



## RESEARCH ARTICLE

## Climate Change and Environmental Refugees: Addressing within the Framework of International Environmental Law Principles

Hajar Abdalameer Ali<sup>1\*</sup>, Hadi Naeem Al-Maliki<sup>2</sup><sup>1,2</sup> University of Baghdad, College of Law, Iraq**ARTICLE INFO**

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**ABSTRACT**

Asylum and migration due to environmental changes are among the greatest humanitarian challenges at the present time, as individuals are forced to leave their homes in the context of disasters, of natural or human origin, and those who are forced to cross international borders to escape these dangers, need effective protection on the part of the international community, and face... Limited legal options in light of the existing rules of international law. Relying on preventive and precautionary measures contributes to preventing the number of people fleeing from the effects of climate change from increasing, and supporting affected communities to reduce the negative effects of climate change.

**\*Corresponding Author:**

Hajar.Abd2204m@colaw.uobaghdad.edu.iq

**INTRODUCTION**

The process of developing an appropriate legal framework to deal with international migration resulting from environmental changes is more controversial than is the case in most international cross-border issues, as there is not a single country in the world today that is not affected by the movement of millions of people, between migrants and refugees, for various reasons. The driving force behind this movement, as environmental changes and increased global warming lead to a disproportionate impact on countries, and developing regions and countries suffer from the most severe consequences resulting from these changes, such as the impact on agricultural activities, the lack of access to clean water, as well as the rise in surface area. The sea, or the increase in the length of dry seasons and other negative effects of climate change that push people to leave their homelands involuntarily.

For a long period of time international environmental law, and the laws governing asylum and migration, were separate branches of international law, with little, if any, interaction between them, but as the humanitarian consequences and negative impacts of climate change on human movement

continue to emerge, the connection between Both areas, with the possibility of protecting this category through expanding the application of some basic principles and rules in international environmental law.

### **Definition of environmental asylum**

The official appearance of the term environmental refugee dates back to the United Nations Environment Program report written by El-Hinnawi in 1985 entitled “Environmental Refugees”, which defined them as “environmental refugees” as “people who have been forced to leave their place of origin, permanently or temporarily, due to a significant environmental disturbance (Natural or human-caused) that threatens their existence, or seriously affects their lives. “Environmental disturbance observed here means any physical, chemical or biological changes in an ecosystem, or source of essential resources, that make it temporarily or permanently unsuitable for supporting human life.”(El\_hinnawi, 1985)The definition developed by Al-Hinnawi has been the most widely used definition of the category of environmental refugees for many years, and has had great influence in the political and academic communities. This category is also referred to as “survival migrants,” meaning they are “a group of people outside their country of origin due to an existential threat, for which they cannot access treatment or a local solution.” (Betts, 2013, p. 5).

These definitions tend to be general and ambiguous in some aspects. They do not provide criteria for distinguishing between types of environmental refugees, nor do they distinguish between voluntary and forced movements, or distinguish between movements whether internal or international, which makes the concept of the environmental refugee characterized by ambiguity.(Bate, 2002)This led to the emergence of many attempts to establish narrower definitions for this category, such as an attempt to distinguish and separate between environmental migrants and environmental refugees, as the use of the term environmental migrants refers to a group of people who moved by choice from a region, so a distinction is made between the two categories on the basis of movement, whether voluntary or coercive(Ghanem, 2013, p. 36)Another approach was to distinguish between environmental refugees and climate change refugees, in addition to attempts to divide environmental refugees into categories and types. Expanding the definition of this category leads to creating larger numbers, and the opposite is true if a narrower definition is established. (Suhrke & Visentin, A, 1991, p. 74). It has been adopted by the International Organization for MigrationIOM designation of environmental migrants as “people or groups of people who, for compelling reasons, due to sudden or gradual changes in the environment, which negatively affect their lives or living conditions, are obliged to leave their usual homes, or choose to do so, either temporarily or permanently.” And those who move inside or outside their country.” (McKinley, 19 February 2008, p. 43). The International Organization for Migration provided this definition to include “voluntary” movement alongside “forced” movement. On this basis, the term environmental migrant was adopted, instead of environmental refugee, in order not to focus exclusively on forced movement, and to include those who voluntarily decide to abandon their freedom. Their homes due to environmental or climatic pressures, that is, it requires a certain degree of voluntariness that is not usually within the reach of the refugee, as concepts such as “environmental refugee” or “environmentally displaced” are often based on the idea of forced displacement. ((IOM) & Permanent Mission of Greece, 2009, p. 21).

