan Law Journal* (Magazine) pp.1-4; Parvez Hassan, 'Earth Charter: An Ethical Lodestar and Moral Force' in P. Corcoran, M. Vilela & A. Roerink (Eds), *The Earth Charter in Action: Toward a Sustainable World* (KIT Publishers, Amsterdam 2005) pp.29-31.

commands the respect of diverse traditions, is well summed up in the Earth Charter Briefing Book (2000):

> ...the Charter should be ... a declaration of fundamental ethical principles for environmental conservation and sustainable development; composed of principles of enduring significance that are widely shared by people of all races, cultures, religions, and ideological traditions; relatively brief and concise; a document with a holistic perspective and an ethical and spiritual vision; composed in language that is inspiring, clear, and uniquely valid and meaningful in all languages; a declaration that adds significant new dimensions of value to what has already been articulated in relevant documents.[67]

The 2000 *Earth Charter*, the result of a decade of extensive global consultation, introduced a sense of solidarity and ethical dimension in dealing with environmental issues by proposing a "shared vision of basic values to provide an ethical foundation for the emerging world community."[68] The *Earth Charter* reiterates the principle of the inherent worth of nature provided in the *1982 United Nations General Assembly World Charter for Nature* by recognising "that all beings are interdependent and every form of life has value regardless of its worth to human beings."[69]

The *2002 Johannesburg World Summit on Sustainable Development (WSSD)*[70] held in Johannesburg, South Africa is another significant event in the development of modern IEL. The intention of the Summit was to conduct a 10-year review of Agenda 21 and to guarantee a balance between the three reinforcing components of sustainable development-economic development, social development and environmental protection.[71] The WSSD produced two significant documents-the *Johannesburg Declaration on Sustainable Development*; and *Johannesburg Plan of Action*.[72] The WSSD highlighted the need to walk the talk in terms of identifying time lines for action and also focus mostly on development and poverty eradication. A Plan of Implementation prioritized five (5) areas, water, energy, health, agriculture and biodiversity (WEHAB) as a part of the overreaching goal of poverty alleviation.[73]
Additionally, in 2012, the *United Nations Conference on Sustainable Development (Rio+20)* was held in Rio de Janeiro from 20 to 22 June 2012. The Rio+20 culminated with the final document "The Future We Want", which outlines the key issues and challenges in the path of achievement of the goal of sustainable development.[74] To a large extent the Rio+20 Summit was a continuation of WSSD in terms of the nature of the discourse. The outcome document covers approximately all issues relevant to development such as inclusive and equitable

[67]Hassan, *ibid*, p.14; See, generally, the Earth Charter Briefing Book (2000).
[68]Leib (Note 53) p.40; *The Earth Charter*, Preamble.
[69]Leib, *ibid*, p.40; *The Earth Charter*, *ibid*, Preamble.
[70]Convened by the United Nations General Assembly Resolution 55/199.
[71]Environmental Law: Introduction to International Environmental Law (Note 54) p.8; Hassan (Note 38); See, generally, Parvez Hassan, The Johannesburg Summit: Making it Happen, *2003 Pakistan Law Journal* (Magazine) pp.41-49.
[72] Marcos A. Orellana, 'Typology of Instruments of Public Environmental International Law' *ECLAC-Environment and Development Series No. 158* (United Nations, 2014) p.22.
[73]Hassan (Note 38) p.14.
[74]Orellana (Note 72); Environmental Law: Introduction to International Environmental Law (Note 54) p.9.

economic growth; reduction of inequalities; raising of basic standards of living; equitable social development; and sustainable management of natural resources. The outcome document reiterates the three pillars of sustainable development identified at WSSD, that is, economic development, social development and environmental protection. It as well reinforces poverty eradication as an essential requirement for sustainable development. It was further determined to strengthen the institutional framework for sustainable development.[75]

Sources of International Environmental Law

In theory, the sources of IEL are the same as those of general international law. The most broadly recognized sources of international law comes from the agreement creating the International Court of Justice (ICJ), which is the principal judicial organ of the United Nations and plays a foremost role in identifying and developing international law. Article 38(1) of the *Statute of the ICJ*[76] provides the following sources of international law:

