

The Role of International Law in Addressing Global Environmental Challenges: A Case Study of Climate Change

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<https://doi.org/10.70758/elqarar/7.21.27>

Received : 28/8/2025

Accepted : 6/9/2025

Published : 15/9/2025

Cite this article as: El-Kheir, Diana Khoder; *The Role of International Law in Addressing Global Environmental Challenges: A Case Study of Climate Change*, *ElQarar Journal for Peer-Reviewed Scientific Research*, vol 7, issue 21, Second year, 2025, pp. 592-629. <https://doi.org/10.70758/elqarar/7.21.27>

Abstract

International environmental law has emerged as one of the most important tools available to the international community in addressing the global environmental challenges that have intensified since the Industrial Revolution. Economic models based on the over-exploitation of natural resources, technological developments, neoliberal globalization, wars, and excessive consumption have all contributed to crises that threaten human life, such as climate change, greenhouse gas emissions, nuclear and chemical pollution, desertification, biodiversity loss, and the depletion of natural resources. In response to these challenges, international environmental law has developed as a relatively recent branch of public international law, aiming to regulate the behavior of states and prevent or mitigate transboundary environmental harm. This concern has been reflected in several landmark conferences and international agreements, notably the Stockholm Conference (1972), the Brundtland Report Our Common Future (1987), the Rio Earth Summit (1992), the United Nations Framework Convention on Climate Change (1992), the Kyoto Protocol (1997), and the Paris Agreement (2015).

This research focuses on climate change as a case study of one of the most serious trans-boundary environmental threats, highlighting the role of international agreements in addressing it, as well as the political and economic obstacles to implementation—particularly the disparities between developed and developing countries, and the weakness of enforcement and sanction mechanisms. It also explores the structural challenges that hinder the effectiveness of international environmental law, such as the lack of political will, conflicting economic interests, and unequal distribution of resources and technical capacities among states.

The study concludes that the success of the international legal system in protecting the environment depends on strengthening binding frameworks, activating monitoring and enforcement mechanisms, and empowering non-governmental organizations and international courts to support compliance. Moreover, it stresses the necessity of integrating environmental protection into the broader concept of human security and sustainable development.

Keywords: International Law, Global Environmental Challenges, Climate Change, International Cooperation, Environmental Governance, Sustainable Development

دور القانون الدولي في مواجهة التحديات البيئية العالمية: دراسة حالة التغير المناخي

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<https://doi.org/10.70758/elqarar/7.21.27>

تاريخ النشر: 2024/9/15	تاريخ القبول: 2025/9/6	تاريخ الاستلام: 2025/8/28
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للاقتباس: الخير، ديانا خضر، دور القانون الدولي في مواجهة التحديات البيئية العالمية: دراسة حالة التغير المناخي، مجلة القرار للبحوث العلمية المحكمة، المجلد السابع، العدد 21، السنة الثانية، 2025، ص-ص 592-629. <https://doi.org/10.70758/elqarar/7.21.27>

المُلْخَّص

يشكل القانون الدولي البيئي أداة رئيسية للمجتمع الدولي في مواجهة التحديات البيئية العالمية التي تفاقمت منذ الثورة الصناعية. فقد أدت الأنماط الاقتصادية القائمة على الاستغلال المفرط للموارد الطبيعية، والتطورات التكنولوجية، والعلومة النيلوليرالية، إضافةً إلى الحروب والاستهلاك المفرط، إلى نشوء أزمات بيئية تهدّد استقرار الحياة البشرية. تتمثل أبرز هذه الأزمات في تغيير المناخ، وانبعاثات الغازات الدفيئة، والتلوث النووي والكيميائي، والتصرّر، وفقدان التنوع البيولوجي، وتراجع الموارد الطبيعية.

وأمام هذه التحديات، تبلور القانون الدولي البيئي كفرع حديث نسبياً من القانون الدولي العام، يهدف إلى تنظيم سلوك الدول ومنع أو الحدّ من الأضرار البيئية العابرة للحدود. وقد تجسّد هذا الاهتمام في عدد من المؤتمرات والاتفاقيات الدولية البارزة، أبرزها مؤتمر ستوكهولم (1972)، تقرير «مستقبلنا المشترك» (1987)، قمة الأرض في ريو (1992)، اتفاقية الأمم المتحدة الإطارية بشأن تغيير المناخ (1992)، بروتوكول كيوتو (1997)، واتفاق باريس (2015). لذا، يرتكز البحث على دراسة ظاهرة تغيير المناخ بإعتبارها أحد أخطر التهديدات البيئية العابرة للحدود، ويسلط الضوء على دور الاتفاقيات الدولية في مواجهتها. وعليه، يناقش البحث الصعوبات السياسية والاقتصادية التي

تعيق تنفيذ الالتزامات، مثل التقاويم بين الدول الصناعية والنامية، وضعف آليات الإلزام والعقوبات. كما يتطرق إلى التحديات البيئية التي تعرّض فعالية القانون الدولي البيئي، والتي تشمل قصور الإرادة السياسية، وتضارب المصالح الاقتصادية، وعدم تكافؤ الموارد والقدرات التقنية بين الدول. وبالتالي، يخلص البحث إلى أن نجاح النظام القانوني الدولي في حماية البيئة يتوقف على عدّة عوامل، بما في ذلك تعزيز الأطر الملزمة وتفعيل آليات الرقابة والعقوبات، بالإضافة إلى إشراك المنظمات غير الحكومية والمحاكم الدولية لدعم الالتزام بالقواعد البيئية. كذلك، يؤكد البحث على ضرورة أن تُصبح حماية البيئة جزءاً لا يتجزأ من مفهومي الأمن البشري والتنمية المستدامة.

الكلمات المفتاحية: القانون الدولي، التحديات البيئية العالمية، تغيير المناخ، التعاون الدولي، الحوكمة البيئية، التنمية المستدامة.

Introduction

Since the first Industrial Revolution began in Britain in the eighteenth century, and with the subsequent competition among European countries and the United States, environmental problems started to loom. In the mid-twentieth century, Asian and Third World countries also sought to catch up with this revolution, viewing it as an ideal path for development. However, the late twentieth and early twenty-first centuries saw intense global economic competition, fueled by the third industrial revolution, technological advancement, and neoliberal globalization. This era, marked by destructive wars, a burgeoning consumer culture, and the overexploitation of fossil fuels and nuclear energy, has transformed environmental issues into a serious and undeniable threat to human life.

In this context, alongside security threats, the world today faces a host of environmental problems that affect people and threaten stability and peace in both developing and developed countries.

Atmospheric carbon dioxide emissions, global warming, ozone hole, climate change, electronic, solid and toxic waste, pollution of fresh and groundwater, seawater and ocean water, loss of soil productivity, ecological diversity, animal and plant extinction, deforestation, scarcity of some natural resources, desertification and drought, and the spread of pollutants that cause incurable diseases are just the tip of the iceberg.

In the face of these dilemmas, global environmental changes have risen to the top of the agenda for researchers, policymakers, and the international community, alongside other critical issues such as human rights, development, and counter-terrorism. For nearly half a century, security challenges have dominated international concerns. However, environmental dangers are no longer merely a national problem, they have become a regional and global issue that directly threatens human survival. Addressing this requires the global community to provide human resources and all elements of sustainable development, in addition to finding solutions for issues that threaten global security, particularly violence and the proliferation of weapons of mass destruction, which embody organized crime.

First Topic: Definition of International Environmental Law

The promotion and protection of human rights and the rule of law present a unique challenge to environmental issues. Further, this raises critical questions about the ethics guiding human economic behavior and prompts new insights for reconfiguring our practices. A philosophical shift is needed for a sustainable environmental future based on the principles of responsible participation and environmental security. This approach requires humanity to control the mechanisms it invents to build a civilization that ultimately aims to secure and guarantee a life of well-being for all.

In the context of the dialectic of the relationship between man and the environment, we believe that it is appropriate to define the term “environmental law” as an introduction to the definition of “international environmental law”.

Environmental law is the law that deals with the environment and aims to preserve and protect it, as it was stated at the Tbilisi Conference on Environmental Education in 1978 that it is “a set of natural, social and cultural systems in which man and other organisms live, from which they derive their origins and perform their activities”⁽¹⁾.

