

The Climate Refugee – A New Juridico-Political Category

Highlights:

- The concept of climate refugees corresponds to a legal protection status which is still not internationally recognized.
- Integral human development (IHD) and its correlative concept of integral ecology can provide a useful framework to rethink and expand, in a more comprehensive manner, the concept of climate refugees.
- Several authors point out that a leading role could and should be taken by the European Union in determining the international recognition of the new juridico-political category of climate refugees.

ABSTRACT

Climate change has originated growing phenomena involving the displacement of affected people or groups of people across different regions and countries around the world. Climate displacement has increasingly drawn the attention of migration and environmental researchers, legal, global affairs and development specialists. However, the concept of “climate refugees” corresponds to a juridico-political protection status which is still not internationally recognized. Humanity is already confronted with the limits to its own sustainability and it will have to take fundamental, practical resolutions in the near future which will impact decisively on the current economic and consumption models, and on global population growth trends. Climate change is a reality proven by numerous scientific studies and factual evidence accumulated over, at least, the past 60 years, as well as by the documented life experiences of millions of human beings spread around the globe. Based on different contributions, I propose a broader, humanist definition for the concept of “climate refugees” – desirably contributing to the debate on the harmonized international legal framework necessary for the recognition of such legal protection status and juridico-political category. Thus, I pave the way towards a more comprehensive and humanist definition of “climate refugees” within the framework of integral of human development and its correlative concept of integral ecology.

Key words: Migration Justice; Climate Change; *Laudato Si'*; Common Home; International Refugee Law

1 INTRODUCTION

This chapter comprises a theoretical framework that includes historical aspects concerning the origin of the concept of “climate refugee”, climate refugees in the legal framework of the European Union, the limits of sustainability (population, consumption and growth economy vs. the idea of an integral ecology), and climate refugees within the framework of integral human development (IHD). We continue with the methodology (research question, objectives and methods), and with a critical analysis and discussion that end up in the proposal of an original definition for “climate refugees”, in the conclusions. This proposed definition is based on the systematic collection of other definitions from different bibliographical sources and it is also supported by the framework provided by integral human development and integral ecology. It is followed by a reflection on the practical impact of the definition and pertinent future research, as well as the sections of acknowledgments, online media and bibliographic references.

My research question is based on the question: will it be possible to harmonize the set of pre-existing definitions for the phenomenon of the so-called “climate refugees” (already systematized by organizations such as the IOM – International Organization for Migration) according to the principles of integral ecology and integral human development? One of the objectives sought here is to contribute, based on studies on migration, to the current debate concerning the need for political-legal recognition of the category of “climate refugees” and the urgency of harmonizing this protection status within the framework of the European Union, considering an amendment to the international refugee law. Another goal that I intend to achieve is to demonstrate that, regardless of past and present theoretical debates in the areas of migration or environment, it is perfectly possible to provide a simultaneously comprehensive and detailed definition for the category of “climate refugees”, which can cover a varied set of situations and serve as a basis for jurists to specify a protection status with particular requirements. Finally, a third objective of this article is to demonstrate that the framework of integral ecology and, more generally, integral human development can serve as a compass or guide, and contribute to relevant practical solutions for some of today’s most pressing areas of research.

Associated with global warming, humanity is currently facing the thawing of ice at the poles, the rise in average sea levels, the increase in temperature and acidification of the oceans, geographical and environmental changes in coastal areas, periods of prolonged drought, progressive extinction of plants and animals, the threat to biomes and water scarcity in urban and rural areas of the globe. Faced with this situation, even if human behaviours change rapidly, it becomes clear that we will be left, collectively, with two solutions: adaptation and mitigation, as prevention (for many of the so-called “nine planetary boundaries” described below) will no longer be possible. By the year 2100, average increases of 4%-5% are estimated for the maximum temperature recorded in Portugal and the

warming of the planet is real, showing temperature peaks and longer hot periods. According to the IPCC – Intergovernmental Panel on Climate Change (2023), citing data from the World Meteorological Organization and Copernicus ECMWF, the months of June, July and August 2023 were the three hottest ever on record. When it becomes vital to think articulately and collectively, altruistically even, and to plan long-term action, governments, corporations, industries and world leaders seem, however, to present some difficulties in reconciling short-term private and corporate interests with the global interest of the species in the short, medium and long run. Although frequent warnings about climate change have been widespread since the 1960s¹, and later reinforced by climate agreements signed in the 1970s (United Nations Conference, 1972).

According to IDMC – Internal Displacement Monitoring Center², which aggregates data on internal displacements and displacements associated with disasters, 28.6 million displacements linked to climate change were recorded in 2020, mainly connected with floods and storms. Based on the same source, the Plataforma de Desplazamientos y Migraciones Climáticas (Madrid) collected data on 23.9 million climate-related displacements in 2019. Persons and groups of people will increasingly feel the need to move to other regions, sometimes to other countries, as climate change increases globally. In this way, it is expected that the concept of “environmental refugee”, “climatic” or “ecological” (depending on the definitions, trying to identify this type of refugee/migrant/displaced person with greater precision) will gain increasing visibility. However, there remain some difficulties associated with a comprehensive definition of this type of movement, or flow of people. Furthermore, five years after the publication of the Encyclical *Laudato Si'*, the Vatican presented, in May 2020, a document for the application of the Encyclical with more than 200 recommendations in defense of the environment and human life. That document includes notes that aim to make educational institutions responsible for the study of climate change, to raise awareness of the impact of environmental degradation on populations, as well as to draw attention for the need of a legal recognition of the category of “climate refugees”³.

The United Nations 2030 Agenda, under the motto of “leaving no one behind”, also includes goals related to migration (11 of the 17 sustainable development goals are related to migration and people’s

¹ Cf. *Silent Spring* (Carson, 1962); *The Tragedy of the Commons* (Hardin, 1968); *The Population Bomb* (Ehrlich and Ehrlich, 1968); or *The Limits to Growth* (LTG) (Meadows, Meadows, Randers and Behrens III representing a team of 17 researchers, 1972), based on Forrester's work entitled *World Dynamics* (1971).

² The Internal Displacement Monitoring Center (IDMC) is one of the world’s most credible sources of data and analysis on internal displacement. Since its creation in 1998 as part of the Norwegian Refugee Council (NRC), it has provided a rigorous, independent and reliable service to the international community and its work informs policy and operational decisions that improve the lives of millions of people living in internal displacement or are at risk of being displaced in the future. Internal Displacement Monitoring Center (IDMC), available at <https://www.internal-displacement.org/research-areas/Displacement-disasters-and-climate-change>, consulted on August 26, 2023.

³ Think Tank – European Parliament, available at [https://www.europarl.europa.eu/thinktank/en/document/EPRS_BRI\(2021\)698753](https://www.europarl.europa.eu/thinktank/en/document/EPRS_BRI(2021)698753), consulted on August 21, 2023.

mobility). Sustainable development goal 10.7 specifically aims to “facilitate the migration and mobility of people in an orderly, safe, regular and responsible manner, including through the implementation of planned and well-managed policies”. It may happen, however, that the contours of forced migration resulting from this type of extreme climatic and environmental events are not clear, particularly in numerical terms (scale of transregional and cross-border migration resulting from climate change and/or environmental catastrophes), in the type (permanent or transitory) of such displacements, and in their legal framework (internationally harmonized) – meaning that the response to this kind of phenomena remains limited, inadequate, underdeveloped and poorly specialized.

Some disharmonies in the notion of “climate refugees” also weaken the combined actions necessary to respond to this type of displacement: according to the authors, the concept may not cover all types of occurrences resulting from natural disasters or climate change; sometimes, the concept can also appear associated with specific ethnicities despite the global dimension of climate change; there is still a lack of responses from the countries hosting these individuals, which often results in disorganized, unplanned and mass displacements; there is little political-legal recognition of this type of refugees; and finally, there is still a need to raise awareness about prevention, adaptation and mitigation, in order to reduce this type of displacement.