• International conventions (treaties), whether general or particular, establishing rules expressly recognized by the contesting states
• International custom, as evidence of a general practice accepted as law
• The general principles of law recognized by civilized nations
• Judicial decisions and the teachings of the most highly qualified publicists of various nations, as subsidiary means for the determination of rules of law.[77]

International Conventions (Treaties), Whether General or Particular, Establishing Rules Expressly Recognized by the Contesting States

Treaties are the major source of international law for the environment.[78] Article 2(1)(a) of the *1969 Vienna Convention on the Law of Treaties*[79] defines a treaty as "an international agreement concluded between states in written form and governed by international law, whether embodied in a single instrument or in two or more related instruments and whatever its particular designation." The term "treaty" which is the generic name, comprises, among others, the terms convention, agreement, pact, protocol, charter, statute, covenant, engagement, accord, exchange of notes, *modus vivendi*, and memorandum of understanding. Provided that an instrument falls under the above definition, it would be regarded to be a treaty and, thus, binding under international law.[80]

[75]Environmental Law: Introduction to International Environmental Law, *ibid*.
[76]*Statute of the I.C.J., Oct. 24, 1945, 33 U.N.T.S.993*, Article 38(1).
[77]Lamotte (Note 59) pp.965-966; WWF-India & MoEF-India (Note 1) pp.5-6; See Chris Wold, David Hunter & Melissa Powers, *Climate Change and the Law* (2nd Edn., Lexis-Nexis, 2013); Christoph Schreuer, *Sources of International Law: Scope and Application* (Emirates Lecture Series 28, The Emirates Centre for Strategic Studies and Research, 2000) p.3.
[78] Onvizu William, 'International Environmental Law, the Public's Health, and Domestic Environmental Governance in Developing Countries' (2006) 21(4) *American University International Law Review*, p.611; See Sands (Note 12) pp.104-106.
[79]*Vienna Convention on the Law of Treaties 1969*, entered into force in 1980.
[80]Nicholas A. Robinson & Lal Kurukulasuriya, *Training Manual on International Environmental Law* (Pace University: Pace Law Faculty Publications, 2006) p.2.

There are over 500 international treaties and other agreements connected to the environment, of which a considerable proportion is multilateral.[81] Currently, relationships between states are conducted through treaties, and treaties provide the international laws to be followed in disputes between those states.[82] In other words, treaties are the main mechanism engaged by states in the conduct of their relations with each other. They provide the framework for modern international relations between States on environmental concerns. A treaty is binding only among its parties.[83]

Some principal international environmental treaties are the Ramsar Convention on Wetlands of International Importance Especially as Waterfowl Habitat 1971, the Convention concerning the Protection of the World Cultural and Natural Heritage 1972, the Convention on International Trade in Endangered Species of Wild Fauna and Flora 1973, International Convention for the Prevention of Pollution from Ships 1973/78, the United Nations Convention on the Law of the Sea 1982, the Vienna Convention for the Protection of the Ozone Layer 1985, Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal 1989, the Convention on Biological Diversity 1992, the United Nations Framework Convention on Climate Change 1992, the United Nations Convention to Combat Desertification in those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa 1994, the Convention on the Law of the Non-navigational Uses of International Watercourses 1997, the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade 1998, the Stockholm Convention on Persistent Organic Pollutants 2001, the Minamata Convention on Mercury 2013.[84]

International Custom, As Evidence of a General Practice Accepted as Law

The second most important source of international law, and thus of IEL, is international custom. Before treaties became as significant as they are presently, customary international law was the leading source of international law: the way things have always been done becomes the way things must be done.[85] Customary international law evolves from patterns of behaviour among states. These behaviour patterns are called practice.[86] Generally, state practice is how states behave in practice that forms the basis of customary law. Evidence of what a state does can be obtained from various sources such as: administrative acts, legislation, decision of courts, activities like treaty making etc. In addition, resolutions of the general assembly, decisions of international judicial institutions, decisions of national courts, states municipal laws may form