From this definition, it is understood that environmental law is not limited to nature, but rather concerns the human environment as a whole. It is therefore a branch of law that seeks to stop any human behavior or conduct that may adversely affect the natural factors that humanity has inherited on earth.⁽²⁾

International environmental law is the set of rules and principles of international law that regulate the activity of States in the prevention and reduction of various damages resulting from different sources of the environmental environment or beyond the limits of sovereignty(jurisdiction).⁽³⁾

It should be noted that these principles are based on the right of the state to exercise its sovereignty over its natural resources and to extract them in accordance with international law and in accordance with its policy of environmental protection, without harming the environment surrounding other States, otherwise it would incur international responsibility⁽⁴⁾.

(1) Al-Awadhi, B. (1985). The role of international organizations in the development of international environmental law. *Journal of Law*, University of Kuwait, (2), 40.

(2) Al-Hadithi, S. A. A. (2010). The international legal system for the protection of the environment. Halabi Legal Publications, Beirut, p. 60.

(3) Amin, H. (1994). Introductions to environmental law. *International Politics*, (177), 130.

(4) These principles are derived from the Stockholm Declaration of 1972 (Al-Awadhi, B., previously cited, pp.

However, Allen Springer's definition of international environmental law was more comprehensive: "It is concerned with the study of the norms and laws established by the international legal system, which directly or indirectly regulate environmental changes, which can be traced back to human activity, and which the international community recognizes as having a detrimental effect on valuable human interests."⁽¹⁾

The importance of the research considering the increasing global environmental challenges is represented in the subject of international environmental protection, and its close connection to a number of branches of international law, such as international humanitarian law, international environmental law, international human rights law, international criminal law, international law of outer space, and other relevant legal branches. The human being, as the goal, according to an approach that elevates him and makes him the center of attention, protection and care.

In order to draw conclusions, a thorough explanation is needed to answer the dialectic of the questions that revolve around it: since the interplay between environmental challenges and conflict is complex, will climate change, environmental degradation, and resource scarcity destabilize the world?

Are there strong linkages and effective global governance to provide environmental security that is threatened by global political stability, like the role of the international community in protecting humanity from the phenomenon of terrorism, organized crime, global and local tensions, their exacerbation, and war crimes?

The fundamental issue posed by the phenomenon of environmental changes, which is no less serious than security challenges, is related to environmental factors for conflicting reasons, in addition to social and other motives, as some researchers point to the impact of five factors on environmental variables, which constitute a serious source of local, regional and international instability: population growth, standard of living, sustainable development, ecosystem damage, environmental degradation, climate change and water, which exacerbate violence, internal and regional disturbances, as well as Threats to global security.⁽²⁾

The reports of the Secretary-General of the United Nations on the work of the Organiza-

83-84).

(1) A. SPRINGER, "The international law of pollution protection the Global Environment I a World of Sovereign State", Westport, Connecticut: Querum Books, 1983, p. 54.

(2) Hans Gunter Brauch, Antonio Marquina, Paul F., Rogers, P. H. Liotta, Mohammad El-Sayed Selim, "Security and Environment I the Mediterranean", New York, 2003, p. 919.

tion and the reports of specialized international agencies (the World Health Organization, the International Labor Organization, etc.) have indicated. Human Development Reports, and the United Nations International Conferences on Development, Environment and Population at the beginning of the third millennium, to the challenges of the twenty-first century resulting from the repercussions of the principles of neoliberal materialism, with its comprehensive social, economic, technological, security, political, environmental and cultural dimensions, which led to a change in the concept of human security, which is no longer based only on the military concept, but also on the extent to which the basic and necessary needs of human existence (environment, health, etc.) are secured. Culture, Economy, Society.⁽¹⁾

These challenges are manifested in the widening cycle of poverty, which leads to material deprivation of income, health and education, and vulnerability to risks such as disease, hunger, malnutrition, violence, deaths and school dropouts⁽²⁾.

The results of field surveys on Israel's war on Lebanon in July 2006, conducted by the Panel of Experts of the Post-Conflict Assessment Branch of the United Nations Environment Program (UNEP) between September and November 2007, proved that pollution affected many factories and industrial complexes that were bombed and burned due to toxic and health-hazardous elements⁽³⁾ In October 2007, the Agency, in contract with the Lebanese marine contracting company "Promar", completed the final clean-up of 23 sites in the second phase.⁽⁴⁾

It is worth mentioning that the most prominent causes of global environmental issues are due to human and natural factors, and in this context, the world faces major challenges in the field of agriculture and food, such as climate change, as it poses a direct threat to

(1) Charles-Albert Michalet, *Qu'est-ce que la Mondialisation*, Edition la découverte, Paris, 2002, p. 97-100.

(2) Ziegler, J. (2003). *The new masters of the world* (M. Z. Ismail, Trans.). Center for Arab Unity Studies, Beirut, December, pp. 91-100.

(3) The report refers to oil pollution following the bombing of the fuel tanks at the Jiyeh power plant, south of Beirut, which resulted in the leakage of about 15,000 tons of fuel oil into the local marine environment. United Nations Environment Program Report on the Lebanon War, Berlin, January 23, 2007. The report's findings are based on a field assessment conducted by 12 environmental experts between late September and mid-October, following a request submitted by the Lebanese Minister of Environment. The assessment team was accompanied by 12 staff members from the Lebanese Ministry of Environment, volunteers, and a scientist from the Lebanese Atomic Energy Agency. The team visited more than 100 carefully selected sites, and the study and analysis process included the collection of samples of soil, surface and groundwater, dust, ash, seawater, sediments, and mollusks such as oysters.

(4) "Cleaning up oil residues in Lebanon." *Environment & Development Magazine*, 13(118), December 2008, p. 13.

the ability to survive, grow and prosper. Combating climate change, from rainfall to crop failures and rising food prices that have led to food insecurity, as well as the destruction of livelihoods, increased migration and armed conflicts, curbing opportunities for children and adolescents, the “heat trapping” effect, the “greenhouse effect”⁽¹⁾, the erosion of the ozone layer, desertification, animal and plant extinction, electronic, toxic and nuclear waste, excessive consumption of natural resources and wars.⁽²⁾

First Requirement: The Concept and Objectives of International Environmental Law

In a 1976 law, the French legislature defined the environment as «those resulting from the natural sciences and applied to human societies.» However, some legislation has expanded this definition to include common natural and cultural heritage. A notable example is Article 1 of the Bulgarian Law on the Protection of the Environment, which adds natural and historical heritage as a component of the environment.

In this context, some economists have pointed out that with the attainment of Reagan’s Thatcherian neoliberal globalization, whose financial and economic principles and standards are based on liberal philosophy, based on privatization, the liberalization of markets from tariff restrictions, the abolition of financial subsidy policies, the liberalization of the service sector, and the promotion of competition and foreign direct investment, have had negative repercussions on the environment and the socio-economic situation in both developing and capitalist countries.⁽³⁾ This unjust globalization, along with the evolution of the natural world order, has embodied one of the main reasons for the emergence of new global challenges that individual states have been unable to face, and has overthrown the principles of sustainable development, bypassing the social, economic and environmental rights of future generations.⁽⁴⁾

The evolution of environmental protection has been accompanied by a shift in the concept of national sovereignty. This has led to a more positive view of sovereignty, as seen in the Stockholm Declaration on the Human Environment. This declaration was a crucial turning point, translating the principles of human rights freedom, equality, and dignity into a new understanding of natural resources. It affirmed that the planet’s resources aren’t limited to

(1) El-Khouli, O. (2002). Environment, development, and industrialization issues. The World of Knowledge Series, (285), Al-Siyasa Press, Kuwait, pp. 28–30.

(2) Saleh, W. (2001). Contemporary global issues. Dar Al-Fikr, Damascus, p. 97.

(3) Ziegler, J., previously cited, pp. 100–102.

(4) Haddad, R. (2000). International relations. Dar Al-Haqqa, Beirut, pp. 287–560.

just oil and minerals but also include air, water, land, plants, and animals. These resources, along with representative ecosystems, must be preserved for the benefit of both present and future generations.⁽¹⁾

It is well known that the aim of environmental law is to protect the environment and preserve its elements, but the essence of the issue is to ensure the organization and arrangement of environmental affairs, and the means lies in the development of legal texts that criminalize acts and actions that cause harm to the environment, and the imposition of penal penalties against the perpetrators, in addition to arranging civil liability for the perpetrators of acts harmful to the environment. It has issued a report entitled “A safer world: our shared responsibility”⁽²⁾, which articulately and clearly articulates the principle of “sovereignty as responsibility”.