Given the considerations above, my aim here is to detail and analyze the definitions that adhere to a type of displacement that can be classified under the category of “climate refugees”, as well as to identify the main phenomena that trigger this type of displacement, in order to present a more comprehensive definition. Such a definition could also inform legal debates around the design of a particular protection status, based on the “nine planetary boundaries” and on a planned international response, together with the notions of integral human development and integral ecology. In this way, I seek to integrate and systematize a whole range of definitions and, humbly, contribute to the conceptual development of the notion of “climate refugees”, by including a set of options that could allow for a clearer and more precise identification of this type of migration or displacement.

2 THEORETICAL FRAMEWORK

2.1 Historical Aspect: Origin of the Concept

The concept of “environmental refugee”, debated by several researchers and by the international community since the 1980s, has now evolved into the most common and recurring expression in the literature of “climate refugee”, or even “ecological refugee” (Hiraide, 2022). Despite this, the “climate refugee” status is not yet politically and legally recognized. This discussion has deepened in recent years: in the face of a large number of natural disasters and other catastrophes of an ecological and environmental nature, and associated migratory movements that are more visible, publicized and growing (Berchin et al., 2017; Carević and Novokmet, 2021; Hiraide, 2022). According to Milán-

García et al. (2021), between 1999 and 2019, 333 international studies were developed on the topics of climate change and migration – namely in countries such as the United States, United Kingdom, Germany and China. Researchers and the international community have long called for an amendment to the 1951 Refugee Convention⁴ which includes, among forced migrations, those resulting from natural disasters and climate change – as this Convention does not recognize environmental factors as a criterion for defining the protection status of “refugee” (Berchin et al., 2017; Carević & Novokmet, 2021; Hiraide, 2022).

Despite this, the concept of “environmental refugee” has been known since 1985 (UNEP, 1985) – although it has undergone changes over time, and today the term “climate refugee” is more common. Hiraide (2022), however, prefers the concept of “ecological refugee”, in order to minimize possible racial issues or populist exploitations that could arise, associated with this type of displacement. The author even mentions that the notion of ecological displacement includes factors that can allow for a clearer, broader and more complete definition (going beyond displacements motivated by climate change). In general, existing definitions in the literature imply that we can conceive of a “climate refugee” as a person who is forced to make a displacement/relocation as a result of the severe impact and serious consequences of climate change (Berchin et al., 2017), and this displacement may even imply moving to another country, in more severe situations. According to Hiraide (2022), the reference to “climate” is not sufficient to identify this form of displacement (e.g. displacement/relocation resulting from the eruption of a volcano must also be included). In turn, Milán-García et al. (2021) state that it is not possible to talk about a “climate refugee” without associating it with the components and correlative concepts of international migration, climate justice, sustainability, human rights and disaster risk reduction.

In response to growing international recognition of this phenomenon, the Nansen Initiative⁵ (which took place between 2012 and 2015), aimed to respond to those displaced in the context of disasters and the effects of climate change, based on international cooperation (solidarity), standards for the treatment of people (admission, permanence, rights and duties) and operational responses (funding mechanisms and responsibilities). This was followed, in 2016, by the UNHCR and the New York Declaration for Refugees and Migrants, where two global pacts emerged: one on refugees and the other one on “other migrants”. In this second global pact, entitled Global Pact for the Security, Order and Regularity of Migrations (approved on December 10, 2018, in Morocco), the situation of migrants displaced due to climate causes is recognized. Similarly, COP 24 addressed this issue; however,

⁴ Convention Pertaining to the Status of Refugees of 1951, available at https://www.acnur.org/fileadmin/Documentos/portugues/BDL/Convencao_relativa_ao_Estatuto_dos_Refugiados.pdf, consulted on August 27, 2023.

⁵ Environmental Migration Portal, available at <https://environmentalmigration.iom.int/nansen-initiative>, consulted on August 28, 2023.

recognition of the legal status has not been achieved. COP 25 (2019) highlighted the issue of desertification and the food system, while the International Organization for Migration (IOM) recognized that global climatic conditions have consequences over people's lives and encourage human mobility, having presented a more substantial link between disasters and displacement; however, never proposing a special status.

The UNHCR – United Nations High Commissioner for Refugees and its Special Advisor on Climate Action since 2020 (Andrew Harper) guide the climate action agenda by focusing on three broad areas: laws and policies, operations (which include the Refugee Environmental Protection Fund and the Operational Strategy for Climate Resilience and Environmental Sustainability 2022-2025), and the environmental footprint. Since 2015, as a permanent guest of the Platform on Disaster Displacement (PDD) and a member of its advisory group, UNHCR has strengthened its collaboration with states, partners such as IOM, UNDRR⁶, UNFCCC⁷, WMO⁸, UNDP⁹ and other key actors, to respond to these challenges. The PDD is a state-led initiative in support of the implementation of the Nansen Initiative Protection Agenda for Cross-Border Disaster Displacement, the Sendai Framework for Disaster Risk Reduction and the Paris Agreement¹⁰. According to the UNHCR, “Refugees, internally displaced persons (IDPs) and stateless people are on the front lines of the climate emergency. Many live in climate ‘hotspot’, where they often do not have the resources to adapt to an increasingly hostile environment” (UNHCR, 2020). At COP 26 (2021), the UNHCR urged all parties to:

- "1. Combat the growing and disproportionate impacts of the climate emergency on the most vulnerable countries and communities – in particular, on displaced people and their hosts;
2. Support vulnerable countries and communities in their efforts to rapidly scale up prevention and preparedness measures to prevent, minimize and address displacement.” (UNHCR, 2021)

For the UNHCR, “The climate crisis is a human crisis. It is driving displacement and making life more difficult for those who have already been forced to flee.” (UNHCR, 2022). The impacts of climate change are numerous and can trigger displacement and worsen living or returning conditions for those who have already been displaced. Climate change can also act as a threat multiplier, exacerbating existing tensions and increasing the potential for conflict to occur. Risks resulting from the increasing intensity and frequency of extreme weather events, such as abnormally heavy rains, prolonged droughts, desertification, environmental degradation or rising sea levels and cyclones,

⁶ United Nations Office for Disaster Risk Reduction, available at <https://www.undrr.org>, accessed on September 3, 2023.

⁷ United Nations Framework Convention on Climate Change – also known as the Paris Agreement (2015), available at https://unfccc.int/sites/default/files/english_paris_agreement.pdf, accessed on 10 September 2023.

⁸ World Meteorological Organization, available at <https://public.wmo.int/en>, accessed on September 9, 2023.

⁹ United Nations Development Programme, available at <https://www.undp.org>, accessed on September 10, 2023.

¹⁰ Areas of cooperation include policy coherence, knowledge sharing, awareness raising, operations support, legal and regulatory guidance, disaster risk reduction support, climate action, clean energy and environmental sustainability, with the publication of *Words into Action* as the most recent example.

already lead an average of more than 20 million people per year to leave their homes and move to other areas of their countries. Some of these people are forced to cross borders in the context of climate change and disasters and may, under certain circumstances, need international protection. Therefore, refugee and human rights' laws have an important role to play in this arena. The Global Compact on Refugees (UN General Assembly, 2018) directly addressed this issue by also recognizing that "climate, environmental degradation and disasters increasingly interact with the drivers of refugee movements" (UN, 2018) .

2.2 Climate Refugees in the European Union (EU) Legal Framework

Although climate refugees have become more visible over the last few decades, the media impact regarding this type of migration is still scarce. Perhaps for this reason, the institutional commitment has not echoed nor provided the rationale for applicability that is required, given the strong challenges that arise in this domain. Additionally, several authors point out that a leading role could (and should) be assumed by the European Union in determining the international recognition of the new political-legal category of "climate refugees". Squeff and Rodrigues (2016), Antônio (2018), Varandas (2020), Cartaxo (2020) or Mascarenhas (2022) are among the various authors who, within the scope of Law and International Affairs, have focused on the need of a recognition for the category of "climate refugees".