[81] Louise Kathleen Camenzuli, The Development of International Environmental Law at the Multilateral Environmental Agreements' Conference of the Parties and its validity <http://www2.ecolex.org/server2neu.php/libcat/docs/LI/MON-085461.pdf> accessed 20 July 2022.
[82]Salman Jaffry, 'Development of Environment Law by the UN: Case of Implementation in Pakistan' Helsinki Metropolia University of Applied Sciences, p.23 <https://www.theseus.fi/bitstream/handle/10024/141902/Development%20of%20Environment%20Law%20by%20The%20UN%20-%20Case%20of%20Implementation%20in%20Pakistan.pdf?sequence=1&isAllowed=y> accessed 20 July 2022.
[83]Robinson & Kurukulasuriya (Note 80) p.2.
[84] See UNEP, Division of Environmental Conventions, 'Links to Multilateral Environmental Agreements': http://www.unep.org/dec/links/index.html (1 January 2007); See generally, DLA-MONRE (Note 9) p.5-8; Camenzuli (Note 80) p.3; See also, Avgerinopoulou (Note 4) pp.100-101.
[85]Robinson & Kurukulasuriya (Note 80) pp.7-8.
[86]Schreuer (Note 77) p.6.

the foundation of customary rules.[87] If there is a belief that this practice, that is, State practice, is based on a legal obligation or opinion juris, this could be regarded as customary international law.[88] Thus, custom exists when there is "evidence of a general practice, accepted as law".[89] The importance of custom lies in the reality that it establishes legal obligations for all states except those which have constantly objected to a practice and its legal consequences.[90]

Thus, the identification of a rule of customary international law needs, as established in Article 38(1)(b) of the ICJ Statute, evidence of two elements: general practice and *opinio juris*. First, to qualify as general practice, a practice must be consistent (albeit not uniform), extensive (albeit not universal), and include those states whose interests are specially affected. The elapsing of any specific period is not important. However, the custom must have been used over a period of time. A single precedent is not sufficient to establish customary rules. Secondly, to give rise to a customary rule, the general practice must be undertaken with a sense of legal obligation, *i.e.*, it must be accompanied by *opinio iuris*. That is, the practice should be seen by states as governed by international law.[91] As the ICJ has put it:

> Not only must the acts concerned be a settled practice, but they must also be such, or be carried out in such a way, as to be evidence of a belief that this practice is rendered obligatory by the existence of a rule requiring it. …The States concerned must feel that they are conforming to what amounts to a legal obligation.[92]

Put differently, there are two criteria for determining whether a rule of international customary law exists: (1) the state practice should be consistent with the "rule of constant and uniform usage" (*inveterate consuetudo*) and (2) the state practice exists because of the belief that such practice is required by law (*opinio juris*). Both components are complementary and obligatory for the creation of customary international law.[93] In *Libya/Malta case*,[94] the ICJ noted that the substance of customary law must be looked for primarily in the actual practice and opinion-juris of states.[95]

Customary international law is as legally binding as treaty law. It can be argued that customary international law has a broader scope: a treaty is applicable only to its parties and it does not

[87]Atsegbua, Akpotaire & Dimowo (Note 30) p.333.
[88]Schreuer (Note 77) p.6.
[89]Shelton & Kiss (Note 16) p.16.
[90]WWF-India & MoEF-India (Note 1) p.8.
[91] Rita Guerreiro Teixeira, 'The Role of International Organizations in the Development of International Environmental Law: Adjusting the Lenses of Analysis' (2021) 53(1) *Case Western Reserve Journal of International Law*, pp.252-253; *Statute of the I.C.J., Oct. 24, 1945, 33 U.N.T.S. 993*, Art. 38(1)(b) [hereinafter Statute of the I.C.J.]; International Law Commission, Draft Conclusions on Identification of Customary International Law, U.N. Doc. A/73/10, at 124 (2018); WWF-India & MoEF-India, *ibid*.
[92]*North Sea Continental Shelf* cases, ICJ Reps, 1969, p.3 at 44; Christopher Greenwood, Sources of International Law: An Introduction (2008) <https://legal.un.org/avl/pdf/ls/greenwood_outline.pdf> accessed 14 July 2022.
[93]Robinson & Kurukulasuriya (Note 80) pp.7-8.
[94]*Libya/Malta case, ICJ Report 1985*, pp.13, 29; 81 ILR, p.239.
[95]Atsegbua, Akpotaire & Dimowo (Note 30) p.333.