Therefore, we can define environmental refugees as people who are forced to leave their places of origin, permanently or temporarily, due to anthropogenic activities or natural phenomena, slow-onset or sudden, that affect their lives, livelihoods, and their ability to meet their basic needs. The main gap lies in the lack of a common or legally binding term to refer to people who move due to environmental and climate changes.

### **Climate change and environmental refuge have a complex causal relationship**

Climate change is a major issue of the current century, and it has many clear impacts on human societies (Fanous and Mustafa Salem Abd, 2023). Despite the belief of some, especially politicians and decision-makers, that climate change is a myth and not a reality, this phenomenon can be attributed to many reasons, some of which are natural, and the other is a result of human behavior. (Singh, 2013, p. 3). Climate change is a group of large and rapid disturbances that occur to the climate, as a result of the rising temperature of the planet (Al-Aziz, 2023, p. 155). The effects of this phenomenon are varied, the most important of which are the increase in heat waves, the melting of the ice cover, sea level rise, and ocean acidification, and these effects appear on natural and human systems alike. (Rain, 2023, p. 111).

Many experts accept climate change as one of the factors that influence the decision to migrate, but its perception as a major cause of human migration has been questioned, given the multi-causal nature of migration, which can result from a combination of different push and pull factors, such as economic, social and political factors. The process of establishing a direct causal relationship represented a major challenge for experts in the field of migration and natural sciences (Laczko & Christine Aghazarm, 2009, p. 17). The discrepancy in opinions is due to the difference in academic approaches. Just as most classical theories on migration tend to ignore the environment as a driver of migration, most theories on environmental management ignore migration flows. This discrepancy has led to the emergence of two schools that represent two different points of view. (Baldwin, Chris Methmann, & Delf Rothe, 2014, p. 122), which are the views associated with the natural sciences on the one hand, the extreme or (maximum) school, and studies related to migration and the social sciences on the other hand, the skeptical or (minimum) school. The first approach is that environmental migration is a direct result of environmental change. They were the first to study migration due to climate, since the beginning of the eighties, and they were mainly environmental scientists. This point of view is characterized by giving priority to nature, and it does not give importance to the social and economic aspects of the migration process. It eliminates the possibility of human societies adapting to environmental pressures (Bettini, 2013, p. 24).

According to this trend, hundreds of millions of people will be forced to migrate due to climate change, and these estimates may rise to one billion people (Gonzalez, 2021, p. 121). The discourse followed by extremists focuses on the very large numbers of people who will be forced to migrate due to climate change to show how dangerous this phenomenon is. The most prolific author in this direction is Norman Myers. In 1993, Myers wrote that by 2050 there will be 150 million people displaced due to climate change, and Myers has revised these numbers and assumed that it will reach 250 million people by 2050. (Behrman & Avidan Kent, 2018, p. 92).

In 2017, the Italian newspaper *Last Tempa* chose the title "One Billion Climate Refugees by 2050" to highlight the problem of climate migration and displacement. (Giovannini, 2017), the article cites figures from a report *The Lancet Countdown*, which indicated that the total number of people vulnerable to migration due to the consequences of climate change, may rise to one billion people by the end of the century, if more measures are not taken to mitigate and adapt to climate change. (Countdown, 2017, p. 14). The numbers contained in studies of the upper limit were used by the scientific literature and international organizations alike, as the International Organization for Migration estimated that by 2050 there will be 200 million environmental refugees. (Laczko & Christine Aghazarm, 2009, p. 5). This falls halfway between Myers' initial estimates and the more extreme numbers that spoke of 700 million or one billion people who will be forced to migrate from their homes due to environmental pressures. (Human tide: The real migration crisis, 2007, page 5).

