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Principles of International Environmental Law

Abbas Poorhashemi

President of the Canadian Institute for International Law Expertise (CIFILE), Toronto, Canada

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ABSTRACT

Principles of international environmental law play a fundamental role in developing and consolidating international protection of the environment. Understanding current and growing principles of international environmental law can guide the interpretation of legal norms and regulations in this field. Moreover, these principles are included in several international treaties and national regulations to protect the environment. Some principles originated from public international law, such as State Sovereignty or International Cooperation. Still, others are related exclusively to international environmental law, such as the principle of prevention and the Precautionary principle.

This article provides essential knowledge about the Principles of International Environmental Law. These principles reflect the legal foundations and play a crucial role in the creation, development and application of this field of law. By definition, they are superior to ordinary rules, which should be based on these principles. Finally, results are discussed regarding applying these principles and their implementation at national and international levels.

Introduction

Today, almost all binding and non-binding international environmental documents include and refer to these principles. In addition, some of these principles are common between public international law and environmental law. However, some directly deal with environmental law, such as the precautionary principle, prevention principle, etc.

Finally, it is essential to note that in compiling and developing international environmental law, like other branches of law, some principles have been formed that can be considered the main pillars and fundamental principles of international law.

These principles have not only played a significant role in the process of creating and developing international environmental law but also in the process of implementing and interpreting environmental treaties and resolving disputes between States in environmental matters.

In general, the basic principles of international environmental law can be divided into two categories:

The first category is general principles of international law, including the principle of governance, cooperation and notification;

The second category is exclusive principles of international environmental law, including prevention, precaution, participation, environmental protection, Environmental Impact Assessment and sustainable development.

These principles aim to bind States to protect the environment at the national level and cooperate with other States and international organizations at the global level.

Principle of State Sovereignty

Sovereignty is one of the main principles of international law. Before this principle entered the field of international environmental law, it existed in the domestic law of many countries, and this principle is actually in public international law. Nevertheless, it has significant traditional roots. Sovereignty is the main element of the government, which, like other legal concepts, has undergone various changes. In the second half of the 20th century and the early years of the 21st century, we witnessed significant developments in the concept of Sovereignty, such as the establishment of international organizations such as the United Nations, human rights mechanisms, humanitarian intervention and environmental protection which changed the idea of "governance". [1]

In international environmental law, one of the most important legal sources of the "principle of sovereignty" is the 1941 decision of the dispute between Canada and the United States in the Trail Smelter case[2], which stated the States' obligation not to cause transboundary harm.

Article 21 of the Stockholm Declaration of 1972 states: "*States have the sovereign right*

[1] C.Nouzha, *Réflexion sur la contribution de la Cour Internationale de justice à la protection des ressources naturelles*, RJE, 2000, vol. 3, P.391-420. M. Perrin de Brichambaut, *Les avis consultatifs de la CIJ sur la licéité des armes nucléaires*, AFDI, 1996, P.315.

[2] Trail smelter case (United States, Canada), 16 April 1938 and 11 March 1941, United Nations, VOLUME III pp. 1905-1982, https://legal.un.org/riaa/cases/vol_III/1905-1982.pdf

to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction."[3]

Generally, the Sovereignty of a State has two bases. One is to recognize the Sovereignty of states in using their natural resources, and the other is not to cause harm to other lands under the rule of other states or areas that are not under their control, such as the high sea. The turning point of the principle of Sovereignty is in Article 21 of the Stockholm Declaration of 1972, which, with a slight change, is contained in the second principle of the Rio Declaration of 1992, which stipulates: "*States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.*[4]

In classical international law, the concept of state sovereignty[5] is its independence and equality with other states, and the rule of distinguishing the State from non-state communities is the absolute Sovereignty of the State; In the sense that the government's power is supreme, unlimited and non-submissive. From this point of view, Sovereignty includes both internal and external dimensions, so the government should have absolute power, Sovereignty and political stability throughout the country's inner territory. However, it should be able to fulfill the country's international obligations. It means that the government should be able to manage the country without the interference of external factors and enjoy independence and freedom of action in its foreign relations, and not be forced to obey others. As a result, the need for mutual respect of states for each other's independence and Sovereignty is essential.

[3] Declaration of the United Nations Conference on the Human Environment, Stockholm 1972, https://documents-dds-ny.un.org/doc/UNDOC/GEN/NL7/300/05/IMG/NL730005.pdf?OpenElement

[4] Declaration of the United Nations Conference on Environment and Development, Rio de Janeiro, Brazil, 3-14 June 1992, https://www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/A_CONF.151_26_Vol.I_Declaration.pdf

[5] J.-D. Mouton, Retour sur l'Etat souverain à l'aube du XXIe siècle, in : Etat, société et pouvoir à l'aube du XXIe siècle, Mélanges en l'honneur de François Borella, Presses Universitaires de Nancy, 1999, P.¬319-334.

It is essential to note that with the development of public international law, State Sovereignty was reduced by the creation of international organizations. In some cases, the States accepted some restrictions on their Sovereignty to benefit the international order. Since the 20th century, the international community has recognized a set of international rules, such as human rights, environmental rights and other international regulations that limit the Sovereignty of states.

In this context, the absolute and unquestioned Sovereignty of States has given its place to the principle of non-harm in the second period and the "rational and reasonable use of land" in the current international environmental law.