The concept of state sovereignty can be defined, and its deep meaning can be defined by undergoing a major transformation process, which is not only due to the fact that it is under the pressure and forces of globalization and international cooperation, as states must now be seen as tools in the service of their peoples, and not the other way around.⁽³⁾

Profound environmental changes caused by the increasing volume of human activity have led many observers to conclude that the planet has entered the “Anthropocene”, the geological era indicated by human influence on the biosphere, as international environmental law is a set of conventions and principles that reflect global collective efforts to solve our most serious environmental problems, and minimize their various damages that result from different sources of the environmental environment, or beyond the boundaries of regional policy, including climate change, ozone depletion, and mass extinction for wildlife.⁽⁴⁾

In general, international environmental law aims to achieve sustainable development, and therefore this law is critical to addressing specific environmental threats, and long-term environmental protection in the global economy, but not all of these threats provoke an international response, countries usually resort to international cooperation when environmental impacts are transboundary (pollution in the Great Lakes), or global, such as: (climate change), or even that certain international activities contribute to environmental

(1) From Principle 2 of the 1972 Stockholm Declaration.

(2) It was discussed and adopted by the United Nations General Assembly at its fifty-ninth session in December 2004.

(3) K. ANNAN, Secretary General presents his Annual Report to the general Assembly, 20 September 1999, http://www.un.org/News/OSSG/SG/stories/statements_search_full.asp?statID=28.

(4) Hosni, A. (1992). Introductions to international environmental law. International Politics Journal, (110), October, p. 130.

harm, for example, the international trade in elephant ivory or the killing of whales, and under these circumstances, international cooperation, whether in the form of a binding treaty or a “legally non-binding” agreement, becomes essential to respond effectively to the environmental challenge.⁽¹⁾

It should be noted that the primary purpose of all this movement is to protect human beings for survival, and not only to preserve their lives in armed conflicts, or humanitarian intervention to avoid death due to genocide or crimes against humanity, but also to protect them from death due to environmental and natural hazards, which are expanding day by day.

Since international law is constantly evolving with the society that governs its legal ties, the rules of this law have differed according to time and place, as international environmental law considered itself to be newly established in relation to this law, which began to appear only in the last third of the twentieth century, with the increase in human activities harmful to the environment, and saying that international environmental law is newly established means that its rules are still in the process of being formed, so it still needs many provisions that control International conduct of persons for the effective protection of the environment.⁽²⁾

It should be noted that the philosophy of “deep ecology” has its roots in the Norwegian philosopher Arne Naess⁽³⁾, who focused on the critique of the human-centered sustainability movement, which was concerned with pollution and the depletion of resources.

Section One: The Difference Between Traditional International Law and International Environmental Law

There is no dispute that environmental law is an important branch of public international law concerned with protecting all aspects of the environment. While this field expanded significantly with the Industrial Revolution, its core principles were recognized much earlier. Islam, for example, has long emphasized the importance of environmental preservation, as exemplified by the Prophet Muhammad’s saying, “Fear God in your mother earth.” Although general international law was newly established in comparison with domestic law, as the set of binding legal rules governing the relations between

(1) Daniel Bodansky, *The art and graft of international law*, Harvard university press, 2009. David Hunter, et al, *International environmental law and policy foundation press*, 2013. Patricia Birnie, and Alan Boyle, *International law and the environment* 3rd ed Oxford university press, 2009.

(2) Abu Al-Ata, R. S. (2009). Protection of the environment from the perspective of public international law. *Dar Al-Jameaa Al-Jadida, Al-Azarbitia*, pp. 26–27.

(3) NAESS’s doctrine of biospheric egalitarianism.

international persons, states and organizations, it was not until the sixteenth century that it was fully developed, when its rights and duties were identified, and the relations that might arise between such persons and individuals were determined.⁽¹⁾

It can be said that some have defined international environmental law as: “a set of international legal principles and norms aimed at preserving and protecting the environment by regulating the activity of subjects of general international law in the prevention and reduction of environmental damage and the implementation of obligations relating to the protection of the environment”.⁽²⁾

This law stands apart from other branches of international law because it is designed to protect a common interest. All nations must safeguard this interest by using environmental resources wisely for the benefit of both present and future generations.

International environmental concerns have been translated into a tangible focus through their inclusion on the agendas of global conferences, especially within the sustainable development framework. This has led to the creation of numerous international and regional conventions that countries are expected to adopt and implement. These agreements, often accompanied by sets of principles and recommendations, form an action plan adopted by the United Nations General Assembly. Further, this approach allows countries to affirm their right to development while also fulfilling their environmental obligations.⁽³⁾

Initial, sporadic legal attempts by international jurists to address environmental problems did not fully grasp the integrated concept of the environment. A comprehensive approach was finally realized at the first international conference on human and environmental issues, held in Stockholm, Sweden, on June 5, 1972. This landmark event, held under the slogan “Only one earth,” concluded with the adoption of a set of crucial principles and recommendations. These continue to serve as the foundational reference for all those working in environmental protection.

A new branch of international law, namely international environmental law, emerged after the emergence of many risks because of industrial development, population density, the

(1) Manie, G. A. N. (2005). Public international law (Introduction and source). Dar Al-Uloom for Publishing and Distribution, pp. 16–17.

(2) Kiss (A): “Traité de droit Européen de l’environnement”, éditions frison, 1995, p. 4.

Hussein, A. (1992). Introductions to international environmental law. International Politics Journal, (110), October, p. 130; Salah, H. (1991). International responsibility for impairing the safety of the marine environment (Doctoral dissertation). Cairo University, p. 3.

(3) Calvert, P., & Calvert, S. (2002). Politics and society in the Third World (Introduction) (A. J. Al-Ghamdi, Trans.). King Saud University Press, Riyadh, p. 425.

emergence of global warming, wars, and their negative effects on the environment, which made it an issue that has been the focus of attention all over the world.

In 1983, when the Secretary-General of the United Nations asked the then Prime Minister of Norway (Gro Harlem Brundtland) to form a committee to look at the best ways to enable our planet to continue to meet basic needs, through practical assumptions that raise public awareness of the issues linking development to caring for and preserving the environment, and with the publication of the report “Our Common Future” by the Agency (now known as the World Agency for Environment and Development (WCED).), in 1987, the concept of “sustainable development” became a central concept for future thinking.⁽¹⁾

These alarming developments, the sense that human survival and destiny are linked to the survival and fate of other living things, as well as the persistence of the planet and its organizations as a habitable place, as well as the global awareness of how bad things have been since 1973, directly contributed to the holding of the first global environmental summit of its kind, the Earth Summit in Rio de Janeiro, Brazil in 1992.

Section Two: Climate Change as an International Issue

Its judicial mechanisms and has successfully demonstrated its just global aspect. This progress, however, must be complemented by continued efforts to solidify a framework that is not only robust but can also be reliably upheld at all times. Similarly, global environmental law has begun to assert its importance on the international stage. Further, driven by a shared global concern, it pushes for finding and implementing solutions to achieve the common global interest.

It is worth mentioning that tackling climate change is the most collective challenge that humanity has faced to date, and therefore success requires costly and coordinated efforts among many countries to deal with the distant threat, knowing that the Intergovernmental Panel on Climate Change issued its fourth report in 2007, which confirmed that climate warming is caused by human activities. From the composition that has taken place over it, this committee has proven through its reports that it enjoys a high level of scientific monitoring, and has become a reference on which the participants, representing countries and organizations, rely when meeting and signing international conventions in this regard.

While welcoming the independent review of the work of the Intergovernmental Panel on Climate Change (IPCC)⁽²⁾ by the Joint Academic Council, the UN Secretary-General has

(1) Calvert, P., & Calvert, S., previously cited, p. 425.

(2) The review was issued in September 2010.

prepared to issue its report in 2014, based on specific recommendations.

First: Explaining Climate Change and its Global Impacts

The environmental degradation, that has occurred primarily over the past century, suggests that the dominant liberal capitalist economic model, which extracts and depletes non-renewable resources, exploits renewable resources beyond their capacity to regenerate, alters the Earth's chemistry, and distorts its ecosystems, is causing irreparable damage to land, water, and air.⁽¹⁾

Further, human activity has become a significant driver of the increase in gases that contribute to global warming, threatening serious environmental and health problems. Despite the varied climate change models and the difficulty of predicting the most extreme changes, it is clear that human activity has dramatically increased the amount of greenhouse gases in the atmosphere. The resulting rise in temperature and other climate shifts have occurred at a pace unprecedented in recent history, giving us good reason to be concerned.⁽²⁾ The overexploitation and destruction that accompany development are a product of modern industrial society, which has embraced values and beliefs that push in this direction.⁽³⁾ However, resource inequalities can be solved through innovation, funding, and sustainable growth.

