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Article

The Paradox of Climate Change Migration

Abstract: *Temporary or long-term movements, within the country of origin or abroad, voluntary or forced, individual, in the family or in communities, today migrations that have as their primary cause climate change represent an intensely discussed topic in international debates. Whether it is discussed as environmental refugees, climate migrants, or any other related name, the problem of migrants of this type is still too little present and understood in international law and national and global public policies. Europe seems the most protected from climate change of all the world's continents, which could create climate crises that force its inhabitants to leave their homes in search of better places to live. Europe has stated many better-performing economies than the world's most vulnerable countries and regions. Paradoxically, the world's wealthiest areas can deal with climate impacts on migration through adaptation policies and measures. Still, they are the ones that pollute the most and therefore worsen the climate situation. On the other hand, the most vulnerable countries, usually those in Sub-Saharan Africa or Southeast Asia, are the poorest, from where the inhabitants migrate the most, and yet they contribute the least to the emission of greenhouse gases. The issue of migration caused by climate change is discussed through the latest findings, academic, and scientific writings, considering different facets of climate migration that decision-makers need to contemplate and act accordingly.*

Keywords: *climate change; environmental migrants; forced migration; migration*

1. Introduction

Since the beginning of humankind, population movements and migration have been central aspects of history. People fleeing from natural disasters, such as floods, hurricanes, tornadoes, and earthquakes, should not surprise anyone. We live in times when climate changes are

increasingly disruptive, and the future does not foresee a mild climate but almost extreme heat waves. Therefore, more and more people are expected to migrate for these reasons.

Climate change represents one of humanity's greatest crises in the new millennium. The vulnerability of populations makes displacement in the face of disasters a recurring

phenomenon. Many people are vulnerable and lack resilience due to living in climate 'hotspots' and often poverty-stricken areas, meaning their socio-economic conditions give them an additional reason to leave their homes and, therefore, their country of origin.

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Climate migrations are not happening in this or in the last century, but since time immemorial. For example, archaeological evidence has revealed significant changes in human populations. An example is given by a 200-year drought in the Indus Valley that led to the abandonment of the urban centres of the Harappan Society, which are now in the territory of Pakistan. About 9000–6000 years ago, there were lakes and vegetation in the Sahara. The inhabitants of the Sahel could cross the Sahara to transit it on their way to Europe and Asia (Waldinger & Fankhauser, 2015, p. 11).

It should be no surprise that most climate refugees come from vulnerable communities and low-income countries where climate change is unhappily compounded by other exacerbating factors such as poverty, oppression, and conflict. Among the 20 countries most vulnerable to the climate crisis in the world, 12 of them are mired in long-term disputes. Some notable examples are Yemen, Afghanistan, the Democratic Republic of the Congo, and Somalia, which have internally and internationally displaced citizens. According to the UNFCCC, humanity's current efforts to reduce global warming and greenhouse gas emissions will only stabilise this warming at somewhere around 2.7 degrees Celsius by 2100. If global warming reaches 3 degrees Celsius, that would mean 3.5 billion people living outside the livable limit (Environmental Justice Foundation, 2021, p. 4).

At the 26th UN Conference of the Parties on Climate Change, the UN Refugee Agency highlighted the importance of all parties working together to achieve global net zero, aggregating substantial financial sums that could help communities of people to cope with climate disturbances. UNHCR then urged all parties to „combat the growing and disproportionate impacts of the climate emergency on the most vulnerable countries and communities – in particular, those displaced and their hosts; support vulnerable countries and communities in their efforts to rapidly scale up prevention and preparedness measures to avert, minimise and address displacement“ (the UN Refugee Agency, no date, a).

Drinking water is one of the essential resources on the globe. In many parts of the world, this resource is difficult to access. Global warming can jeopardise access to clean water, triggering migration and worsening living conditions for those forced to move. Climate change can exacerbate people's lack of well-being, increasing existential tension and the desire to migrate. In 2020, UNHCR established teams in Central America and southern Mexico, where three million people were affected by Hurricane Eta. A similar example happened in 2019 when Tropical Cyclone Idai hit the states of Mozambique, Zimbabwe, and Malawi. UNHCR relocated refugee families to other areas where they housed them in tents, providing them with assistance and basic food (the UN Refugee Agency, no date, b).