With its different concepts, the principle of Sovereignty has been recognized in many sources of international environmental law. In this regard, Article 2 (3) of the 1971 Convention on Wetlands of International Importance, especially as Waterfowl Habitat, Ramsar and Article 2 of the 1985 Vienna Convention for the Protection of the Ozone Layer, are significant.

Article 4 (12) of the 1989 Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal indicate clearly that:

"*Nothing in this Convention shall affect in any way the sovereignty of States over their territorial sea established in accordance with international law, and the sovereign rights and the jurisdiction which States have in their exclusive economic zones and their continental shelves in accordance with international law, and the exercise by ships and aircraft of all States of navigational rights and freedoms as provided for in international law and as reflected in relevant international instruments*." [6]

The development of the concept of Sovereignty is followed by Article 2 (1 C) of the 1992 Helsinki Convention on the Protection and Use of Transboundary Watercourses and International Lakes states that: "*To ensure that transboundary waters are used in a reasonable and equitable way, taking into particular account their transboundary character, in the case of activities which cause or are likely to cause transboundary impact*."[7]

[6] Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, 1989, https://www.basel.int/Portals/4/Basel%20Convention/docs/text/BaselConventionText-e.pdf

[7] Helsinki Convention on the Protection and Use of Transboundary Watercourses and International Lakes,

Moreover, Article 5 of the 1997 Convention on the law of non-navigational uses of international watercourses affirms that States in their respective territories utilize an international watercourse equitable and reasonable manner.

As a result, states are legally obligated not to use harmful shared environments but are also required to use their territory equitably and reasonably.

International Cooperation Principle

The principle of cooperation is rooted in customary international obligation and is one of the integral principles of the current international law. This principle is based on the fact that the environment does not have borders. However, environmental pollutions and degradations are transboundary; therefore, protecting the environment and dealing with environmental challenges is beyond one or more states' power and requires the cooperation of the international community.

Unlike public international law, environmental law does not rely on principles and rules based on mutual relations. The root of this principle is in customary law and *Erga Omnes* regulations.

1992, https://unece.org/DAM/env/water/pdf/watercon.pdf

It emerged as one of the binding principles of general international law, especially after the First and Second World Wars. As a result, States decided to engage in international cooperation instead of hostilities and rivalities. Based on this principle, states must cooperate in good faith to protect the environment in all circumstances.[8]

The principle of cooperation is in various fields, including information exchange, technology transfer, financial resources, training courses, and conferences.

Since international cooperation is a critical principle in environmental protection, this principle is included in several global or regional environmental treaties. Moreover, this principle is the source of obligations in many conventions. For instance, Article 197 of the 1982 Convention on the Law of the Sea emphasizes that States protect the marine environment globally and, if necessary, regionally, directly or through competent organizations. Therefore, States and international organizations will

[8] S.A.Poorhashemi, B.Khoshmaneshzadeh, M.-Soltanieh & D.H.Bavand, *Analyzing the individual and social rights condition of climate refugees from the international environmental law perspective*, International Journal of Environmental Science and Technology, ISSN 1735-1472, Int. J. Environ. Sci. Technol, DOI 10.1007/s13762-011-0017-3, January 2012, Volume 9, Issue1, P.57-67.

cooperate to establish and compile the rules, standards and recommended international methods and procedures following this convention or considering the region's characteristics.

Convention on the Control of Transboundary Transfer of Harmful Wastes and Their Disposal in 1980 stipulates that the convention members must cooperate to improve and properly manage hazardous wastes and other types of wastes from the biological point of view.

United Nations Convention on Climate Change (Climate Change), New York, 1992, reaffirmed the principle of Sovereignty of States in international cooperation to address climate change. The Convention, in its preamble, recognized that the global nature of climate change calls for the most comprehensive collaboration by all States. It is also primordial that their participation in an effective and appropriate international response, under their common but differentiated responsibilities and respective capabilities and their social and economic conditions.[9]

According to Article 5 of the Convention on Biological Diversity, Rio de Janeiro, 1992, under the title of "cooperation" each member State should cooperate to preserve and protect biodiversity. Article 7 of the International Convention on Oil Pollution Preparedness, Response and Cooperation (OPRC) London, 1990, refers to international cooperation to deal with pollution. Article 4 of the United Nations Convention for Eradication of Desertification in Countries Seriously Facing Drought or Desertification, Paris, 1994, under general obligations, emphasized that the members should cooperate with the affected countries.

This Convention obligates contracting parties to cooperate with the international community to ensure the improvement of a global environment for implementing the convention's provisions. This cooperation should cover the fields of technology transfer, scientific research and development, collection and distribution of information and financial resources. Furthermore, article 6 of the 2003 Tehran Framework Convention for the protection of the marine environment of the Caspian Sea[10] obliges

[9] UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE. https://unfccc.int/files/essential_background/background_publications_htmlpdf/application/pdf/conveng.pdf

[10] "Russian Federation : IMO Focus on Technical Cooperation." MENA Report, Albawaba (London) Ltd., 28 Sept. 2021.

border States to cooperate for the environmental protection of the Caspian Sea.