Some scientists have pointed out that the problem of global warming and climate change is a result of accelerated industrial production, mineral extraction, the combustion of fossil fuels such as coal, petroleum and others. Further, this has led to an increase in various pollutants in the atmosphere and an exacerbation of their harmful effects.⁽⁴⁾ Also, agriculture is also a significant source of greenhouse gases. Both crop production and the livestock sector release these gases into the air, accounting for a major portion of methane emissions from cows and swamps (especially rice fields) and nitrous oxide from fertilizer use.⁽⁵⁾

In this context, some scientists and researchers have expressed concern about the continuous increase in temperatures; because of the ignoring of the major industrialized and emerging economies such as China, India and Brazil, which have not stopped their activities causing or contributing to the rise in temperatures, as the member states of the Group

(1) J. COATES, Exploring the Roots of the Environmental Crisis: Opportunity for social transformation. Critical social work, 3(1), 2003, p. 44-66.

(2) Pat Thomas, Climat l'heure des choix, l'écologiste, vol. 8, No-24, Octobre- Décembre 2007, p. 9.

(3) J. Coates, Ecology and social work: toward a new paradigm, Halifax: fer-wood press, 2003. P. 27.

(4) Yves Cochet, Agnès Sinai, Sauver la terre, Fayard, Paris, 2003, p. 143-145.

(5) Yves Cochet, Agnès Sinai, Sauver la terre, Fayard, Paris, 2003, p. 143-145.

of Eight – Japan, Britain, Canada, Germany, France, Italy, Russia and the United States – account for about 40% of greenhouse gas emissions⁽¹⁾.

The Arctic and Antarctica, which are witnessing the most significant evidence of climate change, may represent the Earth's climate early warning system, as indicated by the Executive Director of the United Nations Environment Program, where the world has witnessed 11 of the warmest years in the past 125 years since the 1990s, with 2005 considered the warmest on record, and with the melting of glaciers in the world's major mountain ranges, water supply in the rivers will be affected, according to the Academy According to the Chinese Science Institute, 7% of the country's glaciers disappear every year, and by 2050, about 64% of them will have completely disappeared.

Based on all of the above, the Intergovernmental Panel on Climate Change (IPCC)⁽²⁾ confirmed in 1995 that the impact of climate change cannot lead to similar effects in different parts of the world, as climate change leads to different effects according to geographical location⁽³⁾, and therefore some communities will be more vulnerable to the impact of climate events such as droughts, floods and storms, and the resulting severity of weather-related disasters.

It adds, as expected, severe health damage to humanity, the spread of infectious diseases, and the possibility of new diseases, and poor countries are the countries most affected by climate change, as the human community will face the risks posed by the lack of water and food security.⁽⁴⁾

In light of scientific studies indicating that at least 99% of plant and animal species are extinct species⁽⁵⁾, and therefore desertification occurs as a result of the degradation of vegetation cover, the destruction of the environment with all its components of plants, water and soil, in addition to the climatic fluctuations occurring at the global level⁽⁶⁾, a number of studies have proven the direct relationship between climate change and the deterioration of human health Cholera, typhoid, intestinal and cardiovascular diseases, those affecting the

(1) Tolba, M. K. (1995). Saving our planet: Challenges and hopes of an environmental voyager in the world (1972–1992) (2nd ed.). Beirut, p. 78.

(2) This team was established through cooperation between the World Meteorological Organization (WMO) and the United Nations Environment Programme (UNEP), and is responsible for conducting scientific, economic, and social assessments, as well as studies and research related to climate change and its impacts.

(3) <http://www.epa/globlwarming/impacts/internationalindeX.htm>. United Nations Environment Programme .(1997) .Environmental Forum, 10(3), p. 7.

(4) FAO, An introduction on climate change, 2001.

(5) Environmental Forum, previously cited, 1992, p. 113.

(6) Tolba, M. K., previously cited, p. 113.

nervous and respiratory systems, fetal malformations, and the high incidence of malignant diseases⁽¹⁾.

Second: Why does climate change require international cooperation?

The Secretary-General of the United Nations has established a committee of experts to study threats to international peace and security and to make recommendations on how best to address them.⁽²⁾

At the initiative of non-governmental organizations, the United Nations, its specialized agencies and regional organizations have held several international and regional conferences on environmental protection. During these conferences, participating countries pledged to abide by the conventions adopted, which covered issues such as wetlands, international trade in endangered animals and plants, the protection of the world's cultural and natural heritage, the protection of the ozone layer, biodiversity, climate change, global warming, natural disasters, desertification, drought, persistent organic pollutants, and the transport of hazardous waste.⁽³⁾ In addition, international cooperation in the field of renewable energy has increased to maintain a healthy, clean and sustainable environment. However, despite this global cooperation and the legal frameworks for protecting the ecosystem, the international community faces significant economic and material challenges that hinder the full implementation of these environmental conventions.

Despite the progress in environmental law and renewable energy in the European Union and some industrialized countries, poor and developing nations still face significant challenges. These countries continue to grapple with major financial, technical, and legal problems that hinder their ability to achieve environmental security and sustainable development. This is further compounded by the inadequacy of international diplomacy in effectively addressing these threats.

The statistical facilities of the reports of the Secretary-General of the United Nations on the implementation of the United Nations Millennium Declaration, in particular environmental development since 2003 to date, as well as the reports of environmental scientists and experts and economists, have shown encouraging signs of progress, stagnation and regression at the same time, which are directly linked to material difficulties, legal obstacles

(1) United Nations Programme. (2001). United Nations Environment Magazine, Valley of the Two Rivers, Regional Office for West Asia, Bahrain, p. 117.

(2) This report was discussed and adopted by the United Nations General Assembly at its fifty-ninth session in December 2004.

(3) Rapport Annuel du Secrétaire Général sur l'activité de l'ONU, NU, New York, 2004, p. 32.

and technical and economic reasons at the national and international levels, particularly in the poor countries of the South⁽¹⁾.

In a speech delivered in Berlin on 15 July 2008, Ban Ki-moon outlined the principle of the responsibility to protect, which is firmly entrenched in the principles of current international law, and as endorsed by the previous World Summit Outcome in 2005, through the responsibility of the United Nations and the collective action of the Security Council to protect human societies necessary to achieve ecological and sustainable development in the face of the multiple and persistent challenges of the universe⁽²⁾ Kofi Annan considered that, “Although the United Nations is an organization of sovereign States, it was established to serve the needs and hopes of peoples everywhere.”⁽³⁾

The Second Requirement: The Role of International Conventions

The international confrontation has been dedicated to tackling global warming through several conferences and agreements, such as the United Nations Framework Convention on Climate Change (UNFCCC), which put the train on the tracks. It is therefore essential to examine the structural and functional relationship between the Framework Convention on Climate Change and Kyoto, which we will discuss in this paragraph.

Section One: Review of the most prominent international agreements (Paris Agreement of 2015, Kyoto Protocol, etc.)

It is known that there are many international conventions that have been issued to confront environmental issues and problems, including the United Nations and its programs and agencies, especially the United Nations Environment Program (UNEP), the International Labour Organization (ILO), the United Nations Educational, Scientific and Cultural Organization (UNESCO), and the International Navigation Organization (IMO). The efforts of international organizations and international financial institutions have led to the convening of global conferences and forums in order to implement and develop these conventions and to provide technical and material assistance to member states in order to combat environmental hazards.

(1) Le Rapport Annuel du Secrétaire Général sur le projet du millénaire, NU, New York, 02/09/2003, p. 15-18.

(2) Un Secretary-General Ban Ki-moon's address at an event on “Responsible Sovereignty: International Cooperation for a changed world”, Berlin, 15 July 2008. <http://www.un.org/News/press/docs/2008/SgSm11701.doc.htm>.

(3) In Larger Freedom: Towards Development, Security and Human Rights for All – Report of the Secretary-General of the United Nations, 2005, Part I, Section B, para. 14.

These agreements are mentioned as follows:

International Maritime Organization (IMO) Convention:

- a. The Convention for the Prevention of Pollution from Ships, ratified on November 2, 1973.
- b. The Convention on Preparedness, Response and Cooperation in the Event of Oil Pollution and its Protocol, ratified on 30 November 1990.

The conventions of the International Labour Organization (ILO), the most important of which are:

- a. The Convention on the Protection of the Risks of Poisoning Emitted by Gasoline, ratified on June 23, 1971.
- b. Convention for the Protection of Workers from the Risks of Air Pollution, Noise and Vibrations in the Workplace, ratified on June 20, 1977.
- c. The Convention on the Safety of the Use of Chemicals at Work, which was ratified on June 25, 1990.
- d. The Convention on the Prevention of Major Industrial Accidents, which was ratified on June 22, 1993.