Climate change is not phantasmagorical, and we all will all be affected by these negative changes. Today, humanity experiences twice as many days when temperatures exceed 50 degrees Celsius compared to what was happening three decades ago. Such temperatures are almost unbearable, but many people have to cope with these temperatures.

This article aims to create a general picture of the migratory phenomenon as a result of climate change, aims to highlight the main causes that lead to the decision of climate migration and review the significant policies and strategies that try to mitigate this issue. Moreover, the article also brings to the fore a series of statistical data that reinforces the imperative need for global decision-making through much more concrete measures and positive interventions that bring transformative changes to those communities of people forced to migrate for climatic reasons. The first part of the article aims at a descriptive part of the issue, in which the lead-

ing causes of forced climate migration are discussed, continuing in the second part with a literature review in which we can learn about the importance of addressing the problems of climate change, which are the global areas most strongly affected, what kind of solutions are proposed to solve the problem, what impact climate change has on disadvantaged and vulnerable communities of people and what are the predictions for our future. The last part discusses the terminology and the issue of international law.

2. The issue and importance of climate change. A brief literature review

In a document issued by the European Parliament, the International Organization for Migration defines environmental migration as follows: „Environmental migrants are those who, due to sudden or progressive environmental changes that adversely affect their lives or living conditions, are forced to leave their habitual residence, either temporarily or permanently, and moving either within their own country or abroad“ (European Parliament, 2020).

The European Parliament website provides some essential data. For example, according to it, the number of people living in an EU country and having citizenship of another country on January 1, 2019, was almost 22 million, representing nearly 5% of the EU-27 population. Several factors contribute to people’s decision to relocate from their country of origin to another country (European Parliament, 2020).

The most frequent cause is socio-political. This may include persecution from ethnicity, religion, race, politics, or culture, which may cause people to leave their country. Fundamentally, the war is a significant cause, from which other sub-causes result, such as armed conflicts – currently in Ukraine – followed by human rights violations and persecution. People leaving behind where they lived will often choose the closest country that allows asylum seekers. In 2019, 295 800 asylum applications were submitted in the EU, but these did not come from within the EU, but a quarter came from Syria, which is still torn by war, then from Afghanistan and Iraq, so from the states where armed conflicts are the order of the day (European Parliament, 2020).

According to the European Parliament, there are also demographic and economic factors for climate migration. These factors shape the way people migrate. It should be taken into account that demographic and economic aspects are central to climate migration, given that those vulnerable individuals or communities are most likely to migrate due to climate reasons. Indeed, suppose the population fluctuates upwards or downwards. If it suffers from ageing or rejuvenation, these aspects will be reflected in the state’s economy on the labour market. They will undoubtedly have effects on migration policies in the destination countries. When discussing demographic and economic migration, it must be correlated with labour standards, unemployment, and the country’s general financial condition. A coveted destination must enjoy a healthy economy, thus high wages, numerous employment opportunities, a higher standard of living than that of the country of departure, and educational opportunities, because they often migrate as a family. A sick economy, a state that presents many socio-economic and political uncertainties, will be avoided by those who migrate. According to the UN International Labor Organization, people who migrated strictly for employment in another country were 164 million in 2017 across the globe, that is two-thirds of international migrants; 70% of them, we learn from the European Parliament’s website, were in high-income countries, 18.6% of them

in upper-middle-income countries, 10.1% in lower-middle-income countries, and 3.4 % in low-income countries (European Parliament, 2020).

According to Brown (2007), when global warming sets in, „disruptions could displace as many as 200 million people to monsoon systems and other rainfall regimes, of droughts of unprecedented severity and duration, and sea-level rise and coastal flooding“; in other words, by 2050, „one in forty-five people in the world will be displaced by climate change“ (Brown, 2007, p. 5). It is undoubtedly challenging to accurately calculate such a migratory phenomenon caused by climate change. Professor Myers himself admitted that although the estimate was based on the best available data, he made a series of „heroic extrapolations“ because it is difficult to say precisely and truthfully how many people would be so affected by climate change to cause them to leave their country of origin.