The principle of cooperation regarding environmental protection has been institutionalized at regional and global levels. The existence of institutions and organizational arrangements may have been established before the emergence of international environmental law. Moreover, some environmental challenges cannot be solved by adopting a simple method through regulations. In this regard, improving the level of cooperation between the relevant countries is necessary, which can only be developed by establishing permanent organizations. In addition, in the general commitment of the members of the United Nations, especially when there is a need for cooperation to protect the environment, States and international organizations cooperate at a reasonable level.[11]

Considering its characteristics, the principle of cooperation can have close connections with most of the basic principles and concepts of international environmental law. But with some of them, it has more connection and alignment; with some, it is not like this. For example, the principle of environmental protection is closely related to the cooperation principle.

The principle of Sovereignty has reached from the concept of "absolute Sovereignty" in the past to the "rational and reasonable use of the land" at present. Although the international community has not yet been institutionalized, in terms of organization, this society lacks the concentration of power without hierarchy and a unique constitution.

Since the environment has no boundaries and all States have a shared responsibility to protect the global environment, the commitment to international cooperation includes a wide range of cooperation, from providing the necessary resources and technology and holding training courses to exchanging information and consultation, helping during environmental emergencies. Because dealing with ecological problems is beyond one or more states' power and requires international cooperation to care for, prevent, reduce and eliminate the harmful effects of environmental pollution and destruction.

[11] La Résolution 2997 (XXVII) du 15 décembre 1972 sur « *Dispositions institutionnelles et financières oncernant la coopération internationale dans le domaine de l'environnement* », doc. NU, A/8730, 1973, P.47. Reproduit in: L. Boisson de Chazournes, R. Desgagné et C. Romano, Protection internationale de l'environnement, Recueil d'instruments juridiques Paris, Pedone, 1998, P.53 et s.

Principle of environmental protection

Another basic principle in international environmental law is an obligation to protect the environment. This principle will be of great importance in developing international environmental law in the future. Furthermore, states are obliged to avoid harming their environment based on the principle of environmental protection, which is considered in international treaties, organizations' statutes, many statements, and international conferences. This principle not only affirms the duty of the States to protect the environment but also emphasizes the ways of its practical realization, which is the adoption of precautionary and preventive measures.

The environmental protection principle is included in many legal instruments, such as international treaties. For example, paragraph 6 of Article 2 of the 1971 Ramsar Convention mentions the responsibility of the contracting parties for the preservation, protection, care and proper exploitation of migratory waterfowl. The Convention for the prevention of marine pollution caused by the disposal and discharge of waste materials and other materials, London 1972, also mentions the creation of non-governmental organizations to protect the marine environment. It has also stipulated that the contracting members have common interests in protecting the marine environment in a particular geographical area. The Convention on International Trade in Endangered Species of Wild Fauna and Flora, Washington, 1973 is another instrument to protect endangered plant and animal species and the obligation of contracting parties to protect them.

The Convention on the Conservation of Migratory Species of Wild Animals, Bonn 1979 also refers to the protection of migratory species whose status is inappropriate at any time and any place that is possible and suitable and stipulates to achieve the goals of the convention.

Article 192 of the 1982 Convention on the Law of the Sea obliges contracting states to protect the marine environment. Furthermore, Article 4 (11) of the Basel 1980 Convention on the Control of Transboundary Transfers of Hazardous Wastes and their Disposal declares that nothing in this convention should prevent the Member State from implementing other regulations to the provisions of the Convention.

The 1992 Convention on Biological Diversity also requires the adoption of national strategies, plans and programs for the protection and sustainable use of the biodiversity of each member State against that country's specific conditions and capabilities and requires them to protect and use sustainable biodiversity as much as possible and as appropriate in plans, programs, sector policies and consider the relevant intermediate section.

Also, some regional binding documents have mentioned the principle of environmental protection. For instance, the 1978 Kuwait Regional Convention for Cooperation on the Protection of the Marine Environment from Marine Pollution (Kuwait Convention)[12] stated that the Member States should protect the marine area with the awareness of the importance of cooperation and coordination of actions based on regional policies and to protect the marine environment.

One of the Soft Law documents that emphasized the principle of environmental protection is the Declaration of the Stockholm Conference in 1972, which stated in the preamble that protecting the human environment and improving it is an important issue affecting people's well-being development. Also, the principle is affirmed by the 1992 Rio Declaration. Therefore, to protect the global environment, States should use protective and preventive measures and standards based on their capabilities and comprehensively preserve the environment.

Finally, the 2030 Agenda for Sustainable Development was adopted at the United Nations Sustainable Development Summit on September 25, 2015, and encouraged all member states to develop national responses to the overall implementation of the Agenda for Sustainable Development. According to this Agenda, these national responses can support the transition to the SDGs and build on existing planning instruments, such as national development and sustainable development strategies, as appropriate.[13]

Principle of notification and information

One of the other essential principles of international environmental law is the principle of notification and information.

[12] Kuwait Regional Convention for Co-operation on the Protection of the Marine Environment from Pollution, Kuwait, 1978. https://digitallibrary.un.org/record/93831

[13] 2030 Agenda for Sustainable Development, United Nations Sustainable Development Summit, 2015, https://sdgs.un.org/2030agenda

This principle can be found for the first time in the International Court of Justice judgment concerning Corfu Channel (United Kingdom and Northern Ireland v. Albania) in 1949. In this case, the ICJ decided that the Albanian government was obliged to inform the captain of the British ship about the presence of mines in Albanian territorial waters. This principle is interpreted and defined as such, if a State becomes aware of a danger that may put other governments in an emergency situation, it is obliged to inform other States of that danger. In other words, the principle obliges States to provide notification and information about the risks that may affect other countries' environments.