When we address climate/environmental displacement within the European Union's internal legal framework, and since international refugee law can only be applied to a very limited extent, international human rights' law continues to constitute a possible viable "complementary" basis for the protection claimed by climatically/environmentally displaced people. These complementary forms of protection derive mainly from the International Covenant on Civil and Political Rights (ICCPR) and the Convention Against Torture (CAT), as well as the ECHR – European Convention on Human Rights, the EU Charter of Fundamental Rights (CFR) and the QD – Qualification Directive (QD, Directive 2011/95/EU), in the EU context. In particular, the right to life (Art. 6 ICCPR, Art 2 CEHR, Art 2 CFR) and the prohibition of torture and inhuman and degrading treatment (Art. 7 ICCPR, Art 3 CAT, Art 3 CEHR, Art 4 CFR; Art 15 QD) are relevant in the context of protecting climate/environmentally displaced people (Kraler et al., 2020:71). Within the framework of the european legislation, international protection within the EU is guaranteed by a set of regulations and directives, jointly known as the Common European Asylum System (CEAS). Although there is a brief reference to climate change and migration in the Stockholm Programme, the second generation of CEAS instruments does not directly address protection granted in the context of climate change or natural disasters (Kraler et al., 2020: 71). Even so, among the instruments that create entry points for those cases are the QD – Qualification Directive (which harmonizes and creates common standards

among member states on how to consider a person in need of international protection) and other instruments and initiatives of the EU, namely: the Temporary Protection Directive (TPD 2001/55/EC), still within the CEAS, the Return Directive (EU RD 2008/115/EC), the non-harmonized protection status, the Humanitarian Resettlement and Admission Programs (and the regulation for an EU resettlement structure), among other additional options (such as humanitarian visas and the European Humanitarian Visa requested by the European Parliament to the European Commission in 2018)¹¹.

Regarding international protection (harmonized protection status in the European Union), the EU has, as a whole, followed the 1951 Refugee Convention, according to which climate change and environmental disasters do not provide a legal basis for conferring the refugee status (Kraler et al., 2020). An *ad hoc* consultation carried out by EMN – European Migration Network in 2018, on climate change and migration, revealed that, in most countries, the link between climate change and migration is not widely discussed. Therefore, in order to qualify as a refugee, the applicant must provide a connection to one of the five protection grounds provided for in the 1951 Refugee Convention or, in the case of European Union member states, under the QD – Qualification Directive, 2011. A brief survey carried out by the International Center for Migration Policy Development (ICMPD) within the scope of the aforementioned study commissioned by the European Parliament (Kraler et al., 2020), carried out in selected countries, also revealed that none of the member states of the European Union planned to make use of subsidiary protection for reasons of environmental or natural disasters. But subsidiary protection may apply under some circumstances: even if environmental reasons are not explicitly stated in the Austrian migration and asylum law, for example, they could potentially lead to a protection status if the return of a person claiming climatic or environmental reasons, and who does not receive refugee status in Austria, constitutes a real danger of violating Articles no. 2 and nr. 3 of the European Court for Human Rights (ECHR).

Regarding the non-harmonized protection status in the European Union: in addition to harmonized international protection statuses (there is currently no international harmonization of the concept of “climate refugee”), European Union member states often provide more favorable protection standards than those defined or provided for in the general legal framework of the European Union, by extending protection to people who do not qualify for international protection (European Parliament, 2020). Countries such as Italy, Sweden, Switzerland, Finland, Cyprus or the work that has been developed by Germany or Ireland within the scope of their respective legal systems are in this

¹¹ Beyond the European Union, Brazil’s 2017 Migration Law (No. 13445) provides temporary visas for the humanitarian reception of people displaced due to natural and environmental disasters. Also the Australian Seasonal Worker Program (SWP) and the complementary Pacific labor mobility scheme leverage labor mobility agreements to support migrants from areas affected by climate change and natural or environmental disasters.

situation. The Swedish Aliens Act (2005: 716), chapter 4, section 2a, together with its chapter 5, section 1a, provides protection for a person who cannot return to their home country due to an environmental disaster. In Italy, national protection can be granted to migrants – who did not initially qualify for international protection – if there are “serious reasons” of humanitarian nature, such as famine or environmental/natural disasters in the country of origin, among others. The Finnish Aliens Act 301/2004, Chapter 6, Section 88a, opens up the possibility of granting humanitarian protection if neither asylum nor subsidiary protection can be granted, but the individual is unable to return to their country of origin or habitual residence as a result of (among other reasons) environmental catastrophe. However, both Sweden and Finland had, in 2020, suspended their respective provisions, following the high number of arrivals recorded in 2015 and 2016 (Kraler et al., 2020).

The Swiss Aliens and Integration Act, Art 83, provides for temporary admission if the application of a removal order (from a humanitarian point of view) is unreasonable because the person in question is “in concrete danger due to situations such as war and civil war, general violence and medical emergencies in their country of origin” (the Federal Council had stated, as early as 2008, that this regulation applies to “people displaced as a result of disasters”). Furthermore, there is a provision in both the Swiss Asylum Act and the Aliens and Integration Act on the basis of which the application for return to a region affected by a natural disaster can be temporarily suspended (Article 44, Paragraph 2, ACT and Article 83, Parag. 4, Foreigners and Integration Law). In Cyprus, Art 29(4) of the Refugee Law 2000 includes environmental destruction as an additional reason for non-refoulement of refugees and beneficiaries of subsidiary protection.

Germany has worked to establish mechanisms that provide adequate protection to people affected by displacement induced by climate and environmental disasters in countries prone to such disasters, as part of its humanitarian assistance and development cooperation. The German Advisory Council for Global Change proposed, in 2018, the development of a “climate passport”, which should “offer those at risk from global warming the option of gaining access to civil rights in safe countries” (in a first phase, this passport would be intended for citizens of small island states, whose territories will become uninhabitable and, therefore, who will become stateless). In conclusion, it should be noted that the low number of countries that have a climate or environment-related element in their protection system makes it difficult to trigger the respective changes at EU level. Furthermore, if it is true that national humanitarian protection statutes offer room of maneuver for countries to extend the protection to people affected by climate/environmental change and specifically by natural disasters, they also regularly provide a lower protection status than what is stipulated in the QD for refugees and beneficiaries of subsidiary protection¹².

¹² According to the conclusions of studies by Kraler et al. (2020) and the EMN – European Migration Network (2020).

2.3 The Limits of Sustainability: Population, Consumption and Economic Growth VS. The Idea of an Integral Ecology

Lebret (1897-1966) was able to observe, through his work with the fishing sector in France in the 1930s and during decades of mobilization of social bases in Latin America, that traditional economic schemes focused only on growth and accumulation of wealth did not allow to adequately respond to the human needs (Keleher, 2018). Almost a century later, Washington, Lowe and Kopnina (2020) identify three major drivers of a non-sustainable human approach: population, consumption and economic growth. The authors argue that there is widespread denial about these issues, but they clearly need to be addressed – if we are to enable any of our species’ possible sustainable futures. Thus, warnings about overpopulation in both versions of the World Scientists Warning to Humanity and in the IPCC¹³ and IPBES¹⁴ reports were largely ignored – and these authors consider the size of an ecologically sustainable global population, while refuting the idea that discussing overpopulation would be “anti-human”.

Considering the desire to reach consensus on conceptual definitions that allow for the harmonization of the legal framework and the deconfliction of the social reception of “climate refugees” in destination countries, the need for a more precise definition of this category has been deepened over the last few years, in the face of a large number of natural disasters and other ecological and environmental catastrophes, as well as more visible, publicized and massive migratory movements associated with such disasters (Berchin et al., 2017; Carević and Novokmet, 2021; Hiraide, 2022).