Conventions of the United Nations Environment Programme (UNEP) and other specialized international organizations, including:

- a. The Ramsar Convention for Wetlands or Wetlands.
- b. The Convention for the Protection of the World Cultural and Natural Heritage.
- c. Convention on International Trade in Endangered Species of Fauna and Flora (CITES).

The Vienna Convention for the Protection of the Ozone Layer and the Montreal Protocol, which was ratified on March 22, 1985.

Environmental conventions relating to chemicals and hazardous wastes (Basel, Rotterdam, Stockholm).

The United Nations Framework Convention on Climate Change and the Kyoto Protocol, which were ratified on May 9, 1992, and the Kyoto Protocol on December 11, 1997, entered into force on February 16, 2005, following the accession of Russia, which gave le-

gitimacy to the agreement after the ratifying countries reached 60% of the total emissions recorded in 1990. Emission mitigation actions have been set for industrialized countries and those with market-economy economies to reduce emissions of the six greenhouse gases (carbon dioxide, hydrofluorocarbons and sulfur hexafluoride) by 2.5% by 2012 compared to 1990 levels⁽¹⁾.

In 1989, the United Nations General Assembly decided to convene the United Nations Conference (Rio Declaration), Agenda 21, the Principles of Forest Protection, the Protection of the Atmosphere and the Protection of Environmental Diversity⁽²⁾.

Turning to the 2015 Paris Agreement, we see:

First, it is working on a five-year cycle of increasingly ambitious climate action by countries, with each country expected to submit an updated National Climate Action Plan, known as the Nationally Determined Contribution (NDC), in which countries report on the actions they will take to reduce greenhouse gas emissions in order to reach resilient adaptation to the impacts of rising temperatures in 2023, which will assess progress on the goals of this agreement.

Accordingly, the Climate Summit was held in the French capital, Paris, on 12 December 2015, to limit global warming, to review mandatory commitments every five years, in addition to seeking to develop resolutions related to supporting the environment and sustainable development. The Convention explicitly stipulates that protecting the Earth from climate change will enhance food security and eradicate hunger⁽³⁾. The industrial era, which will reduce the negative effects of climate change on the terrestrial environment, which is called the low development of greenhouse gases, has also eliminated a set of obligations that fall on the shoulders of States parties, the most important of which are:

A global halt to emissions until we reach the goal of keeping the Earth's temperature within 2 degrees Celsius (Article 4).

The States Parties shall take all national measures and plans to combat the emission

(1) Pour plus d'information. Le protocole de Kyoto, 1997, p. 5-10.

(2) Global partnership and participation <http://www.wel.american.edu/pub/iel>.

(3) Mujdan, M. (2017). Global environmental security: A study on its concept and ways to achieve it. Algerian Journal of Political Science and International Relations, (68), June, p. 62.

of gases as a result of economic activities (Article 4, paragraph 3).

Strengthen support to developing States Parties in the fight against climate change.

Section II: The Kyoto Protocol and the Analysis of the Effectiveness of These Agreements in Reducing Climate Change

The Kyoto Protocol is a supplementary annex to the United Nations Framework Convention on Climate Change (UNFCCC) and aims to give effect to the lofty principles reached in the Convention and is therefore more practical and specific, as it translates into the agreement of States parties to adopt the principle of “responsibility common but differentiated” and to represent the voluntary commitments of the parties⁽¹⁾.

It is worth mentioning that it is so important that it is an experiment for any global environmental law, as its legal approach deals with legal additions to limit global warming, in addition to the general obligations that permeate it.

Accordingly, the Kyoto Protocol to the United Nations Convention on Climate Change was adopted at the Conference of the Third Parties in 1997 in Japan, with a preamble and 28 articles and two annexes thereto⁽²⁾.

Since the entry into force of the Kyoto Agreement on February 16, 2005, the Kyoto Agreement has faced many obstacles, the most important of which is the abstention of some industrialized and developing countries, including China, India, and the United States, which did not sign it, and some economists pointed out that the main reason for the United States is to protect the American economy from collapse, as the restrictions imposed by this protocol to reduce carbon dioxide emissions, from industrial activities, transportation, and power generation, in the opinion of the American administration, constituted an obstacle to economic development, and supported it Japan and Australia took this position, but their position later changed to conditional support.

In this context, Washington has used studies and research demonstrating that there is no human impact on climate change and that it is the result of natural geophysical processes, and in 2001 \$29 billion was allocated over five years for climate research and clean energy technology⁽³⁾.

(1) K. Ramakrishna, “The challenge of the global climate change woods”, whole research center, 1999. P. 2.

(2) Marrakedch Accords and Marrakech Deceleration, compliance committee, fo-mal 10, p. 133.

(3) Programme des Nations Unies pour l'environnement (PNUE), 2005, op, cit, p. 52.

Therefore, the solution to the climate crisis, which affects all rich and poor countries, cannot be adopted by the efforts of developed countries alone, even if emissions are reduced by 80% by 2050 by these countries, so the active involvement of developing countries, especially those with industrially fast growing economies, is required⁽¹⁾.

The Kyoto Protocol gives a practical and practical dimension, which includes the mechanisms that make it effective and important, from clean development mechanisms, through emissions trading, to the joint implementation of commitments, in addition to the means of compliance between the Facilitation Branch and the Rescue Branch, such as obliging 38 industrialized countries to reduce their greenhouse gas emissions in percentages that vary from one country to another according to the principle of general but differentiated responsibilities, and it has been decided that the European Union countries will reduce their emissions by 8% below the general level 1990, the United States of America 7 per cent⁽²⁾, Japan 6 per cent, and the Protocol obliged States parties to reduce 5 per cent of greenhouse gases, to achieve this rate between 2008 and 2012, thus establishing specific emission reduction rates and a timetable for implementation, in order to achieve the implementation of the Convention⁽³⁾.

The Paris Agreement has talked about the vision of achieving and transferring technology development fully to improve the resilience to climate change and reduce greenhouse gas emissions, thus providing comprehensive guidance that works well to accelerate the development and transfer of technology through its political and executive arms. Transparency will be a key focus from 2024 onward, with detailed reports to be provided on climate actions taken, progress in mitigation and adaptation measures, and support that has been provided or received.⁽⁴⁾ This framework emphasizes that developed countries must take

(1) Mohamed El-Ashry, "Little Progress in Poznan toward a New Climate Agreement," *Environment & Development Magazine*, Vol. 14, No. 130, January 2009, p. 90.

(2) However, the United States withdrew its approval of implementing this reduction and pulled out of the Conference of the Parties negotiations in 2000 in The Hague.

(3) Article 3, Paragraph 2 of the Protocol states: "The Parties included in Annex I shall, individually or jointly, ensure that their aggregate anthropogenic emissions do not exceed the levels agreed upon in the Protocol, and each Party included in Annex I shall have made demonstrable progress in achieving its commitments by 2005."

(4) R. Stavins, J. Zou, et al, "International cooperation: Agreements and instruments", Chapter 13 in: climate change 2014, Mitigation. What is the UNFCCC & the Cop. "climate leaders, lead india, 2009".

Archived from the original on March 27, 2009. Retrieved on December 5, 2009; Report of the Conference of the Parties in Morocco on the establishment of a mechanism for building technological capacities in developing countries and countries with economies in transition, Part II of its sixth session held in Bonn, 2001.

the lead in providing financial assistance to more vulnerable and developing nations. This is because large-scale climate finance is essential for adapting to the negative impacts of climate change and for making the significant investments required to reduce greenhouse gas emissions.

The United Nations Framework Convention (UNFCCC) is the first of the measures implemented and implemented by the Kyoto Protocol, until 2020, which was replaced by the Paris Agreement of 2016, where the highest decision-making body, the Conference of the Parties (COP), meets annually⁽¹⁾.

In this context, developed countries have pledged financial assistance of up to \$30 billion for 2010-2012 and \$100 billion until 2020⁽²⁾, as global summits were held in the Cancún Agreement in Mexico on December 10, 2010, which mandated the establishment of the Green Climate Fund, which provides \$100 billion annually in aid to poor countries by 2020, measures to protect tropical forests and ways to share clean energy technologies, and nearly 200 countries set targets to limit the increase in average scores. The temperature of the planet is below 2 degrees Celsius above the pre-industrial level⁽³⁾.

(1) About UNFCCC. "United Nations global marketplace (Ungm)", Archived from the original on August 22, 2021. Retrieved on October 22, 2020.

(2) Suzanne Baaklini, Accord de Copenhague: que s'est-il réellement passé ?, L'Orient-le Jour, 21 Décembre 2009.