In this sense, the principle of notification and information about nuclear accidents is significant worldwide. Following the former Soviet authorities' neglect to inform about the April 26, 1986 incident at the Chornobyl Nuclear Power Plant, the importance of this principle became more apparent. This lack of attention resulted in a global reaction. A special convention was approved based on the previous warning about nuclear accidents or dangers caused by nuclear materials, which was concluded only five months after the said accident. And in an unprecedented procedure, it came into force about a month later. Apart from emergencies, States should also identify the effects of activities on the environment within their jurisdiction and inform other countries, even if non-governmental organizations carry out these activities.

Principle 18 of the 1992 Rio Declaration formulates this principle in the manner that States must immediately inform other states of natural disasters and other emergencies that appear to have adverse effects on the environment of these countries.

The principle of notification and information in environmental crises and other issues related to each environmental component has emerged as a definite and explicit obligation in numerous international treaties.

The 1971 Ramsar Convention on Wetlands of International Importance encourages the contracting parties to research and exchange information on wetlands and the matters listed in the convention. Articles 4 and 5 of the 1973 Convention on International Trade in Endangered Species of Wild Fauna and Flora make the export and import of the species under the Convention subject to special regulations for exchanging information and issuing licenses by the importing and exporting countries. The International Convention for the Prevention

of Pollution from Ships, MARPOL 1973[14], obliges the contracting parties to inform the other members of the full details of the accident, the measures that should be taken, and any other country that may be affected. Also, the protocol related to the MARPOL International Convention for the Prevention of Pollution from Ships in 1978 requires the members to exchange information. The Vienna Convention for the Protection of the Ozone Layer in 1985 and the Montreal Protocol on Substances that Deplete the Ozone Layer in 1987 also oblige their member states to inform the contracting parties in case of emergencies or risks. According to the Montreal Protocol, the members are obliged to publish the list of production and consumption of substances under the control of the protocol in their country every year and submit it to the secretariat of the protocol at a specific time every year.

The 1980 Basel Convention on the Control of Transboundary Transfers of Hazardous Wastes and their Disposal has created a comprehensive and carefully defined system for transferring the hazardous waste from one country to another through a country or third country. The basis of this system is the exchange of necessary declarations and permits between countries based on the exchange of information and transparent forecasts and issuance of permits.

Convention on Environmental Impact Assessment in a Transboundary Context, Espoo 1991, in its appendix, gives a description of the amount of information that must be transmitted to the members. The 1992 Convention on Biodiversity also obliges contracting parties to exchange information regarding biodiversity protection and sustainable use. This information should include the results of technical, scientific, and economic-social research, as well as information related to the study and educational programs, specialized knowledge, and indigenous and traditional knowledge.

Article 4 of the 1992 United Nations Framework Convention on Climate Change obliges the contracting parties to regularly publish and make available to the public the list of emissions and absorption of greenhouse gases in their territory.[15]

[14] International Convention for the Prevention of Pollution from Ships .... https://www.imo.org/en/About/Conventions/Pages/International-Convention-for-the-Prevention-of-Pollution-from-Ships-(MARPOL).aspx

[15] H. Ruiz Fabri, *Règles coutumières générales et droit international fluvial*, AFDI, 1990, p.839.

In addition to the above-mentioned international treaties, the principle of notification and information is also mentioned in several soft law instruments, including statements, declarations and United Nations resolutions.

Despite the fact that the principle of notification and information existed before the establishment of international environmental law in relations between national States, it did not include environmental issues.

Principle of prevention

Prevention of environmental damage is considered a golden rule. The extinction of a plant or animal species, soil erosion, loss of human life, and the leakage of persistent pollutants in the sea create a situation which can not be restored or compensated. The wide variety of legal documents makes the concept of prevention complex and complicated. Therefore, it is appropriate to mention this concept as a significant achievement that has led to the formation and growth of a large number of legal mechanisms such as environmental risk assessment, licensing or authorization.

The principle of prevention in international environmental law is to prevent environmental damages before they occur. This principle is based on evaluating ongoing activities and controlling and monitoring the environmental situation. Environmental damage assessment methods are also based on the principle of prevention. It can prevent the continuation of the project process or require it to follow the relevant standards and restrictions.

It is also important that society and public opinion participate in intervening in such cases to show their concerns or opposition to some projects. Also, conducting scientific analyses on new projects is considered a kind of application of the prevention principle.

This principle aims to prevent damage or control and limit its effects on the environment. It is included in many international treaties and documents with different legal natures. The main reasons for applying this principle are the impossibility of accurate assessment and estimation of environmental damage, the measure of related compensation, and the low probability of repairing or restoring said damages.

In 1972, the General Assembly of the United Nations recognized the importance of having activities at the national judicial level

to prevent significant damage to neighbouring areas' environment. In the regional dimension, the Final Act of the Conference on Security and Cooperation in Europe in Helsinki in 1975 stipulates that the best way to prevent environmental damage is to use preventive methods.[16]

Article 1 of the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, London 1972,[17] stipulates that the contracting parties must individually or collectively effectively control and prevent all sources of marine environmental pollution. According to this Convention, the Member States should use all possible practical methods for prevention to avoid the pollution of the seas by disposing of waste materials and other materials that pose a risk to human health and endanger the biological resources and life of the waters.