Researchers at the Stockholm Resilience Center (cited by Abegão, 2021) proposed the “nine planetary boundaries approach” (Rockström et al., 2009; Steffen et al., 2015). These researchers have dedicated a part of their inquiries to ask how long this regime of continuous human growth will last, and where will we encounter the limits of our own sustainability. They argue that humanity has already surpassed the “high risk zone” for at least “two planetary boundaries”: the integrity of the biosphere and biogeochemical flows (mainly through the agricultural use of fertilizers). At the same time, we find ourselves in an “increased risk zone” for “two additional planetary boundaries”: climate change and the conversion of natural areas for human purposes. As for the remaining “planetary

¹³ Intergovernmental Panel on Climate Change, an intergovernmental body of the United Nations based in Geneva, Switzerland and composed of 195 member states. It is responsible for advancing knowledge about human-induced climate change. It was established in 1988 by the World Meteorological Organization (WMO) and the United Nations Environment Program (UNEP), and it was later endorsed by the United Nations General Assembly.

¹⁴ Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, an intergovernmental organization created in 2012, consisting of 140 member states at the time (membership continued to grow and all United Nations member states are eligible), along with several observer organizations and headquartered in Bonn, Germany. Its goal is to improve the interface between science and policy on issues of biodiversity and ecosystem services. In June 2021, the IPBES and the IPCC released a co-sponsored workshop report on biodiversity and climate change: this workshop produced a summary report covering the results, along with a 250-page scientific results report.

boundaries”, these scientists postulate that those remain to be quantified or are still in a safe zone – at least, as far as we know. Another “boundary” to be considered is the total global ecological footprint (we have also unequivocally exceeded this boundary, which has been overloaded for several decades): it is estimated that we are currently making use of the renewable resources of 1.7 Earth planets, and this value will increase to 3 Earth planets by 2050 (Abegão, 2021). However, this unsustainable paradigm only continues because humanity is transforming the biosphere into a monopoly of supremacy for a single species, and preventing access to other species. Now, a brief compilation of relatively recent scientific articles shows that we have greatly underestimated the possible consequences of this monopoly on the biosphere:

«(...) thawing ice [has been] occurring faster than previously estimated, at the same time that sea levels have risen more than was projected and the oceans are removing less heat from the atmosphere than expected. At the same time, plants are removing less CO₂ from the atmosphere than predicted and tropical forests that have been transformed into plantations for human purposes have a carbon sequestration potential far below what was expected. Deaths due to the air pollution are at least double than what was assumed, and the contribution of the airline sector to this pollution and to global warming continues to be completely underestimated.” (Abegão, 2021).

Faced with this set of data, we cannot help but feel overwhelmed and tempted to pessimism. This temptation, however, requires from us the response that is only given by a New Humanism. As Isabel Capeloa Gil writes: “But the last hour has not yet arrived. Despite the ‘end of the world clock’ moving forward. The climate crisis and the exhaustion of the planet are an evidence and not mere principles.” (Gil, 2022). A way out of the catastrophe can be the deliberate decision to adopt the perspective of an integral ecology. According to Butkus and Kholmes (2017), Pope Francis’ Encyclical *Laudato Si’* (2015) launched a new conceptual language in the Social Doctrine of the Church (SDC): what is called “integral ecology”, given the perception that it would be necessary to seek comprehensive solutions that encompass the interaction between environmental systems themselves and social systems, in order to “face what are not two separate crises (...) but a complex crisis, which is both environmental and social” (LS., nr. CXXXVIII). To solve this complex crisis, we are called to use an integrated approach, in order to “fight poverty, restore the dignity of the excluded and, at the same time, protect nature” (LS., nr. CXXXVIII). The motto is, therefore, “An integral ecology for an integral society” (DPIHD¹⁵, 2018). At the same time, integral human development is a holistic vision of global development that does not only consider economic growth, but also poverty reduction, human rights, religious belonging, human relations and conflict resolution.

¹⁵ Dicastery for the Promotion of Integral Human Development.

2.4 Climate Refugees in the Framework of Integral Human Development

The expression “integral human development” (IHD) appears, for the first time, in Pope Paul VI’s Encyclical *Populorum Progresio* (1967) or “Development of the Peoples”, although many of the key ideas present in that Encyclical, as well as the conceptual foundations of the expression “integral human development”, date back to the work of the French Dominican priest, economist and social activist Louis-Joseph Lebret (1897-1966) (Keleher, 2018: 29). According to the integral human development Research Lab at the Kellogg Institute for International Studies, the field of integral human development (IHD):

«(...) combines elements of peace, development, ethics and economics to arrive at a holistic understanding of a human-centered theory of development, in an ecologically conscious context. IHD focuses on the integral development of each person, deriving its ethics from the principles of Catholic Social Doctrine, with a particular emphasis on human dignity.» (IHD Research Lab, Kellogg Institute for International Studies, 2022)

Still according to Keleher (2018), IHD offers a radical participatory approach to the field of human development, having extended beyond the institution and social practice of the Catholic Church and decisively influenced concepts such as “authentic development” and “development ethics”. Furthermore, IHD is integral in at least two ways: (1) development is not just economic development, but the development of the whole person: including social, political, creative, spiritual development, etc.; (2) development is the development of each person, whether that person is a marginalized peasant or part of a powerful elite (Keleher, 2017: 19). From the perspective of Hodges et al. (2018), Pope Francis argues that integral human development must be based on an alliance between humanity and the environment for sustainable human development, which implies the assumption of new habits and behaviours, embodying a path to “rehumanization”, supported by an environmental awareness and denouncing the evils of modernity. Expressing its concern about issues of justice and peace, migration, health, charity and care for creation, the Holy See formed, on August 17, 2016, the Dicastery for the Service of Integral Human Development¹⁶ with skills in the following areas: migration, poor, sick, excluded and marginalized persons, victims of natural disasters, victims of conflicts, unemployed individuals, prisoners and victims of any form of slavery or torture. As part of its action, the Dicastery collects information and research in the areas of justice and peace, development of the peoples, promotion and defense of human dignity and human rights, in order to provide conclusions to episcopal agencies for interventions to take place.

The Climate and Environment Charter for Humanitarian Organizations (which includes recent signatories such as the IOM) defines a set of commitments assumed by its signatories¹⁷(local, national

¹⁶ https://www.vatican.va/roman_curia/sviluppo-umano-integrale/index_po.htm, consulted on April 8, 2023.

¹⁷ These signatories to The Climate and Environment Charter for Humanitarian Organizations commit to: 1. Step up their response to growing humanitarian needs and help people adapt to the impacts of climate and environmental crises; 2. Maximize the environmental sustainability of their work and quickly reduce greenhouse gas emissions; 3. Embrace the

and international humanitarian organizations). But the pastoral guidelines for climate displaced people result, rather, from an exchange between the “Migrants and Refugees” and “Integral Ecology” Sections, both under the Dicastery for the Promotion of Integral Human Development. Such guidelines recognize the nexus between climate crisis and displacement, detailing different aspects: promoting awareness and outreach, providing alternatives to displacement, preparing people for displacement, promoting inclusion and integration, exercising positive influence, having impact on policy formulation, extending pastoral care, cooperating in strategic planning and action, promoting professional training in integral ecology and academic research in CCD – Climate Crisis and Displacement. According to Pope Francis (2021), “to see or not to see” is the question that will lead us to answer together, through action: “what effect do the stories of displaced people and climate refugees have on us and how will we respond to them (through fleeting and transitory, or decisive and profound responses)?”. Whether these stories seem close or remote to us, whether we take the trouble to “become painfully aware, dare to transform what is happening... into our own personal suffering and thus discover what each of us can do about it” (LS, XIX).

Furthermore, this concern is evident in the *Laudato Si’* Objectives¹⁸, developed from Pope Francis’ Encyclical *Laudato Si’*, with the aim of enabling new ways of living: (i) response to the cry of the earth; (ii) response to the cry of the poor; (iii) ecological economy; (iv) adoption of sustainable lifestyles; (v) ecological education; (vi) ecological spirituality; (vii) community resilience and empowerment. All objectives reveal a concern with integral human development, *however* objective (ii) response to the cry of the poor foresees actions to promote solidarity, particularly towards refugees and migrants, objective (v) ecological education includes actions to protect the dignity of workers, and objective (vii) community resilience and empowerment encompasses actions to promote rootedness and a sense of belonging in local communities and neighborhood ecosystems – all of these objectives reinforce the importance of migrations, in line with the goal of protecting our common home for the good of all.