(3) For more information, see report of the United Nations Climate change conference in Cancun COP 16/ CMP, Mexico, 10 December 2010.

Second Topic: Challenges Facing International Environmental Law

The environmental difficulties and problems caused by emissions from human and scientific activities, existing technologies and new technologies have changed and continue to change the complex mix of gases in the Earth's atmosphere⁽¹⁾.

We note that after the adoption of the concept of human security by the world community, in particular international organizations, regional organizations, non-governmental organizations and the majority of states, some states were quick to consider it one of the most important foreign policy issues in international relations, and contributed to its dissemination and use at various levels, it constituted one of the fundamental tasks of the principles and objectives of the European Union⁽²⁾.

The first demand: the lack of political commitment among some major countries:

Nations have worked to create laws and methods to combat environmental pollution, but these efforts face significant ethical and practical challenges. The mechanisms put in place to protect the environment often encounter financial, political, and logistical hurdles. A notable example is the United States' withdrawal from the Paris Climate Agreement in June 2017, a move that brought the concept of an "environmental ethical dilemma" to the forefront of international political discourse. ⁽³⁾the countries of the developed world are obliged in terms of decency and public conscience to respect environmental agendas to ensure security in the countries of the world and to manage the security complex. However, due to the successive failures of some international agreements, the ability of public opinion to exert pressure or present some problems over others, such as the deterioration of the ozone layer, nuclear waste, desertification and global warming, cannot be underestimated. Capacity in developing countries to promote international cooperation and to carry out the necessary studies and research to accomplish these tasks⁽⁴⁾, which are an indispensable value in the exercise of ethical principles, by individuals and societies on how to exploit their

(1) Mohammad Radwan Khoulie, *Desertification in the Arab World*, Center for Arab Unity Studies, 2nd Edition, Beirut, 1999, p. 30.

(2) Gary King, *Rethinking Human Security*, *Political Science Quarterly*, Vol. 116, No. 4, 2000, p. 12-14.

(3) Abdelaziz Al-Achawi, *Lectures on International Responsibility*, 2nd Edition, Houma Publishing, Algeria, 2009, p. 107.

(4) Article 10 of the Protocol; Al-Hussein Chokrani, "Towards Global Environmental Governance," *Strategic Visions Journal*, No. 4, October 2014, p. 139 ff.

natural resources in a way that preserves the share of future generations, especially non-renewable resources.⁽¹⁾ Despite these setbacks, developed countries have a moral obligation to adhere to environmental agendas for global security. However, the repeated failures of some international agreements have highlighted a key issue: the insufficient capacity of developing nations to conduct the necessary research and implement these tasks. This further complicates international cooperation. The problem is also a moral one, as societies and individuals must ethically manage their natural resources, particularly non-renewable ones, to preserve them for future generations.

It remains essential that States parties provide lists of their implementation of their emission inventory obligations in the required detail and immediately inform other States of any sudden situation or incident that may cause damage to their environment, thereby providing them with all the information necessary to cooperate in good faith in achieving the optimal use of resources and effectively preventing or reducing transboundary environmental impacts.⁽²⁾

Despite the holding of many international conferences to track and combat negative environmental phenomena in the African continent, the great powers have not fulfilled their financial obligations towards the continent, which has been violated environmentally, security and politically.

In this regard, the major powers are expected to inject more than \$100 billion to support the African economy to overcome the climate crises in the environmental framework, an agreement reached following the Paris Climate Summit on 12 December 2015.⁽³⁾

Section One: Weakness of Enforcement and Sanctions Mechanisms in International Law

Environmental law is of international origin, and despite the existence of many national legislations, international treaties of environmental concern have remained locally applicable, as the majority of them were bilateral, and did not amount to legislation for the protection of the environment at the international level.

(1) <https://gate.ahram.org.eg/dailuy/news/537352.aspx,15-03-1022,15,30-m>.

(2) Article 14 of the Kyoto Protocol.

(3) Comille Sarri, Le concept de résilience : dimension et portée, « Gouvernance et fragilité en Afrique et au Moyen-Orient », sous la direction de Mohamed Harkat Revue, Marocaine d'audit et de développement, 2018, p. 51-63.

Environmental law is characterized by a preventive nature, as it is based on the preservation of the environment in accordance with technical and scientific rules that may sometimes require the help of experts and specialists, and in this field, the rules and texts of environmental law are characterized by coming in the form of orders and prohibitions, but in general, they still lack the binding force or authority to bind states to them. It has not yet reached the level of the necessity of recognizing and imposing the public interest, even at the expense of the private interest of one of its States, because it clashes with the principle of national sovereignty, and those who set the rules and regulations of international law are the same ones who address them⁽¹⁾.

In the face of this reality, this international group decided to confront this problem, but the refusal of the United States of America to sign these legal principles caused it to retreat from a binding formula to a lighter one, according to which the signatory States parties undertake to reduce their emissions of greenhouse gases, even though Washington alone represents and is responsible for 53% of these greenhouse gas emissions⁽²⁾.

In fact, the internationally accepted rule is that the extent to which States are obliged to implement their obligations under international environmental conventions depends mainly on the individual will of States, in the sense that withdrawal or abandonment of a treaty weakens international environmental conventions, in general, in terms of implementation if a State that considers itself unable to carry out its functions is allowed to evade international responsibility⁽³⁾.

In any case, international jurisdiction is still optional and lacks a higher executive authority to impose sanctions on States that violate the rules of this law.

It should be noted here that the issue of the spread of environmental pollution has led to the issuance of several legislations related to the issue of the environment in many countries, as for Lebanon, Law No. 444 was issued on 29/7/2002 on the protection of the environ-

(1) Mohamed Belfadl, International Responsibility for Environmental Damage in National Legal Systems and International Conventions, PhD Thesis in Public Law, supervised by Banaf Youssef, Faculty of Law and Political Science, University of Oran, 2011–2012, p. 23.

(2) Ali Ibrahim, *The Mediator in International Treaties: Conclusion*, 1st Edition, Dar Al-Nahda Al-Arabiya, Egypt, 1995, p. 338.

(3) Mohamed Belmadioni, Termination and Suspension of International Treaties, Master's Thesis in Public International Law, supervised by Dr. Ahmed Si Ali, Hassiba Ben Bouali University of Chlef, Faculty of Legal and Administrative Sciences, 2008–2009, p. 20.

ment⁽¹⁾.

In addition, the Lebanese Constitution does not take into account the issue of the environment, despite the importance of including it in its preamble and contents, as it contributes to ensuring that positive laws adhere to environmental priorities, especially the human right to a healthy environment.

The dilemma in Lebanon lies in the lack of coordination between the various ministries, institutions and authorities related to the environment, which makes the treatment of environmental problems weak, even almost non-existent, but there are some international sources of environmental legislation, such as international conferences, conventions and treaties to which Lebanon has approved or acceded, the most prominent of which is Law No. (360) issued on 1/8/1994, which the Lebanese government has been authorized to conclude the United Nations Convention on Biological Diversity, signed in Rio de Janeiro on 5 June 1992, and Lebanon has acceded to the Montreal Protocol on Substances that Erode the Ozone Layer, ratified by Law No. 253 of 31 March 1993, and ratified the Vienna Convention for the Protection of the Ozone Layer.

In this regard, it is clear that the instability of the parameters of environmental responsibility, especially at the international level, is due to the fact that most of the legal texts of international conventions have come in general and have taken the character of clean law, and this restricts their ability to establish a legal obligation in an absolute manner, knowing that they have recognized many rights of states in the field of exploitation of their natural resources and the exercise of their powers and competences. Damage to persons and property caused by harmful encroachment on the environment, as confirmed at the Second United Nations Conference on Environment and Development, held in Brazil in 1992, in its second principle⁽²⁾ and in principle 21 of the 1972 Stockholm Conference set of principles⁽³⁾.

(1) Karima Abdul Rahim Al-Taie and Hussein Ali Al-Duraidi, *International Responsibility for Environmental Damage during Armed Conflicts*, Dar Wael for Publishing and Distribution, 1st Edition, Jordan, 2009, pp. 9–10.

(2) Rajaa Waheed Dwaidi, *The Environment: Its Scientific Concept and Intellectual Heritage Depth*, Dar Al-Fikr, Damascus, 2004, p. 182.

(3) Ahmed Hassan Abdullah, *The Economic Impacts of Environmental Pollution*, Unpublished PhD Dissertation, Cairo, Khartoum Branch, 1988, p. 109.