The Convention for the Prevention of Pollution from Ships, 1973, and the Protocol of 1978 (MARPOL 73/78) require contracting parties to comply with the provisions of the convention and its related annexes to prevent to implement the pollution of the marine environment caused by the discharge of harmful substances or compounds containing such substances that violate this convention.

Article 204 of the 1982 Convention on the Law of the Sea requires States to observe, measure, evaluate and analyze, by recognized scientific methods, the risks or effects of marine environment pollution.[18] States shall monitor the results of any activities they permit or engage in to determine whether these activities are likely to pollute the marine environment. According to the Convention, when States have logical reasons that the activities planned under their authority and supervision cause marine environment pollution or fundamental changes and damage, they should evaluate their potential environmental effects.

[16] Final Act of the Conference on Security and Cooperation in Europe, (Helsinki, 1 August 1975), OSCE. Documents 1973 - 1997. [CD-ROM]. [Vienna]: Organization for Security and Co-operation in Europe, [s.d.]. https://www.cvce.eu/en/obj/final_act_of_the_conference_on_security_and_cooperation_in_europe_helsinki_1_august_1975-en-26511c7f-1063-4ae9-83e5-16859194a144.html

[17] Convention for the Protection of the Marine Environment and the Coastal .... https://wedocs.unep.org/bitstream/handle/20.500.11822/31970/bcp2019_web_eng.pdf

[18] United Nations Convention on the Law of the Sea of 10 December 1982, https://www.un.org/depts/los/convention_agreements/texts/unclos/UNCLOS-TOC.htm

Article 7 (1) of the Framework Convention for the Protection of the Environment of the Caspian Sea, Tehran 2003, stipulates that the contracting parties shall take all appropriate measures to prevent, reduce and control the pollution arising from deferents sources of the Caspian Sea. Furthermore, article 9 of this convention requires that the contracting parties take the necessary measures to prevent, prevent, reduce and control the pollution of the Caspian Sea caused by the discharge of waste materials from vessels.

Finally, prevention is always better than cure and preventing environmental damage is much cheaper, more accessible and less dangerous than when we seek solutions for damage.

Principle 6 of the Stockholm Declaration of 1972 affirms that the discharge of toxic substances or other substances and heat to the extent or concentration that exceeds the allowed capacity of the environment must be stopped to ensure irreversible damage to the ecosystem. Also, principle 7 declares that States must prevent the pollution of the seas with substances that may be dangerous for human health and harm the resources of marine organisms or destroy their facilities.

The 19th principle of the 1982 World Charter for Nature confirms that States should closely monitor the status of natural processes, ecosystems and species to enable early detection of degradation or threat, ensure timely intervention and facilitate the evaluation of conservation policies and methods. [19] Furthermore, the 1992 Rio Declaration on Environment and Development (principle 17) emphasizes that States should implement environmental impact assessment as a national instrument. The evaluation shall be undertaken for proposed activities that are likely to have a significant adverse impact on the environment and are subject to a decision of a competent national authority[20].

Precautionary principle

Precaution is necessary to protect the environment and has become one of the most common concepts of international environmental law. Nevertheless, this principle does not have a clear legal status due to its concept's lack of legal basis and ambiguity in its exact meaning. [21] For this

[19] World Charter for Nature, Adopted by the General Assembly in its Resolution 37/7 of 10 October 1982, http://www.un-documents.net/wcn.htm

[20] Annex I RIO DECLARATION ON ENVIRONMENT AND DEVELOPMENT , https://www.oas.org/usde/FIDA/documents/pdf/rioeng.pdf

[21] M. Dias Varella, *Différences d'interprétation sur un même sujet : le principe de précaution, la CIJ, l'OMC et la CJCE*, Revue européenne de droit de l'environnement, n° 1/2004, juin 2004, P. 23-25. H. Ruiz Fabri, *La prise en compte du principe de*

reason, it has become one of the most controversial principles due to the concern about its misuse for commercial purposes. States should take extensive precautionary and preventive measures to protect the environment according to their power and ability. In cases where there is a risk of causing severe or irreparable damage to the environment, lack of sufficient certainty and definite scientific reasons should not be insisted upon to postpone actions necessary to prevent the destruction of the environment.

In fact, this principle is one of the most important initiatives of the 1992 Rio Declaration. Principle 15 contained the precautionary approach to protecting the environment. In its current form, the "Precautionary Principle" has been applied in most international legal instruments related to environmental protection since 1990. Many interpretations of this principle include the precautionary approach, empirical caution in cases of scientific uncertainty and caution with prior notice. However, the essential characteristics of the precautionary principle are based on the necessity of predicting danger before it happens and creating a duty to prevent or reduce the risk, even in cases where the lack of definite scientific reasons makes it difficult to predict.

When there is no proof or undeniable reason for environmental damage, the precautionary principle applies to being careful and preparing for potential, uncertain or even hypothetical threats. The precautionary principle will be considered when the prevention principle has not yet been involved in the specific environmental project.

In case there is a possibility of environmental damage and large-scale environmental degradation, it is necessary to implement the precautionary principle. In other words, the application of this principle is in the unpredictability of the effects of human activities on the environment and human health.