The notion of “climate refugees” gains pertinence in view of the increasing frequency of extreme phenomena and severe or drastic climate and environmental changes, such as monsoons (e.g. Bangladesh) and torrential rains (e.g. Germany), waves of heat that reach 62° Celsius in South Asia (e.g. India and Pakistan), hurricanes (e.g. the Caribbean and southern United States), forest fires in

leadership of local actors and communities; 4. Increase their ability to understand climate and environmental risks and develop evidence-based solutions; 5. Work collaboratively across the humanitarian sector and beyond to strengthen climate and environmental action; 6. Use their influence to mobilize urgent and more ambitious climate action and environmental protection; 7. Develop goals and measure their progress as they implement those commitments. Signatories available here: <https://www.climate-charter.org/signatures/>, consulted on September 2, 2023.

¹⁸ *Laudato Si’* Objectives – *Laudato Si’* Action Platform, available at <https://plataformadeacaolaudatosi.org/objetivos-laudato-si/>, consulted on August 29, 2023.

North America (e.g. California and Canada) and South America (e.g. Amazon and other biomes – such as Pantanal, Atlantic Forest or Cerrado –, causing many displaced indigenous people, riverside residents, etc.), in Siberia or in Mediterranean countries (e.g. Greece and Portugal) and in Africa, and natural disasters such as typhoons (e.g. Idai , which devastated entire regions of Mozambique and Zimbabwe), volcanic activity (e.g. Canary Islands, São Jorge in Azores Islands) or earthquakes (e.g. Haiti, Turkey, Nepal). The notion of “climate refugees” also gains greater relevance as a set of agencies and non-governmental organizations spread across the globe dedicate themselves to the topic or publicize it, and while a series of institutes (from New Zealand and Australia to Canada, Germany and Spain) linked to migration and environmental research bring together efforts in new interdisciplinary platforms with the aim of studying it.

I argue that the framework of integral human development (IHD, 1967-2018) and its related concept of integral ecology (Francis, 2015; Hodges et al., 2018) – the foundations of which were laid by the French Dominican priest, economist and social activist Louis-Joseph Lebret (1897-1966) and by the IRFED – Center International Développement et Civilizations – can provide a useful framework for rethinking and expanding, in a more comprehensive and humanistic way, the concept of “climate refugees”. In other words, integral ecology can help to develop the legal framework. A comprehensive definition will consider spatial and temporal aspects, the framework of the “nine planetary boundaries” (Stockholm Resilience Center: Steffen et al., 2015), which determine flows and displacements associated with the so-called “climate refugees”, and the legal framework, in an integrated vision that includes climate change and natural disasters.

3 METHODS

3.1 Research question

Is it possible to harmonize the set of pre-existing definitions for the phenomenon of the so-called “climate refugees” (already systematized by organizations such as the IOM – International Organization for Migration) according to the principles of integral ecology and integral human development?

3.2 Goals

- 1) Based on studies on migration, contribute to the current debate on the need for juridico-political recognition of the category of “climate refugees” and the urgency of harmonizing this protection status within the framework of the European Union, considering an amendment to the international law on refugees;
- 2) Demonstrate that, regardless of past and present theoretical debates in the areas of migration or environment, it is perfectly possible to provide a simultaneously comprehensive and detailed definition of the category of “climate refugees”, which can frame a varied set of

situations and serve as a basis for jurists to specify a protection status with particular requirements;

- 3) Demonstrate that the framework of integral ecology and, more generally, integral human development can serve as a compass or guide and can contribute to relevant practical solutions in some of today's most pressing domains of research and action.

3.3 Methodology

Based on a systematic literature review, comparing the definitions of the category of “climate refugees” proposed by different authors and critically analyzing other terminologies as well, together with a systematic review of various online media, their critical analysis and discussion, I propose a personal definition to the new jurídico-political category of “climate refugees”. This proposal of a more comprehensive definition simultaneously includes and takes into account: (i) the framework of the nine planetary boundaries by Rockström et al. (2009) and Steffen et al. (2015); and (ii) the terms in the MECLEP Glossary¹⁹ – *Migration, Environment and Climate Change: Evidence for Policy*, by the IOM – International Organization for Migration (2014).

4 CRITICAL ANALYSIS AND DISCUSSION

A critical terminological analysis will make it possible to substantiate the need for political recognition and legal review, associated with climate migration and the classification of the “climate refugee” category. As previously mentioned, the protection status of “climate refugees” is not yet legally recognized, which makes concerted and specific support action for this particular type of displaced people more difficult. In this sense, my examination and conceptual analysis will take as a starting point the “nine planetary boundaries” (De Tavernier & Ndubueze, 2020), in order to include the greatest number of options that can both detail and expand the definition of climate and environmentally-related mobility, which are presented below in Table no. 1:

9 Planetary Boundaries	Description Impacts	
1. Climate change	Caused by global warming, they refer to variations in long-term meteorological patterns on planet Earth (temperature, sea levels and precipitation).	Rising temperatures have an impact on the thawing of ice masses at the poles, rising sea levels and flooding. In addition to impacting storms, droughts, heatwaves and forest fires.
2. Loss of biodiversity	Caused by the disappearance of species that are fundamental to the ecosystem.	Since organisms interact in dynamic ecosystems, the disappearance of a species can significantly affect the food chain.
3. Changes in land use	Caused by intensive agriculture, forestry, transport and housing which, in the use they make of soil, allow for the change of its natural state and poisoning.	Destruction of landscapes and natural habitats, soil sealing, deforestation and increased risk of flooding.

¹⁹ Migration, Environment and Climate Change: Evidence for Policy (MECLEP), 2014, available at https://publications.iom.int/system/files/pdf/meclep_glossary_en.pdf, consulted on August 15, 2023.

4. Chemical pollution	Caused through environmental contamination of soil and water by using chemicals.	Contamination of rivers and lakes, damaging the entire ecosystem. In addition to generating problems with contamination of groundwater and water sources.
5. Nitrogen and phosphorus cycles	Alteration of the natural nitrogen and phosphorus cycle caused by activities such as mining or the use of fertilizers.	Excess fertilizers can enter rivers and lakes and affect the life of these aquatic ecosystems.
6. Depletion of the ozone layer	Caused by the use of certain chemical substances in refrigeration and air conditioning systems, in aircraft fire extinguishing systems, in certain pesticides, in methyl bromide and in sprays.	These gases can remain in the atmosphere for a long time and, if they are not removed through precipitation and snow, they can be transported to the stratosphere, destroying the ozone layer.
7. Ocean acidification	Ocean acidification occurs when seawater reacts with CO ₂ absorbed from the atmosphere, producing more acidity-inducing chemicals and changing the mineral content.	It endangers the survival of marine organisms, namely bivalves, plankton and reef corals.
8. Global freshwater use	Sharp increase in the use of fresh water for different activities, mainly agriculture.	It can cause disruption to the hydrological cycle, putting coastal ecosystems at risk and potentially resulting in the emergence of epidemics.
9. Atmospheric aerosol load	It refers to solid and liquid particles suspended in a gaseous medium, generally in the air.	They can cause respiratory diseases in more vulnerable groups and, in the atmosphere, they are responsible for modifying hydrological cycles and rainfall.