Climate change is a very complex subject and science, and the impacts of such changes are even more complex – especially when these climate impacts are intertwined with other kinds of implications, such as war, politics, and socio-economic. Some people can absorb the climate shock in one way or another, so some citizens of Iraq could adapt or endure the frequent temperatures of almost 50 degrees Celsius in August. Still, they could no longer bear the pressure, stress and crises in their country from 2003 to the present.

Hurricane Katrina was a prelude to climate-related population displacement, which hit the Gulf of the United States in August 2005. As a result of this devastating hurricane, more than a million people were temporarily displaced. We could say that it was the starting point, a preview of what might happen sooner or later due to meteorological events (Brown, 2007, p. 6).

By the end of the century, Earth is expected to warm by 1.8-4 degrees Celsius. The land affected by constant drought, on which so many of the world's people depend, will increase from 2% to 10% by mid-century. Regarding land affected by extreme drought, by 2099, the percentage will increase from 1% to 30%. The rise in global average temperature will also bring about changes in the hydrological cycle, meaning rainfall patterns will change significantly. This would lead to more frequent and more severe flooding due to heavier rainfall. It is therefore expected that in this grim scenario, periods of drought will intensify, as will increasingly violent storms, floods, and landslides. Another estimate for Asians is that the South Asian monsoon will become up to 20% more robust by 2050. Sub-Saharan Africa will see up to 10% less annual rainfall by 2050 (Brown, 2007, pp. 9-10).

Global warming could cause harvests in Central and South Asia to decline by 30% by 2050. Some fish species could disappear entirely, and fish stocks would migrate to the poles and colder areas, meaning populations that rely on a diet consisting of fish will also decrease. It is not just food and agriculture that would affect people's way of life. Climate change would also worsen people's health: malnutrition and diarrheal diseases would worsen and spread, the malaria mosquito would make more victims, and heart diseases would worsen and multiply. In the Andes, China, and the Indian subcontinent, problems will be caused by melting glaciers that will increase the rate of flooding during the wet season, and water reserves in the dry season will diminish. In Nepal, Peru, and Bhutan, more floods will be caused by glaciers melting in glacial lakes. By 2100 sea levels could rise as much as 82 centimetres, which would have dire consequences (Brown, 2007, pp. 9-10).

According to projections by Nicholls and Lowe, the number of people affected by flooding will increase by 10-25 million per year by 2050 and by 40-140 million per year by 2100 (Brown, 2007, pp. 9-10).

We are talking about large populations in Morocco, Tunisia, Libya, Egypt, Israel, Iraq, Jordan, Oman, Qatar, Kuwait, Saudi Arabia, Pakistan, India, and certain regions of Australia that frequently experience temperatures reaching or exceeding 50 degrees Celsius. For these people, these hot spots are their homes. Even this forced adaptation to which they have been subjected for years may disappear if the climate worsens. Sooner or later, they will have to migrate. They will do it to countries with milder temperatures, with a temperate continental or temperate oceanic climate. They will mostly choose Europe, which is already choked with refugees (for political reasons and endless conflicts). In recent years, Europe has also experienced the staggering effects of record-breaking temperatures: Greece and Spain are just a few examples of countries scorched by wildfires caused by extremely high temperatures. And Greece and Spain are some of the preferred destinations for those who migrate (Vince, 2022).

At a specific turning point in the future, even Europe will no longer be that ideal oasis of refuge from the intensification of climate change. So what will all the people forced to migrate for climate reasons do? Where should we go?

There are currently not many concrete solutions, but there are some starting points. Vulnerable people in areas affected by very high temperatures must be supported to achieve a transformation, a transition from their state of danger and economic vulnerability to safety and comfort. In the countries listed above, people migrate within their borders, usually to the nearest city. However, this is only temporary, as the effects of global warming will spread beyond just a few hotspots. Migrants will therefore choose to migrate to different continents. The ideal place is towards northern latitudes, and states there will have to find governmental and institutional methods to cope with enormous pressures – where could they house millions of forced climate refugees? Would it be moral not to receive them? Would it be ethical to receive some of them selectively? What would happen to the rest? Indeed, the issue of forced climate migration is a subject that presents moral valences that are difficult to deal with in a relatively short time (Vince, 2022).