The precautionary principle has been recognized in several international environmental treaties. For example, article 3 of the 1992 Climate Change Convention stipulates that members must take preventive measures to forecast, prevent and minimize the causes of climate change and reduce its adverse effects. According to this Article, where there are threats of serious or irreversible damage, lack of complete

précaution par l'OMC, RJE, 2000, (n° spécial sur le principe de précaution).

scientific certainty should not be used as a reason for postponing such measures. In addition, states are considering that policies and measures to deal with climate change should be cost-effective to ensure global benefits at the lowest possible cost.

The Cartagena Protocol on Biosafety to the Convention on Biological Diversity in 2000, also in Article 1, requires States to apply the precautionary approach. According to the Article, this approach is critical for adequate protection in the safe transfer, handling and use of living-modified organisms resulting from modern biotechnology that may adversely affect the conservation and sustainable use of biological diversity.[22] So this protocol is formed based on the application of the precautionary principle.[23]

Article 1 of the 2001 Stockholm Convention on Persistent Organic Pollutants[24] explicitly refers to the 15th principle of Rio. It affirms that the basis for creating this convention is based on the precautionary principle. Furthermore, it insists on the contracting parties' obligation to the precautionary principle in case of severe threat or irreparable environmental damage.

As mentioned earlier, there are two different interpretations of "precaution" in international regulations, which have been crystallized in the "precautionary approach" and "precautionary principle". This issue is caused by the term "precautionary approach" in the 15th principle of the Rio Declaration, which has caused controversy. Still, the prevailing opinion of the scholars is that the precautionary approach of the 15th principle of the Rio Declaration has brought about the emergence of the precautionary principle. Consequently, many international treaties have recognized it as a principle.

Polluter pays principle

The "Polluter pays" principle is based on the States international responsibility for environmental damage and its compensation. The "polluter pays principle" is one of the basic principles of international environmental law. However, this responsibility depends on the transboundary nature of many harmful environmental effects, which are the origin of the impact on

[22] Cartagena Protocol on Biosafety to the Convention on Biological Diversity, 2000, https://wedocs.unep.org/handle/20.500.11822/27553

[23] Nicolas de Sadeleer, *Le statut du principe de précaution en droit international*, in M.Pâques et M. Faure, *La protection de l'environnement au cœur du système juridique international et du droit interne: acteurs, valeurs et efficacité*, Bruxelles, Bruylant, 2003, P.383.

[24] Stockholm Convention on Persistent Organic Pollutants , Stockholm, 22 May 2001, https://treaties.un.org/Pages/ViewDetails.aspx?src=IND&mtdsg_no=XXVII-15&chapter=27

international society. This principle recognizes the right of others to enjoy a healthy environment. On the other hand, it is a kind of preventive measure to prevent pollution and destruction of the environment.

In recent years, the "polluter pays" principle has become a slogan in international environmental law discussions. The central concept is that if you pollute a place, it is your responsibility to clean it. According to its general direction, the purpose of this principle is that the perpetrator of a dangerous activity that has caused damage to the environment must compensate for the result of this action.

At first glance, this principle was created with the idea of prevention. Its purpose was that the polluter should bear the "cost of preventive measures and fight against pollution" and pay subsidies in this field.

The 16th principle of the 1992 Rio Declaration reminds us of this principle, emphasizing the public interest and pointing out that the polluter of the environment must pay the costs of its removal.

At the same time, it can be said that this principle is located at the intersection of prevention and compensation. This matter corresponds almost to the idea that "prevention" in international environmental law has a broad meaning. It appears to be a very close relationship between the "polluter pays" principle and the prevention principle.[25]

It is important to note that the polluting State is responsible for paying the pollution costs. In addition, the international community has the duties of carrying out preventive measures, informing and evaluating, and establishing national laws regarding the liability arising from pollution.

From a legal point of view, implementing this principle leads to the advancement of justice and helps to harmonize international environmental policies.

According to the Recommendation of the Council (OECD) entitled "Legal Instruments concerning the application of the Polluter-Pays Principle to accidental pollution", 2022, based on the According to the Recommendation of the Council of May 26, 1972, on the Guiding Principles Concerning International Economic Aspects of Environmental Policies [C(72)128] the "*Principle to be used for allocating the costs of pollution prevention and control is the so called Polluter-Pays Principle". The implementation of this principle will*

[25] H.Smets, *Le principe pollueur-payeur, un principe économique érige en principe de droit de l'environnement?* RGDIP, 1993, P.346.

"encourage rational use of scarce environmental resources". According to the Recommendation of the Council of November 14 1974 on the Implementation of the Polluter-Pays Principle [C(74)223] "the Polluter-Pays Principle... means that the polluter should bear the expenses of carrying out the pollution prevention and control measures introduced by public authorities in Member countries, to ensure that the environment is in an acceptable state. In other words, the cost of these measures should be reflected in the cost of goods and services which cause pollution in production and/or consumption". In the same Recommendation the Council recommended that, "as a general rule, Member countries should not assist the polluters in bearing the costs of pollution control whether by means of subsidies, tax advantages or other measures".[26]

Article 6 of the International Convention relating to intervention on the high seas in cases of oil pollution casualties, Brussels, 1969, stipules that any member State who has taken actions contrary to the provisions of this Convention, which caused damages to others, shall pay compensation in the damages resulting from activities that are logically more than what is necessary to achieve the goals mentioned in Article 1 of the Convention.[27]