create either rights or obligations for a third state without its consent, but customary law is applicable to *all* states (except it constitutes regional custom).[96]

General Principles of Law Recognized by Civilized Nations

The third source listed in the ICJ Statute identifies general principles of law as a source from which international law, and thus, IEL, may arise. General principles of law are not the same as customary international law. Custom comprises of rules arising out of inter-state practice over time, whereas general principles of law are those principles that are common to the main legal systems of the world, if not to all of them. They therefore, are a matter of comparative law, not international law in origin.[97] General principles of law usually include both principles of the international legal system plus those common to or recognized by the major national or municipal legal systems of the world.[98] General principles of law are established by comparing national legal systems. Any principle common to all or several of these systems may be applied as well in an international law perspective. Examples of General principles of law would be principles like the binding nature of agreements, protection of acquired rights, prohibition of unjust enrichment or principles of procedural fairness before a court of law.[99]

A current account of general principles of law as a source of IEL, regards it to comprise two types of general principles: general principles of municipal law, which are common to a majority of states and which can be transposed to the international legal system, and principles of international law, that develop directly in the international legal system. Whereas the process for the identification of general principles is not visibly clear, the principal requirement appears to be the verification that they enjoy general acceptance by states (also referred to as endorsement or recognition). General acceptance can be derived either from the inclusion of a principle in municipal legal orders or from its deduction from rules of international law, which states have already accepted, and declarations of states directly recognizing the principle.[100]

General principles of law, being distinct from customary law, do not thus depend on actual State behaviour. By reference to the dissenting opinion of *Judge Tanaka* in the *South West African cases (Second Phase)*, general principles of law extend 'the concept of the sources of international law beyond the limit of legal positivism, according to which the States are bound only by their own will'.[101] General principles of law appear to conform more closely than the concept of custom to the circumstances where a norm invested with strong inherent authority is extensively accepted even if extensively violated.' Also, the practice element is regarded to be unnecessary in the context of general principles of law in the sense that there is in addition

[96]Robinson & Kurukulasuriya (Note 80) pp.7-8.
[97]Shelton & Kiss (Note 16) p.17.
[98]Robinson & Kurukulasuriya (Note 80) p.8.
[99]Schreuer (Note 77) p.7.
[100]Teixeira (Note 91) pp.255-256; *Statute of the ICJ (Note 76)* Article 38(3); See Bruno Simma & Philip Alston, 'The Sources of Human Rights Law: Custom, Jus Cogens, and General Principles' (1988–1989) 12 *Australian Yearbook of International Law*, pp.82,88;
[101]Christina Voigt, The Role of General Principles in International Law and their Relationship to Treaty Law' (2008) 2(3) *Nordic J Int Law Justice*, p.6; Dissenting opinion, Judge Tanaka, *South West African cases (Second Phase)* ICJ Reports 1966, 298.

an element of recognition on the part of civilised peoples but the requirement of a general practice is absent.'[102]

The behaviour and consent of States are therefore not a necessary prerequisite to the recognition of general principles of law. They are commonly based on the acceptance and recognition by States. State practice, which is a requirement for custom, is not essentially a precondition for general principles to evolve. The grounds for their legitimacy derive from three different directions: Acceptance in a high number of national legal systems (from where they can be elevated to the level of international law by way of analogy); Acceptance directly on the international level (from where they can percolate down into domestic fora); and natural law arguments.[103]

Judicial Decisions and the Teachings of the Most Highly Qualified Publicists of Various Nations, As Subsidiary Means for the Determination of Rules of Law

The fourth source of international law and thus, IEL, enumerated in article 38(1)(d) of the Statute of the ICJ is judicial decisions and the teachings and writings of the most highly qualified publicists of the various nations.