Another solution proposed in Gaia Vince's article in *The Guardian* is that new cities should be built near the colder poles of the planet, in areas that are thawing and losing ice, one such potential place being Siberia which faces more and more often with temperatures reaching 30 degrees Celsius. Once impenetrable in the face of warming temperatures, Arctic regions have begun to melt. Scenarios that before this century seemed out of the realm of fantasy are already happening – Siberia, Greenland, and Alaska have already had their first fire episodes. For example, peat fires in the Siberian cryosphere in January, even though temperatures were -50C. We are a step or two away from losing the only things safe for us (Vince, 2022).

In 2019, fires destroyed more than 4 million hectares of Siberian taiga forest in a mega-fire that lasted more than three months. Imagine that the cloud of soot and ash that arose from this fire was so large that it covered the area of all the countries that make up the European Union. According to the article's author, fires in boreal forests and arctic tundra will increase up to four times by the end of this century. These forecasts are downright sinister from a climate point of view. In the same article, the author highlights another shocking case. Bangladesh is expected to become uninhabitable. A third of the population lives along a low-lying coastline that would slowly sink. Thus, 10% of the people, i.e. around 13 million inhabitants, will be forced to leave their country by 2050 (Vince, 2022).

All these migratory problems must be correlated with another urgent problem – the demographic situation. The world's population is not stagnating and will not stagnate until 2050. Earth will have to support even more people so that in 2060 there will be around 10 billion peo-

ple. Much of this growth will occur in tropical regions already affected by climate catastrophes. So the people there will have to migrate further north. In turn, the north is suffering from a „hard“ demographic crisis because a small labour force supports an ageing population. There are 300 million people over the age of 65 in North America and Europe, and by 2050, projections show that the population will continue to age and the labour force will shrink. Moreover, the catastrophic events in the USA caused over a million citizens to be displaced in 2018 due to fires, hurricanes, and tornadoes. By 2020, the number of those who migrated for these reasons had reached 1.7 million. By 2022, the U.S. is averaging a \$1 billion climate disaster every 18 days. The cities most at risk are the coastal ones. An unfortunate example is Cardiff, which is predicted to be two-thirds underwater by the middle of this century (Vince, 2022).

Juergen Voegelé, the World Bank's Vice President for Sustainable Development, in a 2021 article called *Millions on the move: What climate change could mean for internal migration*, talks about the fact that most climate migrants move within the borders of their countries. According to the World Bank's Groundswell report, by 2050, there could be „up to 216 million internal climate migrants globally“ (Voegelé, 2021), and the first hotspots of climate migration could begin as soon as 2030, with people leaving their homes because the place they lived in until then can no longer support their lives optimally. The report identified the leading causes: „water scarcity, declining crop productivity, and rising sea levels“ (Voegelé, 2021).

To achieve a reduction in internal climate migration, greenhouse gas emissions must be „reduced to reduce the climate pressures that lead to internal climate migration. This has to be a global effort, and it has to happen now“ (Voegelé, 2021). The author emphasises the need for concrete strategies for climate-induced migration planning. Climate migration must be integrated into broader migration patterns that „can help fuel a country's next generation of skills and jobs in sending and receiving areas. And planning must consider all migration phases: before, during, and after the move“ (Voegelé, 2021). Voegelé attributes to good planning the existence of facilities in the shipping and receiving areas to respond ideally to the needs and aspirations of the populations. The funds are crucial and must be allocated to support the new people still of optimal working age to find opportunities in the labour markets, receive health-care and education and have unrestricted access to public services. Women and young people must receive increased attention in the labour market, these two categories being more vulnerable and affected by unemployment.

In a report, *The climate crisis, migration, and refugees*, John Podesta (2019) cited the example of the March 2019 tropical cyclone Idai, which devastated the south-eastern coast of Mozambique. The UN High Commissioner for Refugees highlighted that 1.85 million people needed assistance, of which 146 000 had to migrate within the state's borders. The cyclone produced a series of floods that damaged 100 000 homes, destroyed 1 million acres of crops, and caused a billion dollars in industrial damage. The report states that „the world is heading towards a future where these unprecedented storms are commonplace“ (Podesta, 2019). Therefore, the global crises generated by these destructive climate events will be increasingly intense and closer to our homes.