The figures above follow a climate change scenario, based on an increase of 4°C or more by 2100 (Khalaf, 2019, p. 271). In this regard, the Intergovernmental Panel on Climate Change issued its sixth report in 2021. The report concluded that the Earth is witnessing a rise in temperatures

unprecedented in 125,000 years, and that carbon levels in the atmosphere have reached their highest levels in two million years. It warned that global warming could exceed 1.5 degrees Celsius above pre-industrial levels in about a decade, unless rapid and widespread reductions in greenhouse gas emissions are made. (Nyberg, Christopher Wright, & Vanessa Bowden, 2023, p. 3).

As for the other trend represented by skeptics, or the minimalist school, it relies heavily on studies in the field of migration and social sciences. They see migration as a phenomenon that does not have only one cause, and supporters of this trend tend to see environmental change as a contextual element that may contribute to migration. Some come to the conclusion that there is no climate or environmental threat that inevitably leads to migration. They risk not recognizing the importance of environmental aspects in human systems, and in particular migration processes (Singh, Bendangwapang Ao, & Anamika Yadav, 2023, p. 191).

With the issuance of the foresight report Foresight (2011) (2011) It can be said that the scale of disagreement between the two schools has begun to tilt in favor of the proponents of the minimum, as sufficient evidence has been presented on the multiple causal nature of climate-induced migration, and as Castles pointed out, "Migration scholars must realize the ability of climate change to cause "Fundamental changes in the nature of human mobility, just as ecologists need to recognize the complex factors that drive some people to embrace migration as part of their survival strategies." (McAdam, 2010, p. 243).

In the process of attributing a causal relationship between human movement and climate change, the latter are viewed as "threat multipliers," that is, as they exacerbate pre-existing vulnerabilities, although it is indisputable that climate factors have, and will increasingly have, an effective role. In determining migration flows, it is also true that many other factors must also be taken into account. However, the question of the extent to which environmental factors work with other driving factors to influence human movement has not yet been resolved (Mayer & Crépeau, 2017, p. 29).

Despite the complexity of the causal relationship, and the lack of consensus among scientists on considering environmental factors as a main driver of human movement, it does not negate the consequences of climate change in terms of its effects on human migration, and these consequences become more severe in developing countries, which suffer from many weaknesses. Already existing, as climate change in these countries exacerbates the difficult situation of the population, prompting them to migrate to other places, seeking adequate shelter and possible livelihoods.

### **Addressing environmental asylum in light of the basic principles of international environmental law**

International environmental law provides an important scope for providing international protection for people fleeing the effects of climate change, through several relevant principles, which we will discuss as follows:

#### **First: The Principle of Non-Harm**

The emergence of this principle dates back to the 1941 Arbitration Court decision in the Smelter Case Trail Smelter between Canada and the United States of America, in which the arbitration court affirmed that "no State shall have the right to use or permit the use of its territory in such a way as to cause damage by vapors to the territory of another State, or to property or persons therein..." (Al-Hafiz, 2007, p. 131), as stated in the Stockholm Declaration on the Human Environment of 1972, which stated that "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, in accordance with their environmental policies, and have the responsibility to ensure that activities within their jurisdiction or control do not cause harm to the environment of other countries, or areas located outside the borders of their national jurisdiction" (Declaration Stockholm (1972), and the principle of

doing no harm was emphasized in the second principle of the Rio Declaration on Environment and Development of 1992, as stated in many binding instruments, including, for example, the Vienna Convention for the Protection of the Ozone Layer of 1985, which stated that States parties, The duty to take the necessary measures to protect human health and the environment, from the harmful effects of human activities (Vienna Convention, 1985; Rashid et al., 2023), as well as Article 207 of the 1982 United Nations Convention on the Law of the Sea (Convention of the Sea, 1982; Kanval et al., 2024).

This principle is part of customary international law (Kitan and Mahmoud, 2021, p. 350) This was confirmed by the International Court of Justice (ICJ) In its 1996 Advisory Opinion on the Legality of the Threat and Use of Nuclear Weapons, it emphasized that respect for the environment of other states or areas outside their national control “has become part of international law relating to the environment.” (Fitzmaurice, S., & crampin, 2022, p. 54). This principle places legal restrictions on the rights of states with regard to activities that take place within their territories or under their jurisdiction, and is depicted as including two elements: the negative obligation not to cause environmental damage in the territories of other states, and the positive obligation of taking due care to prevent activities that cause Serious transboundary harm (Rajamani & Peel, 2021, p. 272) The International Law Commission has interpreted the scope of the non-harm rule, in the draft articles of the International Law Commission on the prevention of transboundary harm resulting from hazardous activities, as it clarified that “harm” may be caused to persons, property, or the environment, and it also established the scope of “serious harm.” Which may take the form of a “high probability” of causing significant transboundary harm, and a “low probability” of causing catastrophic transboundary harm (International Law Commission, 2001).