Judicial Decisions

Judicial decisions is one of the sources of IEL enumerated in article 38(1)(d) of the Statute of the ICJ. Decisions of the ICJ itself or of other international tribunals are considered as source of IEL if there is no treaty on a specific contentious issue in international law, no customary rule of international law and no applicable general principles of international law.[104] For example, the concept of sustainable development was referred to by the ICJ in the *Gabcikovo–Nagymaros Project (Hungary/Slovakia) case (1997)* as the main concept which rightly expresses in a single framework the need to balance and reconcile the two conflicting interests of economic development and environmental protection. The Court, in particular held as follows:

> The Court is mindful that, in the field of environmental protection, vigilance and prevention are required on account of the often irreversible character of damage to the environment and of the limitations inherent in the very mechanism of reparation of this type of damage. Throughout the ages, mankind has, for economic and other reasons, constantly interfered with nature. In the past, this was often done without consideration of the effects upon the environment. Owing to new scientific insights and to a growing awareness of the risks for mankind-for present and future generations-of pursuit of such interventions at an unconsidered and unabated pace, new norms and standards have been developed, set forth in a great number of instruments during the last two decades. Such new norms have to be taken into consideration, and such new standards given proper weight, not only when States contemplate new activities but also when continuing with activities begun in the past. This need to reconcile economic development

[102] Voigt, *ibid*; Simma & Alston (Note 100) p.102; B. Cheng, *General Principles of Law as Applied by International Courts and Tribunals* (London: Stevens, 1953) p.24.
[103] Voigt, *ibid*, pp.6,9; See Dissenting Opinion by Judge Tanaka, in *South West African Cases*, ICJ Report 1966.
[104] Robinson & Kurukulasuriya (Note 80) p.9; Singh (Note 11) p.11.

> with protection of the environment is aptly expressed in the concept of sustainable development.[105]

Further, upon the request of the General Assembly resolution 49/75, filed on 6 January 1995 in line with Article 96(1) of the United Nations Charter, the ICJ was requested to give its Advisory Opinion on the following question: "Is the threat or use of nuclear weapons in any circumstance permitted under international law?"[106] The ICJ in its opinion, stated as follow:

> The Court recognizes that the environment is under daily threat and that the use of nuclear weapons could constitute a catastrophe for the environment. The Court also recognizes that the 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… States must take environmental considerations into account when assessing what is necessary and proportionate in the pursuit of legitimate military objectives. Respect for the environment is one of the elements that go to assessing whether an action is in conformity with the principles of necessity and proportionality. This approach is supported, indeed, by the terms of Principle 24 of the Rio Declaration, which provides that: 'Warfare is inherently destructive of sustainable development. States shall therefore respect international law providing protection for the environment in times of armed conflict and cooperate in its further development, as necessary.[107]

The ICJ in *Pulp Mills on the River Uruguay (Argentina v. Uruguay) (Interim Measures) case (2006),* emphasized the importance of the need to ensure environmental protection of shared natural resources, while allowing for sustainable economic development.[108] The ICJ further stated that there is now a responsibility under general international law for States "to undertake an environmental impact assessment where it is a risk that the proposed industrial activities may have a significant adverse impact in a trans-boundary context, in particular, on a shared resource." The Court additional noted, though, that general international law did not "specify the scope and content of an environmental impact assessment.[109]

[105]M. Montini, 'The Role of Legal Principles for Environmental Management' in Corrado Clini, Ignazio Musa & Lodovica Gullino (Eds), *Sustainable Development and Environmental Management* (Springer, 2008) p.27; See O. McIntyre, 'Environmental Protection of International Rivers, Case Analysis of the ICJ Judgment in the Case concerning the Gabcikovo-Nagymaros Project (Hungary/Slovakia)' (1998) 10 *Journal of Environmental Law*, p.87.
[106]Owada (Note 46) p.18; *Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, I.C.J. Reports* 1996 *(I),* 228.
[107]*Ibid*, p.19.
[108]*Ibid*, p.27; *Pulp Mills on the River Uruguay (Argentina v. Uruguay), Provisional Measures, Order of 13 July 2006.*
[109]Weiss (Note 6) p.23; *Pulp Mills on the River Uruguay (Argentina/Uruguay), I.C.J. Reports 2010,* para. 204.