Table no.1– Terms defined for the “nine planetary boundaries” by De Tavernier & Ndubueze, 2020, adapted by the author, 2023

Directly and indirectly, these “nine planetary boundaries” will influence, in the future, the permanence or displacement of populations between regions and countries, and there are places on the globe that are historically more impacted (e.g. countries in Asia, Africa, Oceania and South America) – despite the fact that its global and growing impact is already unanimous, both on coastal and forest areas, and on the loss of biodiversity, which puts our own survival at risk. Additionally, and in order to clarify the category of “climate refugee”, I considered it useful to present some related concepts, based on the terms defined by the IOM Glossary on Migration, Environment and Climate Change: Evidence for Policy (MECLEP), which are presented below in Table no. 2:

Concepts	Description
Migrant or Environmental Refugee	People or groups of people who, due to gradual changes in the environment which, in turn, adversely affect their lives or living conditions, are forced to leave their usual homes, or choose to do so (temporarily or permanently), inside or outside their country.
Environmentally Displaced People	People for whom the main cause of relocation to another country results from environmental degradation, deterioration or destruction (there may also be other causes that have led to this relocation).

Migration Influenced by Environmental Change	Environmental changes are identified as the cause of the decision to migrate.
Forced Migration Due to Natural Disasters and/or Effects of Climate Change	It results from the migratory movement in which there is an element of coercion, resulting from natural or environmental causes, chemical or nuclear accidents.
Planned Relocation Due to Natural Disasters and/or Effects of Climate Change	Relocation categories: <ol style="list-style-type: none"> 1. People who need to be relocated from areas prone to sudden-onset natural disasters that increase in severity and intensity as a result of climate change (flooding areas); 2. People who need to be relocated because their livelihoods are being threatened due to the effects of the slow onset of climate change (increased frequency of droughts, salinization of water resulting from rising sea levels); 3. People who need to be relocated because their land is needed to implement mitigation measures (expansion of the forest zone or development of water reservoirs); 4. People who need to be relocated because their country or parts of it may become unsuitable for housing or livelihoods due to negative effects of climate change (rising sea levels in coastal areas).
Humanitarian Crisis Due to Natural Disasters and/or Effects of Climate Change	An event or series of events that poses a critical threat to the health, safety, security, or well-being of a community or other large group of people, with large-scale effects. This may be case of a natural disaster and/or the effects of climate change.
Climate Migrant or Refugee	Persons or groups of people who, due to gradual changes in the environment which, in turn, adversely affect their lives or living conditions, are forced to leave their usual homes, or choose to do so, temporarily or permanently, inside or outside their country.

Table no. 2 – Terms from the IOM Glossary Migration, Environment and Climate Change: Evidence for Policy (MECLEP), 2014, adapted by the author, 2023

We thus verify that the IOM MECLEP Glossary practically coincides the definitions of environmental migrant (or refugee) and climate migrant (or refugee). On the other hand, it should be added that Pope Benedict XVI, in his Message for the World Peace Day (2009), defined “environmental refugees” as “people who are forced, by the degradation of their natural habitat, to abandon it – and, often, also to abandon their respective goods and possessions – in order to face the dangers and uncertainties of forced displacement” (Pope Benedict XVI, 2009). In 2019, the Jesuit Refugee Service also renewed its commitment to internally displaced people and its international director stated: “if the current pattern of climate change continues, we could see hundreds of millions of people displaced by the effects of global warming, over the next thirty years.” (Fr Thomas H. Smolich, 2019).

Pondering the Tables no. 1 and no. 2 presented above (the “nine planetary boundaries” by De Tavernier & Ndubueze, 2020 and the terms defined by the Glossary Migration, Environment and Climate Change: Evidence for Policy – MECLEP, 2014), we found that the notions of “climate

migrant/refugee” and “environmental migrant/refugee” overlap and are equivalent according to MECLEP (2014). Both designations also intersect, in certain aspects, with the notions of “environmentally displaced people/migration influenced by environmental change”, “forced migrations”, “planned relocations”, and “humanitarian crises” caused by “climate/environmental changes and natural disasters”. Basically, it can be said that all these terms fall on a spectrum, which ranges from displacement where climate/environmental change (or natural disaster) weighed on the decision to move or migrate, or was even the main reason for such displacement, to situations where there was an irreversible loss of means and minimum conditions of subsistence, and where the stay or return of displaced people to their usual environment would put their lives in danger, threatening their survival, physical and psychological well-being and fundamental human rights. In this sense, Wilkinson et al. (2016) define four mobility patterns that motivate the displacement resulting from this type of migration: (i) people displaced due to climate-related disasters, whose movements are temporary; (ii) people forced to migrate more permanently, due to recurring events; (iii) people who, due to environmental degradation, choose mobility; and (iv) people who choose mobility as an adaptation strategy, in response to environmental pressures. If we pay attention to the “nine planetary boundaries” mentioned above, the ramifications of their reach are multiple, often irreversible and threaten the survival of the human species itself (in addition to clearly threatening biodiversity and the environment).

According to Shelley Wilcox (2021), the book “Justice for People on the Move: Migration in Challenging Times”, by the author Gillian Brock (Cambridge University Press, 2019), since developing an original perspective on migration justice, which defends robust (albeit conditional) law for the self-determination of the states (which includes a reasonably strong right to migration regulation, according to three legitimacy requirements/criteria²⁰), although apparently leaving governance issues linked to migration and climate-related displacement absent from its analysis²¹, offers a theory of migratory justice that allows us to explore implications for climate migration. Notably, Brock’s understanding of the right to self-determination includes strong obligations to provide assistance to climate refugees, an indirect contribution to current debates on this topic. According to Karayığit and Kilic (2021), there is growing evidence that events related to climate change are affecting underdeveloped countries more strongly and, as such, if measures are not taken (even if taking refuge in another country is considered a last resort solution to deal with the effects of climate change), human flows into the European Union will be inevitable. Thus, these authors argue

²⁰ Sustaining a justified state system, which encompasses helping to alleviate “legitimacy failures,” including significant human rights violations in other states.

²¹ And even though some authors insist that climate migrants should not be considered refugees because they would not fit the standard definition of refugees.

that, given its underlying values, the EU has a crucial role in reaching a consensus to find a solution not only to this problem, but also to the legal recognition and protection of “climate refugees”.

It is necessary to reinforce interdisciplinary research in this field, in order to raise awareness among the international community, particularly among supranational institutions, regarding the legal acceptance of this type of refugees (Berchin et al., 2017). In this sense, the recent creation of some interdisciplinary research centers in Europe and North America or Oceania, specifically dedicated to the issue of climate refugees (e.g. FFVT, *Nordic Network on Climate Related Displacement and Mobility*, *Potsdam Institute for Climate Impact Research*, *ClimMobil at Raoul Wallenberg Institute*, *Plataforma de Desplazamientos y Migraciones Climáticas – Madrid*, *Auckland University*, among others), as well as specific lines of research in some pre-existing research centers (e.g. Refugee Studies Center and Environmental Change Institute – Oxford University, PRIO Oslo, MPI, Refugee Law Lab – York University, among others), constitutes a positive sign which will increase the visibility of this type of refugees in the future, among civil societies and political decision-makers. Consequently, or following such visibility and awareness, a concerted action of support is necessary, which allows for the well-being of the refugees and their effective reception. In this sense, the good reception practices of some countries could also serve as a basis for joint management considering a planned, integrated, harmonized and systematic response, which can avoid spikes in mass unregulated migration, eventually easily instrumentalized by populist anti-immigration movements (Carević & Novokmet, 2021).