Section Two: Economic Disparity between States and its Impact on Compliance with Agreements

Despite progress in environmental law and renewable energy made by the European Union and some industrialized countries, poor and developing nations continue to face significant financial, technical, and legal challenges. This makes it difficult for them to achieve environmental security and sustainable development.

A major dilemma is that these nations often find it hard to pursue both development and environmental goals simultaneously. Due to low economic growth, they are unable to allocate sufficient resources to environmental management, as they must prioritize investments that drive long-term economic recovery. This highlights the crucial link between economic development and environmental sustainability.⁽¹⁾

In any case, it should be noted that primary obstacles to implementing international conventions, both domestically and internationally, are economic in nature. This is because humans consistently seek to achieve their well-being and improve their livelihood at the lowest possible cost, often without regard for other living beings. This relentless pursuit of production, even at the expense of the environment and public health, is undoubtedly a major factor in environmental degradation.⁽²⁾

It is realistically known that industry is the primary cause of pollution and environmental problems, as well as the technological development that has caused environmental imbalances due to atomic explosions, nuclear waste and various chemical industries, which have led to great pollution, since part of the difficulties that hinder the effective protection of the environment are borne by nature and its factors, and the phenomena they contain that have caused a disturbance of the environmental balance and the occurrence of environmental problems, such as droughts and earthquakes, as a result of extreme heat in which humans have no direct involvement⁽³⁾.

In the area of building the capacity of Governments to respond to energy and environmental issues, the goal of ensuring environmental sustainability has failed to achieve sus-

(1) United Nations Environment Program Report, United Nations, New York, March 2008, pp. 52–64.

(2) Belkheir Intissar, The Conceptual Framework for Environmental Protection, Proceedings of the Conference on Mechanisms of Environmental Protection, Algeria, December 30, 2017, Al-Jeel Center for Scientific Research, Tripoli, Lebanon, p. 18.

.Belkheir Intissar, *Ibid.*, p. 21 (3)

tainable development progress International efforts in this direction are still active in this direction despite the obstacles, to ensure environmental security, which is one of the main pillars of global security⁽¹⁾.

Second Requirement: Case Study: Paris Agreement on Climate Change

With the failure of the 1997 Kyoto Protocol recognized by most States of the world, it became necessary to find a binding convention for all States, and several proposals were made at the conferences of the States parties for the forms of legal formulation to be adopted⁽²⁾.

Indeed, the Paris Agreement, the largest international gathering of States parties, has been unanimously agreed upon to address the issue of climate and to develop a solution to its global issue⁽³⁾.

Section One: Objectives of the Convention , Successes and Challenges Faced Since Its Signing

The Paris Climate Agreement, as outlined in Article 2, aims to strengthen the global response to the threat of climate change within the context of sustainable development and poverty eradication. To achieve this, it calls on signatory states to keep the global average temperature rise well below 2 degrees Celsius above pre-industrial levels, while also pursuing efforts to limit the increase to no more than 1.5 degrees Celsius.

In addition to this primary goal, the agreement seeks to support countries' capacity to adapt to the adverse effects of climate change and to enhance their resilience. This is achieved by financing development projects and reducing greenhouse gas emissions. All of this is done while upholding the principle of common but differentiated responsibilities, which recognizes the varying capabilities and commitments of each state.⁽⁴⁾

(1) Report of the World Summit on Sustainable Development held in Johannesburg, South Africa, in 2002; Report of the International Conference on Financing for Development held in Mexico in 2002; and Report of the Fifteenth Conference of the Parties to the United Nations Framework Convention on Climate Change, held in Copenhagen from 7–18 December 2009.

(2) Conferences of the Parties to the 1992 Framework Convention:

Copenhagen Conference (Denmark), December 2009. Cancun Conference (Mexico), December 2010.

Durban Conference (South Africa), 2011. Doha Conference (Qatar), 2012.

Warsaw Conference (Poland), 2013. Lima Conference (Peru), 2014.

(3) Géraud de Lassus St-Genès, L'accord de Paris sur le climat: Quelques éléments de décryptage, Revue Quebecoise de droit international, volume 28-2, 2015, p. 28.

(4) Article (2) of the Paris Climate Agreement.

The negotiations on the Paris Agreement were aimed at agreeing on a legally binding agreement that is equitable, balanced and ambitious, and it would be a step forward in climate protection. Further, this is what we will know by presenting the positive and negative points in their fate and legal value, as follows:

First: Advantages of the 2015 Paris Agreement

The Paris Agreement has many positive points in the field of climate protection, but we will focus on the most important ones, which are:

The application of the Convention is a bottom-up approach to pledges and revisions, leaving States parties with considerable leeway to choose the level of mitigation efforts they are undertaking to protect the climate and the nature of the target⁽¹⁾.

Distinguish between the obligations of developed countries and developing countries in a fair and flexible manner, as the Convention indicates that reductions will be made on an “equitable basis”, meaning that developing countries must adopt mitigation targets of a similar nature to those set by developed countries⁽²⁾.

The possibility of stabilizing the climate system, as States parties have succeeded in building a legal framework for the future, which will achieve a certain degree of stability for the climate system⁽³⁾.

It is true that the phrase did not include a specific date, but at least it referred to a time not to 2050, and therefore the Paris Climate Agreement sets a time frame of 35 years, a relatively long period of time for States parties to consider implementing their climate protection commitments, which means that the Convention can be applied for several decades⁽⁴⁾.

Second: Disadvantages of the 2015 Paris Agreement

In terms of compliance, there is also a gap between the long-term global goal and climate change mitigation policies, since according to article 2 of the Paris Climate Agreement⁽⁵⁾,

(1) Article (4) of the Paris Climate Agreement, 2015. Géraud de Lassus St-Genès, op,cité, p. 41.

(2) Géraud de Lassus St-Genès, op,cité, p. 45.

(3) Article (4), Paragraph 1, of the Paris Agreement, op. cit.

(4) Géraud de Lassus St-Genès, op,cité, p. 49.

(5) Radoslav S., Dimitrov, The Paris Agreement on climate change: Behind closed doors, global environmental politics, published by The MIT press, volume 16, Number 3, August 6, p. 8.

the goal is to keep global temperature rise well below 2 degrees Celsius above pre-industrial levels.

It should be noted that, through NDCs, the overall ambition and content of the outcome are uneven, with a group of independent experts of the view that, if all these NDCs are fully implemented, the result will still be below 2 degrees Celsius by a wide margin, and the global temperature in 2100, projected to be around 2.7 degrees Celsius, is a cause for concern⁽¹⁾.

The report from the United Nations Framework Convention on Climate Change (UNFCCC) shows that current levels of climate ambition are far from putting the world on a path that meets the goals of the Paris Agreement, and that while most of the countries mentioned in the report have raised their individual ambition ceiling to reduce greenhouse gas emissions, the combined effect puts them on the path to reducing emissions by just 1 percent, by 2030, compared to 2010 levels. United Nations Secretary-General António Guterres, in a warning to our planet, shows that governments are not close to the level of ambition required to limit climate change to 1.5 degrees Celsius, and called on the main parties causing these emissions to accelerate the achievement of more ambitious targets, as there is a problem that all countries parties must solve during the next meeting scheduled to be held in Glasgow in November 2021, especially that the Paris Climate Agreement is flexible enough to create the ground for reaching an agreement between all States Parties to achieve this Convention.

During the Paris Agreement negotiations, States particularly vulnerable to the adverse effects of climate change hoped to establish a mechanism to compensate for damage caused by extreme weather events, but this was opposed by developed countries, as it was agreed that article 8 of the Paris Agreement could not create a basis for any liability or compensation, which led some States to disavow this agreement immediately after its adoption⁽²⁾.

Some also argue that the 2015 Paris Climate Agreement does not include punitive measures for countries that fail to implement their commitments, which leads to questioning

(1) Mohamed Rahmouni, "Aspects of Success and Weakness of the Paris Agreement in International Climate Protection," Al-Bahith Journal of Academic Studies, Djilali Liabes University, Sidi Bel Abbes, Vol. 6, No. 1, 2019, p. 682.

(2) Paragraph 52 of the lecturer (1/CP.21). The position of Nicaragua in: Sophie Lavalle, Sandrine Maljean-Dubois, L'Accord de Paris: fin de la crise du multilatéralisme climatique ou évolution en clair-obscur? op. cit., p. 3.

their legal value.

Section Two: The Future of International Environmental Law

There is no dispute that the efforts of the international community in the context of addressing environmental threats that pose a threat to nature, human beings and global security have been limited to the issuance of many international and regional conventions for the protection of the environment completely.