Several pronouncements of the ICJ given so far, in a context of environmental issues have had considerable impact upon the development of the law relating to environment, inasmuch as they amount to pronouncements of general law applicable to IEL. Thus, it is fair to say that the ICJ, through the process of settling a bilateral dispute concerning environmental issues between States, can contribute to identifying and confirming the points of law that pertain to IEL as a significant component of the public order of the global community. Further, the ICJ contributes to the development of IEL through its capacity to make pronouncements which are of general application as an enunciation of principles of international law, which as such would be applicable to international environmental issues. As such, even in the absence of a concrete dispute between States, the Court through such advisory proceedings can function as a quasi-administrative Court delegated with the task of pronouncing a principle of law concerned with consolidating public order of international society in the field IEL.[110]

The rise of environmental consciousness in international law has been accompanied by another phenomenon: the growing number of international fora within which environmentally associated disputes can now be dealt with. It used to be the case that the ICJ was just about the only permanent international tribunal around. Since it was established in 1946 it has been joined by a large number of other international judicial and quasi-judicial bodies such as: the dispute settlement mechanisms established under the 1982 United Nations Convention on the law of the Sea, such as the International Tribunal for the Law of the Sea and Annex VII arbitral tribunals; the Dispute Settlement Understanding established under the Agreement of the World Trade Organization, which sets up a panel and appellate body structure with competence to deal with environmental issues in their international trade context; the different international human rights courts, for example, the European Court of Human Rights and the American Court of Human Rights, which often deal with environmental issues in their human rights context; the International Centre for the Settlement of Investment Disputes, which is presently beginning to be faced with environmental issues in a foreign investment context;[111] the World Bank Inspection Panel, which now has a distinguished jurisprudence considering environmental and other issues in so far as they relate to the activities of the World Bank, in addition to the non-compliance mechanisms established under different multilateral environmental agreements.[112]

Each of the bodies mentioned above has been faced with an increasing caseload. Amongst that caseload are several cases dealing with, or touching upon, environmental issues. In that regard, several decisions in the past decade are notable for having contributed to the development of IEL, by identifying and then applying different rules, and in addition by clarifying their meaning and impacts and relationship with other rules of international law arising outside the environmental domain.[113]

The Teachings of the Most Highly Qualified Publicists of Various Nations

The teachings and writings of the most highly qualified publicists in international law are regarded an additional subsidiary source of international law. Learned writings of scientific and professional associations and of eminent lawyers are important sources of IEL.[114] These

[110]Owada (Note 46) pp.28, 30-31.
[111]Sands (Note 26) p.5.
[112]*Ibid*.
[113]*Ibid*, pp.5-6.
[114]WWF-India & MoEF-India (Note 1) pp.9-10.

teachings and writings of eminent jurists provide a material source for identifying the law. International bodies such as the International Law Commission of the United Nations and national institutes and professional organizations may study and publish authoritative restatements or commentaries on aspects of the law.[115] For example, the Helsinki Rules on Waters of International Rivers which have been developed by International Law Association are considered as highly authoritative.[116] Many international law journals publish articles by eminent lawyers addressing a great range of issues pertaining to all aspects of international law.[117]

However, the importance attached to the juristic opinions and critical analyses by academics depends on the prestige of the author and the degree to which the author's opinions withstand the test of time. Such writers, referred to by the ICJ statute as writers 'of various nations', rise above national, racial and other subjective or prejudicial considerations. They are guided by objective reasoning and analyses. Based on these selection criteria, "the teachings and writings of the most highly qualified publicists in international law" include writers who stand out as the supreme authorities and determine the scope, form and content of international law and who have continued to exert remarkable impact on the evolution of some aspects of international law.[118] Early writers include Grotius, Vattel, Gentile, Pufendorf, amongst others. Other writers whose general works on international law are referred to as classics include Oppenhein and Rousseaus.[119]

Non-Legally Binding Soft Law Instruments

Article 38 of the Statute of the ICJ is not intended to provide a full list of sources of international law, likewise with IEL. There are other likely sources which the ICJ might rely on to aid in its deliberations, such as acts of international or regional organizations, resolutions of the United Nations Security Council and the United Nations General Assembly, and Regulations, Decisions and Directives of the European Union, among others. Furthermore, decisions of the Conference of the Parties, or Declarations or Statement, may contribute to the development of IEL.[120]