In the Western Pacific, sea levels have risen at a rate of 12 millimetres per year, submerging eight islands, and two others are in danger of disappearing underwater. These situations led to the forced migration of islanders to other larger countries. By the end of the century, around 48 islands will be estimated to disappear due to rising ocean levels. The first internationally documented asylum claim occurred in 2015 when the Teitota family sought refugee status in

New Zealand because their island of Kiribati was threatened with extinction. The case reached the New Zealand High Court, but the family's appeal was rejected (Podesta, 2019).

South Asia suffers from rising temperatures, rising sea levels, frequent and intense cyclones, and floods. At the same time, states are experiencing economic growth and urbanisation, and most cities are located in low-lying coastal areas threatened by sea level rise. The World Bank has estimated that the collective economy of South Asia – Bangladesh, Bhutan, India, the Maldives, Nepal, and Sri Lanka – will lose around 1.8% of its annual GDP to climate change by 2050, which could also lead to the migration of up to 800 million people. Nor is North-West Africa free of problems. Sea level rise, intense drought, and desertification will put increasing pressure (Podesta, 2019).

Climate-induced migration can bring several political instabilities to the fore. On the one hand, large migration flows can weaken stability and social cohesion domestically and internationally. In the absence of adequate political frameworks, resource inequalities can be deepened, and xenophobia can be exacerbated, bringing other political and social tensions.

As climate-induced forced migration increases, destination countries will also come under institutional and infrastructural pressures to manage migration flows, and the cost of migration for migrants could increase. As the costs of migration rise, high-income countries will be better able to implement more restrictive policies to discourage migration, and middle-income countries will become the main targets (The White House, 2021).

In Africa, climate-forced migration is shaped by changing rainfall patterns and intensive drought. US foreign assistance focuses on „managing droughts, promoting resilience to shocks and stresses, increasing food and water security, diversifying livelihoods, and improving access to affordable and quality health services through universal healthcare“ (The White House, 2021, p. 14). For example, in the Sahel, the US program focuses on the rural population by developing the capacity of young people to access the labour market, to obtain well-paid jobs. The program also aims to support governments in trying to anticipate, prepare for and act on climate-related migration.

In the Middle East and North Africa, there is a dangerous water shortage in the world. MENA includes twelve of the seventeen most water-stressed countries globally, meaning 60% of the Middle East and North African population suffers from high water stress. U.S. foreign assistance supports the careful and optimal management of vital resources in the region through „environmental activities that focus on climate adaptation, food and water security, and natural resource management“ (The White House, 2021, p. 15). It can be argued that small island states are very vulnerable to climate change, suffering from severe flooding and intense tropical storms. U.S. foreign assistance supports collaboration with partner countries to reduce the impact of disasters. Several programs in the Pacific enhance countries' abilities to „access and effectively manage international funding, promote regional coordination and adaptation policies“ (The White House, 2021, p. 15). The Federated States of Micronesia are also supported in developing disaster preparedness plans. In the Maldives, for example, U.S. foreign aid focuses on adaptation actions for the tourism sector threatened by sea level rise.

2.1. Terminology and the problem of international law

In the discussion about this topic, a problem related to terminology comes to the fore. Should people displaced by climate change be referred to as climate refugees or climate migrants? Such a label is essential, as Brown (Brown, 2007, p. 7) notes, having implications not only se-

mentally but primarily with implications for the international community's obligations under international law. Since the 1990s, the media have referred to these displaced people as „environmental refugees“ and „climate refugees“ to heighten the dramatic effect simultaneously. The most readily available explanation is that such people are forced to seek refuge by adverse climatic events. Therefore, the word „refugee“ also has sentimental implications, as it is consistent with the idea of coercion. On the other hand, the term „migrant“ is more volatile. It is seen in the public imagination as a term that denotes something negative. However, the word presents a voluntary movement of a person towards a lifestyle that is more attractive to him.