In addition, the 1984 and 1992 protocols of the 1969 Brussels Convention, which amended the Brussels Convention on Civil Liability for Damage caused by Hydrocarbon Pollution, refer to the "polluter pays" principle. The Convention for the Prevention of Marine Pollution caused by the Disposal of Waste and Other Substances, London, 1972[28], outlined the principles and general provisions in this regard. The noteworthy point is that the International Maritime Organization set obligations to its members in the direction of this convention from the secretariat. In terms of content, this convention deals with preventing hazardous waste disposal in the sea. Article 10 states that the contracting parties undertake, according to the principles of international law, the responsibility of States in the field of damage to the environment of other States or any other environmental area as a

[26] OECD, Recommendation of the Council concerning the Application of the Polluter-Pays Principle to Accidental Pollution, OECD/LEGAL/0251. https://legalinstruments.oecd.org/public/doc/38/38.en.pdf

[27] International Convention relating to intervention on the high seas in cases of oil pollution casualties, Brussels, 1969, https://treaties.un.org/pages/showDetails.aspx?objid=08000002801089a9

[28] EUR-Lex - 62003CJ0459 - EN - EUR-Lex. https://eur-lex.europa.eu/legal-content/RO/TXT/?uri=CELEX:62003CJ0459

result of the disposal of waste materials and other materials of any kind.

The Convention on Preparedness, Response and Cooperation against Oil Pollution, London 1990, was approved by the International Maritime Organization to recognize the polluter pays principle as one of the general principles of international environmental law.

The Convention on Civil Liability for Damage Resulting from Activities Dangerous to the Environment, Logano, 1993, is one of the essential binding sources regarding civil liability for damage caused by dangerous environmental activities. The basis of this convention is the "polluter pays" principle. According to Article 1, the convention's purpose is to guarantee sufficient payment and appropriate compensation for damages caused by dangerous environmental activities and establish prevention or restoration tools.

The 2015 Paris Agreement [29] could be a perfect example of implementing the "polluter pays" principle. This Agreement stipulates that polluting parties must undertake to reduce greenhouse gas emissions and accept the increasing costs of pollution.

Moreover, several international environmental treaties have explicitly recognized the "polluter pays" principle in their provisions. These legal instruments require that the member States of the conventions implement the principle. Furthermore, they oblige States to accept the national laws related to the responsibility for the damages caused by pollution.

Principle of Public Participation

Public participation is another principle of international environmental law. Public participation, including non-governmental organizations, scientists, women, and youth, plays a primordial role in implementing and developing international environmental law. This participation could be in various forms at the national and international levels, including participation in the development of environmental law, participation in preserving and protecting the environment, participation in environmental protection and development, participation in planning, decision-making and implementation, participation in the transfer of science and technology, local capacity building, consultative participation (participation of public and private sectors in environmental

[29] Paris Agreement on Climate Change, 2015, United Nations: https://unfccc.int/sites/default/files/english_paris_agreement.pdf

meetings instead of contractors), participation in the implementation of the environmental convention and participating in compensating for losses caused by non-fulfillment of obligations, pollution, etc.

Several international treaties have recognized the role of public participation in international environmental law. For example, the 1971 Ramsar Convention has contributed consultative position the non-governmental organizations. It has stipulated that the contracting parties are responsible for the implementation of the duties arising from the convention, especially in the case of wetlands located in the territories of more than one contracting party or the possibility that the water basin is divided between several contracting parties. In this regard, they could demand to consult and participate with non-governmental organizations.

Article 4 of the Convention Concerning the Protection of the World Cultural and Natural Heritage (UNESCO) Paris, 1972, specifies that each of the member states of the convention accepts the obligation to identify, protect, and promote cultural heritage. In order to achieve this goal, States will take action by resorting to its maximum available facilities and, if necessary, by attracting international assistance and participation, especially financial, artistic, technical and scientific facilities. Article 13 obliges the member states to cooperate nationally, internationally, governmental and non-governmental in line with the implementation of the convention's goals. To implement its programs and plans, the committee stipulated in this convention can request consultations from the private sector.

Article 9 of the Convention on the Prevention of Marine Pollution caused by the Disposal of Waste and Other Substances, London 1972, requested the contracting parties to pay attention to the collaborative process in order to achieve the goals of the convention and declared that the contracting members in participating with public and private sectors.

In its preamble, the Vienna Convention for the Protection of the Ozone Layer of 1985 considers international cooperation and participation at different levels as one of the tools that accelerate the implementation of the provisions of the convention and accelerate the achievement of the goals of the convention. Article 9 (2) of the Convention has emphasized the necessity of cooperation and participation regarding the exchange of information and public awareness of the committed members with

international organizations. Article 11 (2) obliges States to accept the participation of any organ or organization qualified in ozone layer preservation, national and international, governmental and non-governmental.[30]

The 2015 Paris Agreement on Climate Change recognized the role of public participation. Article 12 states that "*Parties shall cooperate in taking measures, as appropriate, to enhance climate change education, training, public awareness, public participation and public access to information, recognizing the importance of these steps with respect to enhancing actions under this Agreement*".[31]

Moreover, many international environmental treaties at the regional or global levels recognized the role of public participation. These legal instruments recognize private sector and non-governmental organizations for environmental protection.[32] Therefore, the groups involved should participate and consult to facilitate the compilation, establishment, and implementation of environmental plans. In addition, some regional conventions have recognized public participation in all economic, social, political and environmental matters.