States usually place normative statements and agreements in non-legally binding or political instruments like noted above. Those instruments, frequently referred to as 'soft law' may make it easier to press dissenters into conforming behaviour, since states are free to use political pressure to influence others to alter their policies, even though generally they cannot demand that others conform to similar legal norms. These non-binding commitments may clarify the reflections of the will of the international community to resolve a pressing global environmental problem over the objections of one or a few states causing the problem, while avoiding the 'doctrinal barrier' of their lack of consent to be bound by the norm.[121]

[115]Shelton & Kiss (Note 16) p.17.
[116]WWF-India & MoEF-India (Note 1) pp.9-10.
[117]Robinson & Kurukulasuriya (Note 80) p.9; Singh (Note 11) p.11.
[118]Godwell Nhamo & Ekpe Inyang, *Framework and Tools for Environmental Management in Africa* (Dakar, Council for the Development of Social Science Research in Africa (CODESRIA), 2011) p.31.
[119]Atsegbua, Akpotaire & Folarin Dimowo, p.334.
[120]Singh (Note 11) p.11.
[121]*Ibid*.

Further, Non-binding instruments have as well been very influential in the development of IEL. Although, they are technically not 'law', soft law has played an important role in IEL. First, some of the most influential developments that have shaped IEL have been the outcome of non-binding instruments like the Stockholm Declaration of 1972 and the Rio Declaration of 1992. Second, soft law instruments have played a vital role in concretising some of the key principles of IEL such as state responsibility for transboundary environmental harm. Third, soft laws form a starting point for the development of hard law. Several environmental soft law instruments have played a fundamental role in the development of legally binding international environmental treaties. For example, 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 United Nations Convention on the Non-Navigational Uses of International Watercourses, 1997.[122]

CONCLUSION

This paper has been able to establish that IEL is an emerging field of international law and consist of those substantive, procedural and institutional rules of international law which have as their principal aim the protection of the environment principally by means of bilateral and multilateral international agreements. Also, the paper has brought to light the fact that IEL developed in the last few decades due to the prevalent global concern and awareness about the increasing environmental challenges and the need for global action to protect the environment. It is also obvious that environmental problems extend beyond national boundaries and poses grave challenges to the wellbeing of the planet and survival of humanity, thus, the need for international standards, norms and rules, in the form of international environmental law, to protect the global environment.

Further, the paper established that IEL passed through two major phases of development. Firstly, is the early development of IEL through Conventions which focused on specific issues, such as, the conservation of wildlife and the protection of rivers and seas. This period was also marked by the emergence of some key IEL principles from international arbitration such as, the *1893 Pacific Fur Seal Arbitration Case (Great Britain v. United States)*, the *1941 Trail Smelter Case (United States v. Canada)* and the *1957 Lac Lanoux Arbitration Case (France v. Spain)*. Secondly, is the development of modern IEL through international conferences, adoptions, resolutions, etc, by the United Nations General Assembly (UNGA). For example, modern IEL developed through among others, the 1972 United Nations Conference on the Human Environment (the Stockholm Conference), the adoption of the World Commission on Environment and Development in 1983 by the UNGA, the adoption of the World Charter for Nature by the UNGA in 1982, the 1992 United Nations Conference on Environment and Development (the Rio Conference), the launch of the Earth Charter at the Hague in 2000, the 2002 Johannesburg World Summit on Sustainable Development, the 2012 United Nations Conference on Sustainable Development (Rio+20).

The paper further discussed in details the sources of IEL and established that in theory, the sources of IEL are the same as those of general international law. The paper brought to light that the most widely recognized sources of international law, and thus, IEL, as contained in

[122]Environmental Law: Introduction to International Environmental Law (Note 54) p.6.

Article 38(1) of the *Statute of the International Court of Justice* are international conventions (treaties), whether general or particular, establishing rules clearly recognized by the contesting states, international custom, as evidence of a general practice accepted as law, the general principles of law recognized by civilized nations and judicial decisions and the teachings of the most highly qualified publicists of various nations, as subsidiary means for the determination of rules of law. The paper further identified non-binding soft law instruments as another source of IEL.