In order for the responsibility of a state to arise for unlawful acts, Article Two of the International Law Commission stipulates, regarding the responsibility of states for internationally wrongful acts (Al-Muezzin and Al-Maliki, 2021, page 119) However, the act causing the damage must be attributed to the state, and the act must constitute a violation of an international legal rule applicable to the state at that time. (Crawford, 2002, p. 81) In the context of responsibility for damage resulting from climate change, the state’s responsibility arises in the event of its failure to take the necessary measures to mitigate its emissions, whether the source of the obligation is customary international law, that is, the obligation of states under the principle of doing no harm, or under their other treaty obligations in force, as This is related to the behavior of the state, and this behavior can be represented by the state not implementing the laws and policies that regulate its emissions, or actually announcing or contributing to illegal behavior. In industrialized countries, these gases are emitted mainly from private entities in the state, and this does not require the establishment of responsibility. In this regard, the state must be aware of all the consequences related to cross-border damage, as awareness of the general consequences of the act or omission is sufficient. (Goral, 2014, p. 33).

However, it may be difficult to prove a specific violation of an international obligation in the case of climate change, and the damages resulting from it, as climate change and the migration resulting from it are a continuous and interconnected process, and cannot be traced back to a specific and isolated incident or cause. Therefore, proving the state’s responsibility in accordance with The principle of doing no harm, especially towards individuals fleeing the effects of climate change, and identifying actions that caused serious harm, or led to the loss of territory, such as rising sea levels, for example, represents a major challenge, as the current prospects for using the principle of doing no harm in the context of environmental migration appear bleak to Somewhat (Jolly & Ahmed, 2019, p. 98).

Based on the above, although it is difficult to apply this principle in practice, it cannot be considered irrelevant, as it represents a guiding framework for the responsibility that countries must bear towards the damages they have caused, resulting from anthropogenic climate changes, including The

negative impacts experienced by individuals in the most vulnerable areas, as states today distort their full knowledge and understanding of the consequences and implications of their actions.

### **Second: The Precautionary Principle**

Principle 21 of the Stockholm Declaration is the rationale for the precautionary principle in international environmental law, as the prohibition of environmental damage comes from the realization of the necessity of avoiding and preventing damage rather than repairing it. (Al-Maliki and Al-Janabi, 2013, p. 8) The main difference between the principle of non-harm and the preventive principle is that the principle of non-harm arises from respect for and application of sovereignty, through the prohibition of causing cross-border harm, while the preventive principle seeks to reduce environmental damage as a goal in itself, through a commitment to proactive action, which involves positive obligations to exercise due diligence and take effective measures to protect and preserve the environment (Duvic-Paoli, 2018, p. 54).

The duty of preventive action occupies an important position in international environmental law (Mohamed, Rateeb, and Abdel Hafeez, 2022, p. 226) The International Court of Justice confirmed in the pulp mills case Pulp Mills The principle of prevention is one of the customary principles in international law. Its origins go back to the due diligence required of every state in its territory, which means taking appropriate measures to prevent the occurrence of serious harm. These measures are not intended to guarantee the complete prevention of harm, but rather the state of origin must, to make every effort to reduce these risks to the minimum possible, as the obligation to prevent is closely linked to procedural measures, including the requirements to conduct an environmental impact assessment, and the Court concluded in the case of *Costa Rica v. Nicaragua* that “it may now be considered a requirement under public international law, Conduct an environmental impact assessment where there is a risk that the proposed industrial activity will have a significant negative impact in a cross-border context... (Sands & Peel, 2021, p. 201) Therefore, in order for a state to fulfill its obligations to exercise due diligence and prevent significant transboundary environmental damage, it must, before embarking on any activity that would negatively impact the environment in another country, ensure that cross-border damage is not possible. Which leads to the need to conduct an environmental impact assessment (Fitzmaurice, S., & crampin, 2022, p. 56).