Through Figure no. 1, I summarize the essential vectors that we should take into account when proposing the new juridico-political category of “climate refugee”:

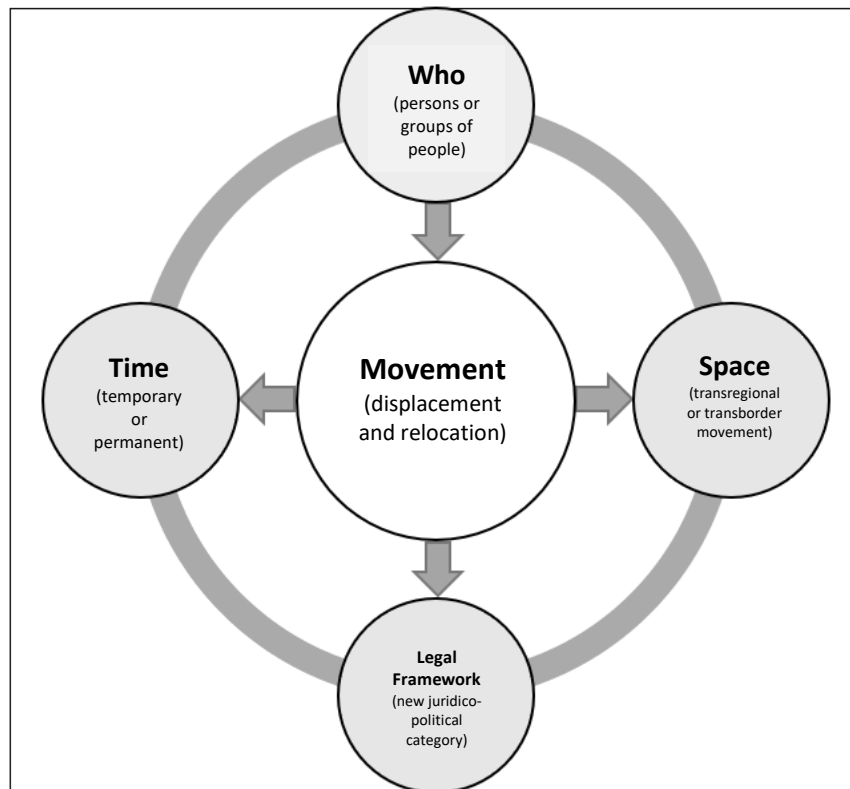


Figure no.1 – Essential vectors of the new juridico-political category of climate refugees proposed by the author, 2023

With human mobility at the center of the equation, we will have to consider temporal and spatial aspects, as well as legal frameworks and the number and type of displaced/relocated people themselves. Figure no. 2 presents, in turn, a synthesis of the different types of causes for the displacement and relocation of so-called “climate refugees”:

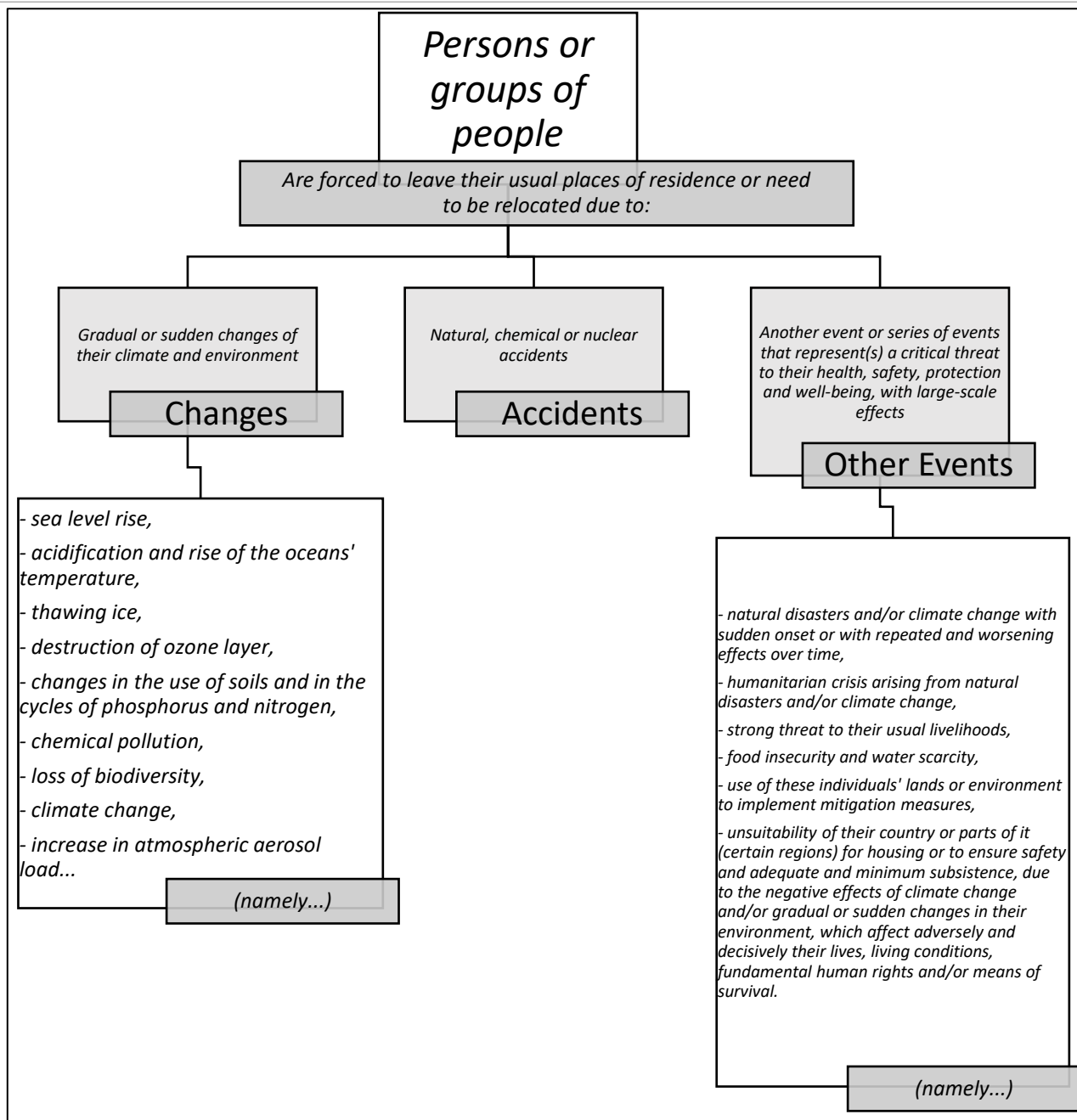


Figure no. 2 – Types of causes for the displacement and relocation of so-called climate refugees
By the author, 2023

We can verify that the causes for displacement/relocation are divided between gradual or sudden changes, accidents, or another event or series of events. Based on all the data previously analyzed, we conclude with a proposal for a personal definition of the category of “climate refugees”.

5 CONCLUSIONS

The scientific community calls for an international commitment to support populations more exposed to the scourge of climate, ecological and/or environmental change, however we must not forget that: 1) if, initially, populations in developing countries were clearly more affected, today we know and observe that the populations of developed countries are equally affected, as the climate

crisis worsens and expands across the planet; 2) prevention, adaptation and mitigation will (desirably) allow us to face at least some effects of this global problem, which necessarily affects and will affect all of us. With regard to integral human development and integral ecology, it is crucial to understand how biodiversity may be at stake, following extreme disasters resulting from climate and environmental change, as well as considering the future consequences for our planet. Overpopulation and economic models based on consumption and continued growth worsen the human monopoly over the planet and the loss of biodiversity, calling us to adopt the notion of an integral ecology, which seeks comprehensive responses to both crises: climate-environmental and social.

Therefore, based mainly on: (i) the framework of the nine planetary boundaries by Rockström et al. (2009) and Steffen et al. (2015); (ii) the MECLEP Glossary – Migration, Environment and Climate Change: Evidence for Policy, by the IOM – International Organization for Migration (2014), I propose the following definition for the new juridico-political category of “climate refugees”:

People or groups of people who are forced to leave their usual places of residence or need to be relocated (to other locations within or outside the same country, temporarily or permanently) due to gradual or sudden changes in the climate and environment (such as rising sea levels, acidification and increased ocean temperatures, thawing ice, destruction of the ozone layer, changes in land use and phosphorus and nitrogen cycles, chemical pollution, loss of biodiversity, climate change and increased atmospheric aerosol load), natural, chemical or nuclear accidents, or other event or series of events that pose a critical threat to their health, safety, protection and well-being, with large-scale impacts. Including: natural disasters and/or climate change with a sudden onset or with repeated and worsening effects over time, humanitarian crisis resulting from natural disasters and/or climate change, strong threat to their usual means of subsistence, food insecurity and water scarcity, use of these individuals' lands or environment to implement measures to mitigate the unsuitability of their country or parts thereof (certain regions) for housing, or to ensure protection and adequate and minimum livelihoods, due to the negative effects of climate change and/or to gradual or sudden changes in their environment, which adversely and decisively affect their lives, living conditions, fundamental human rights and/or survival.