Finally, the milestone of public participation is the Convention on access to information, public participation in decision-making and access to justice in environmental matters accepted in Aarhus, 1998. According to the dispositions of the Convention, States should recognize access to information, public participation in decision-making and access to justice in environmental issues.

Sustainable Development

Today, sustainable development is considered one of the most fundamental issues of international environmental law. The importance of sustainable development in international environmental law is such that the world is witnessing the transformation of this legal branch into international sustainable development law.

[30] Poorhashemi, A. (2022). Opportunities and Challenges Facing the Future Development of International Environmental Law. In: Gökçekuş, H., Kassem, Y. (eds) Climate Change, Natural Resources and Sustainable Environmental Management. NRSEM 2021. Environmental Earth Sciences. Springer, Cham. https://doi.org/10.1007/978-3-031-04375-8_5

[31] Paris Agreement on Climate Change, 2015, United Nations: https://unfccc.int/sites/default/files/english_paris_agreement.pdf

[32] D. Grimeaud, *Le droit international et la participation des Organisations non gouvernementales à l'élaboration du droit de l'environnement : une participation en voie de formation ?* , in M. Pâques et M. Faure, *La protection de l'environnement au cœur du système juridique international et du droit interne: acteurs, valeurs et efficacité*, Bruxelles, Bruylant, 2003, P.383.

The principle of sustainable development[33] is a progressive principle that indicates providing the needs of the current generation without reducing the abilities of the future generation to meet their needs. Therefore, sustainable development has been mentioned in a large number of international treaties regarding the environment.[34]

The 1992 Climate Change Convention states that all countries, especially developing countries, need access to the required resources to achieve sustainable development. It also emphasized the cooperation of all nations to protect the climate system for the present and future generations. Furthermore, article 2 of the 1997 Kyoto Protocol states that to fulfill States' obligations to reduce the number of emissions and also to promote sustainable development requires implementing more policies and measures.

Article 2 of the 1992 Convention on Biological Diversity provides a clear definition of sustainable development in such a way that the use of biological constituents in a way that does not reduce biodiversity in the long term to maintain its ability to meet the needs and hopes of current and future generations. Also, Article 7 refers to the measures related to protection and sustainable use. Finally, Article 10 considers the sustainable use of biodiversity components.

Even if the Stockholm Declaration of 1972 was the preliminary stage of establishing the relationship between environmental protection and development as the central concept of sustainable development, the idea of Sustainable development emerged in late 1980.

The World Commission on Environment and Development report, entitled "Our Common Future," resulted from more than three years of Brundtland Commission's work and was approved by the United Nations General Assembly. In this report, "sustainable development" is meeting the needs of the present without forgetting the needs of the future generation.[35]

[33] Daniel Freire, Abbas Poorhashemi, Edson Ricardo Saleme (2021), Environmental Infringements Disputes Solutions in Brazil and Canada, journal Veredas do Direito: Direito Ambiental e Desenvolvimento Sustentável, Brazil http://revista.domhelder.edu.br/index.php/veredas/article/view/1997

[34] Poorhashemi, A. (2022). International law and global governance. CIFILE Journal of International Law, 3(5), 70-74. http://www.cifilejournal.com/article_147709_8c500e8fb578797672faa744cebb2c6e.pdf

[35] Report of World Commission on Environment and Development, Our Common Future,

The 1992 Rio Declaration addressed the legal concept of sustainable development. The first principle of the Declaration states that humans are the main subject of any development, and having healthy physical and mental abilities is one of the rights of humans in harmony with nature. The second principle allows the right of governments to exploit resources based on their own environmental and development policies. The third principle of the Rio Declaration states that the right to development should be applied in a way that equally meets the needs of the current generation and future generations in the development and environmental protection field. By setting goals, the Millennium Declaration, New York 2000 shows the way to economic, social and environmentally sustainable development. According to the Declaration, sustainable development aims to eliminate extreme poverty and hunger, achieve universal primary education, develop gender equality and empowerment of women, reduce child mortality, improve mothers' health, and fight against AIDS.

Conclusion

The number of principles in international environmental law is not limited to those mentioned above. There are also other principles for environmental protection.

Since the Stockholm Declaration of 1972, many international treaties were adopted and recognized the principles of international environmental law. However, these principles have been established in vague and general terms without specific commitments or quantified objectives. Therefore, the implementation and effectiveness of these principles depend exclusively on the political will of States and their financial and technical capacity.

It is evident that international environmental law's purpose is to protect the global environment for present and future generations. However, despite the considerable progress in this field of law, the global environment is facing challenges such as climate change, global warming, different kinds of pollution, desertification, and threats to biodiversity.

The current state of the global environment shows that the results of existing international environmental law are not acceptable for current and future generations.

https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf

At the international level as well as at the national level, several obstacles hinder the implementation of these principles. One of the main challenges to implementing these principles is States sovereignty. In addition, other shortages such as economic, financial, technical and political power limit the implementation of these principles for international protection of the environment.

CONFLICT OF INTEREST

The author (s) declares that there is no conflict of interest regarding the publication of this manuscript. In addition, the ethical issues, including plagiarism, informed consent, misconduct, data fabrication and/or falsification, double publication and/or submission, and redundancy, have been completely observed by the authors.

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