This principle is used to address a group of environmental problems, such as oil pollution, water pollution, and climate change, as the preventive approach is considered closely related to climate change issues, by seeking to implement mitigation policies that are an attempt to implement this principle. (Abdul et al., 2020, p. 10), on that; There is no doubt about the importance of this principle with regard to environmental migration, as measures to prevent the negative effects of climate change are one of the most effective policies to address environmental migration. Preventive measures include the ability to address existing problems locally, by enhancing the ability of communities to withstand, in the face of the effects Climate change. The preventive approach also has an important impact in preserving the existence, identity, and culture of affected communities, as is the case with residents of island states and places that clearly suffer from the effects of climate change, and in which asylum becomes a necessity and inevitable. Actions contribute Preventive measures in establishing legal guarantees for their basic rights to settle in other, safer locations, through planned resettlement and relocation. (Kent & Behrman, 2018, p. 85).

### **Third: The Principle of Precaution**

The emergence of the precautionary principle can be traced back to domestic legal systems, specifically West German environmental law, in the 1980s, and internationally, in the 1995 Rio Declaration, which states “...in the event of a risk of serious or irreparable damage “The lack of full scientific certainty should not be used as a reason to postpone taking cost-effective measures to prevent environmental degradation” (Rio Declaration, 1992; Jam et al., 2014), as stated in many other

international instruments related to environmental protection (Al-Sabbagh, 2020, p. 190). The precautionary or precautionary approach includes three elements: The threat of environmental damage, uncertainty, and action, as it requires sufficiently proactive and early action to prevent environmental threats, even if they lack scientific certainty, which represents a positive step away from the traditional approach that requires countries to act based on scientific knowledge only. (Sands & Peel, 2021, p. 220).

The principle of precaution shares the same goal with the principle of prevention, which is to avoid environmental damage, by taking early measures to prevent damage or reduce its negative effects. However, the difference between the two lies in that the principle of prevention applies to known or confirmed risks that can be evaluated. The precautionary principle is applied in circumstances where the nature, extent, or consequences of a particular environmental threat are scientifically uncertain. (Rajamani & Peel, 2021, p. 303). On that; The main advantage of applying the precautionary principle to protect environmental refugees is that this principle does not make it necessary to prove the causal relationship between climate change and human migration, because certain scientific evidence is not required, and the lack of it cannot be used as an excuse for not taking the necessary precautionary measures. (Rosignoli, 2022, p. 58).

Hence, the application of the precautionary principle, along with the principle of precaution, by countries, to prevent the negative effects of climate change on human societies, contributes to protecting them from potential environmental harm, whether by applying the precautionary approach, when the risks are of a potential or assumed nature. Such as cases of natural disasters, which are characterized by unpredictability and lack scientific certainty in terms of their effects and consequences on individuals, due to the complexity and volatility of natural phenomena and how the human element interacts with them. On the other hand, the application of the preventive approach is more relevant in cases involving a degree of practical certainty, in particular with regard to anthropogenic climate change, since at present, due to increasing evidence on the effects of climate change on human movement, in particular reports provided by the Intergovernmental Panel on Climate Change, which demonstrate with high confidence this relationship, requires The matter is to take advance preventive measures and rely increasingly on a preventive approach in the context of climate change and its effects on human migration (Rajamani & Peel, 2021, p. 306).

#### **Fourth: The polluter pays principle**

This principle is one of the economic principles that work to allocate the costs of pollution control, and it was first formulated through the 1972 recommendation regarding guidelines related to international economic aspects of environmental policies adopted by the OECD Council. (OECD) (Grossman, 2006, p. 5) This principle means that the polluter must bear the costs of implementing pollution prevention and control measures, and distribute economic obligations regarding activities harmful to the environment. (Al-Maliki and Al-Janabi, 2013, p. 16) This principle is reflected in the Rio Declaration, which states: "National authorities should seek to encourage the internalization of environmental costs and the use of economic tools, taking into account the approach that the person responsible for pollution should, in principle, bear the cost of pollution." Taking into account the common good..." (Rio Declaration, 1992) as stated in many binding international instruments.