Others synonymous and analogous terms, used by different authors, that we were able to analyze previously are: “environmental refugees” and “ecological refugees”.

Within the framework of this chapter, while articulating the so-called “nine planetary boundaries” with the terms defined by the IOM Glossary MECLEP (2014), together with the subsidiary views by various authors (regarding the main issues of migratory justice within the EU framework, harmonized and non-harmonized legal frameworks, and the recognition of the “climate refugee” protection status), we sought to present a proposal for an expanded and comprehensive definition of the category

of “climate refugee”, which eventually makes it possible to *de facto* recognize this juridico-political category. Encompassing a spectrum of different emergency situations, responding appropriately to protection needs, accelerating the discussion and cooperation of experts in different EU member states, and generating a consensus that allows for a harmonized legal framework for such protection status. We believe that the growing number of lines of research and publications connected with this issue will progressively allow us to scientifically support the definition of a harmonized protection status across different legal frameworks, as well as support the desirable political decision-making process, in order to recognize the category of “climate refugees”. We also propose that the concepts of integral human development and integral ecology will allow us to put forward a more comprehensive definition of this category. This would make it possible to adapt policies to climate displacement, implement emergency responses and a more effective reception that would guarantee, through coordinated management, the dignity and fundamental human rights of “climate refugees”.

6 PRACTICAL IMPACT AND FUTURE RESEARCH

The new juridico-political category of “climate refugees” is related to very relevant practical issues concerning the reception/hosting and protection of refugees in destination countries. And it is also connected with a need to define this protection status in a more concrete, legally harmonized and updated way – in accordance with new climate challenges. The broad-spectrum and comprehensive definition presented in the conclusions aims to cover very different situations, from coastal communities and islands affected by floods, to communities devastated by earthquakes, tsunamis and volcanic events, people affected by thawing permafrost, buffeted by floods and droughts, or catastrophic forest fires. Or even, who see their fishing, agricultural, forestry or pastoral survival profoundly harmed by the loss of biodiversity, climate change, chemical or nuclear contamination, or other environmental catastrophes, with decisive effects on their ways of life and possibilities of subsistence, or short, medium and/or long term survival.

Future avenues of “climate refugee” research include those related to the harmonization of international laws – bringing together climate, environment and migration experts with legal advisors, in order to harmonize international legal frameworks including broad, consensual definitions of what “climate refugees” are, in tune with the International Refugee Agreements, and recognizing that their protection status is due and necessary. These comprehensive reviews would not only be up-to-date with the current climate situation (the climate emergency recognized and declared worldwide, by multiple credible international organizations, independent experts, and governments), and in tune with the life experiences of millions of forcibly displaced human beings in the past, present and over the coming decades (due to climate and environmental change, or extreme events). They would also make it possible to provide less tortuous, faster and more appropriate responses to victims of specific

disasters, catastrophes and decisive climate or environmental changes, which already affect the lives and livelihoods of many millions of people and other species on our planet, in different regions of the globe and on an unprecedented scale. We also recommend that future studies focus on migratory flows of this nature, thus allowing us to know and predict the likely destination countries for climate migration. Furthermore, such research should promote teamwork and interdisciplinary work between different scientists (biologists, meteorologists, environmentalists, legislators, experts in global affairs and development, geographers and demographers, psychologists, sociologists and anthropologists, among others), in order to predict which countries will be most affected in the future – and to plan, adapt and improve responses that prove to be urgent.

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8 ONLINE MEDIA

Climate of Change

<https://climateofchange.info>

Climate Migrants

<https://storymaps.arcgis.com/collections/af3858d32f84488f92dfaceef068fff52>

Climate Refugees - Storytelling

<https://www.climate-refugees.org/storytelling>

Council of Europe, Parliamentary Assembly (PACE) – A Legal Status for “Climate Refugees”

assembly.coe.int/nw/xml/XRef/Xref-XML2HTML-en.asp?fileid=28239&lang=en

Dicastery for the Promotion of Integral Human Development

<https://press.vatican.va/content/salastampa/en/bollettino/pubblico/2021/03/30/210330b.html>

<https://www.humandevlopment.va/en/risorse/interventi/2018/an-integral-ecology-for-an-integral-society--the-great-challenge.html>

DN - Isabel Capeloa Gil: Last Minute

<https://www.dn.pt/opiniao/ultima-hora-14526689.html>

Environmental Migration Portal

<https://environmentalmigration.iom.int/iom-and-migration-environment-and-climate-change-mecc>

European Parliament - The Concept of Climate Refugee

[https://www.europarl.europa.eu/RegData/etudes/BRIE/2021/698753/EPRS_BRI\(2021\)698753_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2021/698753/EPRS_BRI(2021)698753_EN.pdf)

Human Overpopulation Atlas

<https://www.overpopulationatlas.com>

ICMPD - Migrant Refugees

<https://www.icmpd.org/search-results?type=&topic=&s=climate+refugees>

IHD Research Lab - Kellogg Institute

<https://kellogg.nd.edu/ihd-research-lab-integral-ecology>

IOM - Environmental Migration

<https://environmentalmigration.iom.int>

IOM - International Dialogue on Migration and MECC

<https://environmentalmigration.iom.int/international-dialogue-migration-and-mecc>

IPBES-IPCC Co-Sponsored Workshop Report On Biodiversity And Climate Change

https://zenodo.org/record/5101133#.Ym_rNO3MJPY

Jesuit Refugee Service - IDP

<https://jrs.net/en/story/idps-anniversary-guiding-principles/>

João Abegão - The Limits of Sustainability – TEDx Talk
<https://www.youtube.com/watch?v=7v2RZYt7bEo>
 NYTimes - Climate Migration
<https://www.nytimes.com/interactive/2020/07/23/magazine/climate-migration.html>
 Pastoral Guidelines on Climate Displaced People
<https://press.vatican.va/content/salastampa/en/bollettino/pubblico/2021/03/30/210330b.html>
<https://www.humandevlopment.va/en/risorse/interventi/2018/an-integral-ecology-for-an-integral-society--the-great-challenge.html>
 Reuters - Special Report on Climate Change
<https://www.reuters.com/investigates/special-report/climate-change-fiji-sealevels/>
 Scientific Outcome Of The IPBES-IPCC Co-Sponsored Workshop On Biodiversity And Climate Change
https://zenodo.org/record/5101125#.Ym_tvO3MJPY
 Stockholm Resilience Center
<https://www.stockholmresilience.org>
 The Climate Charter and Environment Charter for Humanitarian Organizations
<https://www.climate-charter.org>
 Twitter - Climate Refugee
https://twitter.com/Climate_Refugee
 World Food Program - Climate Action
<https://www.wfp.org/climate-action>
 UNHCR
<https://www.unhcr.org/climate-change-and-disasters.html>
 UNHCR - Climate Change and Disaster Displacement
<https://www.unhcr.org/what-we-do/build-better-futures/environment-disasters-and-climate-change/climate-change-and?query=climate%20refugees>
 UNHCR - Operational Strategy for Climate Resilience and Environmental Sustainability (2022-2025)
<https://www.unhcr.org/media/operational-strategy-climate-resilience-and-environmental-sustainability-2022-2025>
 UNHCR - No. 40: Refugee Law in a Time of Climate Change, Disaster and Conflict
<https://www.unhcr.org/media/no-40-refugee-law-time-climate-change-disaster-and-conflict>
 UNHCR - Refugee Environmental Protection Fund
<https://www.unhcr.org/what-we-do/how-we-work/environment-disasters-and-climate-change/refugee-environmental-protection>
 UNHCR - Strategic Framework for Climate Action
<https://www.unhcr.org/media/strategic-framework-climate-action>
 United Nations University
<https://ehs.unu.edu/news/news/5-facts-on-climate-migrants.html>

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