In light of the recognition of the impact of humanitarian activities on global environmental changes, the question remains: why is the world hesitant in the framework of environmental accountability, and the negotiations have not made any real progress?

First: The need for more binding legal frameworks

The preamble to the Charter of the United Nations affirms that the peoples of the United Nations undertake to live together in peace and good neighbourliness, pursuant to the text of Article 74 thereof, and this principle is established in international law⁽¹⁾. Refrain from carrying out any act on its territory that would result in harm to the interests of other States, and secondly, the State must take the necessary precautions to prevent its subjects from carrying out any acts whose effects may extend to the territories of neighboring States⁽²⁾. The preamble to the United Nations Charter affirms that member states are committed to living together in peace and good neighborliness. This principle is a cornerstone of international law, establishing two key obligations for a state. First, a state must refrain from carrying out any act on its territory that could harm the interests of other states. Second, it must take necessary precautions to prevent its citizens from performing actions whose effects could extend into the territories of neighboring states.

The 2010 Cancún Conference marked a significant step toward a global climate agreement, with the UN Secretary-General at the time describing its results as “an important success the world needs.” At the conference, governments agreed on a set of measures, including a formal framework for climate change mitigation with greater accountability for commitments. They also adopted critical legislation for protecting the world’s forests.

(1) Article (74) of the Charter of the United Nations.

(2) Islam Mohamed Abdel-Samad, International Protection of the Environment from Pollution in Light of International Agreements and Provisions of International Law, New University House, Alexandria, 2016, p. 158.

The resolutions called for a commitment from all parties to transparency and constant monitoring of greenhouse gas emissions. Furthermore, they emphasized the need for international climate protection to be a priority over the self-interests of individual states, urging countries to develop national legislation in line with international conventions. To ensure compliance, the agreements allowed for the use of economic pressure on countries that failed to meet their obligations. The need for increased climate finance for adaptation and resilience programs was also highlighted, with a focus on protecting against major climate events like floods and sea level rise. Estimates suggest that the required amount for climate finance could rise to \$300 billion by 2030 and then to \$500 billion by 2050.⁽¹⁾ Therefore, the concept of justice for future generations is also a key part of this global effort. There is a growing movement to hold entities accountable for environmental damage, with proposals that include transforming industrial sectors into environmentally sustainable models and imposing taxes on high-carbon foreign products.

Second: The Role of Non-Governmental Organizations and International Courts in Supporting Compliance with Environmental Laws

International organizations, both global and regional, general and specialized, have created a mechanism and regulatory framework to unify and coordinate international environmental protection efforts. However, many of these organizations' founding charters have legal ambiguities that can hinder their ability to perform certain functions in environmental conservation and reduce the severity of related problems.

The judiciary is one of the most crucial tools for ensuring compliance with environmental rules and making environmental protection laws more effective. This is a strategy frequently employed by non-governmental organizations (NGOs) in the environmental field.

(1) "The Adaptation Summit in January 2021, sponsored by the Government of the Netherlands, really stood out as a high-level meeting that went beyond 'squares' to ensure that participants could speak with one another and with a wider audience about climate action." unpartnerships.un.org

The World Wide Fund for Nature (WWF), for instance, has a history of filing numerous lawsuits to protect the natural environment. A notable example is a case it brought before Austrian courts to stop a massive hydroelectric dam project in the Danube region. The project was planned to be built on a huge forested area unique to Europe. The goal of canceling the project was successfully achieved following two decisions by the Austrian Supreme Court in January 1985 and September 1986, marking a significant victory for the WWF.⁽¹⁾

In another example, in 1977, Friends of the Earth filed a lawsuit against the City of New York City to oblige it to respect the standards of air protection because the level of air pollution in the city was five times the national permissible level.⁽²⁾

It is clear that, in a dispute over the emission of toxic gases from the Trail plant and its crossing of the border between the United States of America and Canada in 1930⁽³⁾, the arbitral tribunal ruled in 1941 that: “In accordance with the rules of international law... No State shall use or permit the use of its territory in such a way as to result in harmful gases entering the territory of another State, causing damage to that territory or to the property or persons thereon, such consequences would be of some magnitude.”

In the Norwegian Fisheries in the Corfu Strait case of 1949, the International Court of Justice affirmed that the jurisdiction of a State over its territory is not absolute, and that the State has an obligation not to use its territory to prejudice the rights of other States⁽⁴⁾.

It seems clear that there is an obligation on States not to cause damage to the environment, as explained by the International Law Commission⁽⁵⁾, which has been keen to make this obligation general and subject to minimizing the risks of causing transboundary damage, as has already happened in the city of Kiev, Chernobyl region of the former Soviet Union in 1986, which led to the volatilization of a large amount of radioactive material, and the atomic dust was transmitted into the atmosphere, reaching the States of Sweden, Germany, Italy and others⁽⁶⁾.

(1) Hajjin Soufiane, The Role of Non-Governmental Organizations in Environmental Protection, Master's Thesis in Environmental Law, Djilali Liabes University, Faculty of Law and Political Science, Academic Year 2012–2013, Sidi Bel Abbes, p. 114.

(2) Hajjin Soufiane, *Ibid.*, p. 115.

(3) P. Daillier, M. Forteau, et A. Pellet, *Droit international public*, op. cité, p. 912.

(4) www.icj-cij.org/case-related/1/001-19490409-JUD-1-00-EN.pdf.

(5) P. Daillier, M. Forteau, et A. Pellet, *Droit international public*, op. cité, p. 1420.

(6) P. Daillier, M. Forteau, et A. Pellet, *Droit international public*, L.G.D.J., 8 édition, 2009, p. 1419. Abdelhamid Moussa Al-Saleb, *The General Theory of the Principle of Good Neighborliness in International Law*, Dar Al-Nahda Al-Arabiya, Cairo, 1st Edition, 2003, p. 100.

Conclusion and Recommendations:

1. Summarizing the results:

The problem of climate change is one of the most prominent global problems, and it poses a threat to all humanity, so it has received the attention and keenness of the international community to put an end to it through international cooperation and taking effective measures to limit the rise in temperatures, so the international community has made relentless efforts and held conferences and agreements for this purpose, and the countries agreed, in the end, on the need to adopt a new legally binding convention, which includes international obligations and provisions, to put a definitive end to the phenomenon of climate change, so the Paris Agreement of 2015 was adopted. It is a historic and unprecedented event, as it includes commitments for all countries, and contains provisions on mitigation policy, climate finance, transparency, and other sections on adaptation, capacity building, and technology transfer, as the aim of this treaty is to put an end to the increase in global temperature to pre-industrial levels.

It should be noted that, although there are some weaknesses in the Convention, it remains a compromise, and its success or failure depends on the commitment of States and their fulfilment of their commitments, as the problem of implementing its provisions is not legal, but political, since the climate imperative requires a strong will from all States, especially the major countries that emit the most polluting gases, which constitute more than 80% of global emissions. Thus⁽¹⁾, subjection to political considerations would lead to a constant change in the structures and competencies entrusted with the protection of the environment in the State, as well as the international environmental bureaucracies designed to implement environmental policy within the framework of international organizations and multilateral conventions, whose activity involves ensuring the implementation of their territorial or extraterritorial obligations when exploiting natural resources as a tool to prevent attempts to intervene by States under the pretext of protecting and preserving the environment from pollution, which constitutes a collective, persistent and more serious crime than the crimes Individuality with its results and effects.⁽²⁾

(1) Rapport 2019 sur l'écart entre les besoins et les perspectives en matière de réduction des émissions, www.unenvironment.org/resources/emissions_gap_report_2019.

(2) Yasser Khudr Al-Huwaishi, The Principle of Non-Intervention in World Trade Agreements, PhD Dis-

2. Recommendations to improve the role of international law in protecting the environment:

Develop environmental legislation that embodies the international will to preserve a healthy environment.

Forming a judicial body specialized in environmental issues.

Introducing the article of environmental law among the basic articles in the public as well as private law branch.

Determine the responsibilities and penalties in case of violation of the environment, considering the provisions of the Civil Code and the Penal Code in force.

Adopting frameworks to control violations and monitor good implementation.

Imposing administrative measures by the concerned ministries.

The need for international accountability for violations of environmental commitments, especially since countries have committed themselves to accepting and taking the initiative to ratify the Paris Climate Agreement of 2015, where the number of 196 States parties has reached a total of 196 countries, together on the complex issue of how to protect our climate.

sertation supervised by Dr. Ibrahim Mohamed Al-Anani, Faculty of Law, Ain Shams University, Egypt, 2001–2002, p. 431.

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