In the context of climate change and its resulting effects, especially environmental asylum, this principle can be applied and used as a main justification for any attempt to regulate migration and asylum resulting from climate change. (Rosignoli, 2022, p. 59) Some have suggested the possibility of establishing a financing mechanism to share the burdens in the field of climate change and associated migration, and linking the extent of countries' contributions to this mechanism through the level of emissions of greenhouse gases responsible for climate change for each country, as a basic indicator in sharing these burdens, while it is proposed Others, applying the polluter principle pays, through

the resettlement of environmental refugees in responsible countries, which have contributed significantly to greenhouse gas emissions and climate pollution, as these countries must bear responsibility towards people who are refugees for environmental reasons. (Ahmed, 2018, p. 16).

### **Fifth: The Principle of Common and Differentiated Responsibilities**

The development of this principle is due to the application of the rule of fairness in international law, and the recognition that the special needs of developing countries must be taken into account when interpreting and applying the rules of international environmental law. (Sands & Peel, 2021, p. 233) This principle includes two elements, the first relates to the joint responsibility of states to protect the environment at the local, regional or international level and to take the necessary measures to respond to environmental problems. (Messenger, 2023, p. 293) The second relates to the necessity of taking into account certain circumstances related to the extent of each country's contribution to creating a specific environmental problem or threat, and its ability to prevent and reduce this threat, as according to this principle countries are jointly responsible for environmental damage, but in a different way. And differentiated (Jassem, 2023, page 9) The Rio Declaration stipulates that "States shall cooperate in the spirit of global participation... In view of the different contributions to global environmental degradation, States shall have common, albeit differentiated, responsibilities..." (Rio Declaration 1992; Jam et al, 2013).

Adopting the differentiated joint responsibility approach in the issue of environmental refugees leads to rethinking the traditional rules of responsibility that face many difficulties in application, in issues of climate change and migration resulting from it, as they require searching for a clear causal chain and a direct relationship between the perpetrators and the victims, and the conduct of Regardless of the main culprit in the problem of climate change, which is the social structures and capitalist system, which have been able to systematically generate environmental damage for many decades. (Eckersley, 2015, p. 489) The failure to apply the traditional liability system can be found in the objection of *Inuit v. United States of America*, which was rejected by the Inter-American Commission. (Alam & Atapattu, 2015, p. 462), due to the inability to link a single set of climate change responsibilities to just one polluter, as the lack of a clear causal relationship between polluters and environmental refugees is often cited as an argument against establishing a legal framework for environmental asylum resulting from climate change. (Kent & Behrman, 2018, p. 83).

We conclude from the above that this principle is based on the idea that countries in the developed world have contributed more than others to global environmental deterioration, and at the same time, they are able to allocate more resources to address this deterioration and adapt to it, by bearing responsibility for the damage they have caused. Environmental because of their historical emissions, and while the problem of environmental refugees is not limited to developing countries only, these regions suffer more than others from the negative effects of climate change, caused by the developed countries, which created the problem, and therefore they must bear the largest share. Of responsibility, especially with regard to environmental refugees.

### **CONCLUSION**

The uncertainty and unpredictability surrounding climate change, and the extent to which human societies are able to adapt to this change, constitute one of the difficulties that hinder understanding the relationship between human movement and climate, and thus the inability of researchers to reach a consensus to consider the environment as a primary driver of migration, which leads to Of course, due to the continuing controversy over the number of environmental refugees, and the inability to build an appropriate political and legal response to migration resulting from environmental changes, international environmental law nevertheless provides an important field for providing international protection for people fleeing the effects of climate change, through many relevant rules, Which establishes a common framework of responsibility for protecting this group,



the most important of which is the contribution of countries that have caused the exacerbation of this phenomenon to bear responsibility, as developed countries must take the initiative in bearing responsibility for the harm they have caused and work to find a solution, as a basic foundation for achieving justice for the environmental refugee. In addition to the importance of the preventive role in promoting the necessary proactive measures that contribute to building the resilience of societies in the face of the negative consequences of climate change, these preventive and precautionary measures contribute to protecting people from becoming refugees outside their homelands or displaced within them.

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