However, the 1951 United Nations Convention and the 1967 Protocol relating to the Status of Refugees make it clear that the term is used for people fleeing persecution. Moreover, when the word „refugee“ is used, it is expected that once the problem triggering displacement has ended, the person will return to the place of origin. But given that we are talking about a primary reason that resides in climate change, it is hard to believe that the problem could go away in such a way as to cause the citizen to return home

Internationally, there is no concrete definition of environmental migrants, and no institution has prerogatives in collecting data on their exact numbers or providing essential services. Jeff Crisp from the UN Refugee Agency tried to include the complexity of this phenomenon in a definition called „forced migrant,“ in a description as follows: „People who are displaced from or who feel obliged to leave their usual place of residence, because their lives, livelihoods, and welfare have been placed at serious risk as a result of adverse environmental, ecological or climatic processes and events“ (Brown, 2007, p. 8).

By the 1970s, climate change had been linked to migration on the international scene, with the United Nations Environment Program's interest in environmental issues since 1972. However, Ravenstei attributed migration movements to an „unattractive climate“ in 1889, and Churchill Semple correlated the movement of populations in search of more favourable land and a milder climate in 1911. Moreover, the first scientific studies did not appear until 1980, with the United Nations Environment Program's 1985 „Environmental Refugees“ report. ‘Environmental migrants’ and ‘climate refugees’ have begun to be introduced on the international stage in debates on migration and climate change (Jaldi & El Ouassif, 2022, pp. 5-14).

The Report on the Impact of Climate Change on Migration, prepared by the White House in 2021, discusses the phenomenon of forced climate migration in terms of „climate migration“ or „climate displacement“. A distinction is made in that migration can be „temporary, seasonal, circular or permanent and can be forced by increasingly severe conditions or emerge as a proactive strategy in the face of climate impacts on livelihoods and well-being“ (The White House, 2021, p. 5). In the Report, migration related to climate change is not an option for affected communities, as „populations are trapped“ in hostile and threatening circumstances. In the US, extreme climate events can lead to the permanent relocation of low-income populations that are exposed to chronic conditions over time. Thus, a foreign assistance policy in the US supports the human security of those who migrate. This foreign aid policy combines a financial component for development, humanitarian assistance with technical expertise, and a piece based on partnerships to mitigate the effects of migration and climate change. Even so, this foreign assistance policy is insufficient and does not optimally respond to all the complex issues of forced climate migration (The White House, 2021, p. 5).

In the article written by Piguet and Pécoud (2011), *Migration and Climate Change: An Overview*, the term „environmental migrants“ is used as those people who have been described

„as forced to leave their country and as moving exclusively for climate change“ – related reasons, while the tone of the debate was future-oriented – hence favouring usually alarmist predictions rather than empirical analysis of already-existing flows“ (Piguet, Pecoud & de Guchteneire, 2011, p. 3).

When discussing climate refugees or related designations in public, academic, or scientific writing, the aspect of injustice must also be taken into account, in the sense that global warming affects those communities of people who bear the slightest historical blame for greenhouse gas emissions. Greenhouse effect and these communities are precisely those who are forced to leave their place of origin to move to other foreign places to live.

The Environmental Justice Foundation defines climate refugees as „(p)ersons or groups of persons who, for the reason of a sudden or progressive climate-related change in the environment that adversely affects their lives or living conditions, are obliged to leave their homes either temporarily or permanently, and who move either within their country or abroad“ (Environmental Justice Foundation, 2021, p. 3). The Environmental Justice Foundation’s description is complex and takes both humanitarian and justice aspects into the debates over terminology, as „climate refugees are victims of anthropogenic climate change, needing and deserving the full support and protection of all human rights consecrated“ (Environmental Justice Foundation, 2021, p. 3).

There is one way, however, in which international refugee law could be applied to climate refugees, only if they „cross a border in the context of a conflict related to environmental degradation“ (Environmental Justice Foundation, 2021, p. 8) or if they „cross the border as a result of obstruction or withholding of aid and assistance in following a climate-related natural disaster“ (Environmental Justice Foundation, 2021). Practically, the two classifications retain a degree of persecution related to the criteria established in the 1951 Convention and also involve movement across a political border. Still, it is not easy to establish a legal causality. Moreover, to be considered a refugee under the 1951 Convention, there must be a „well-founded fear of persecution“ (Environmental Justice Foundation, 2021). Still, in the case of climate refugees, it is not concrete who the agent of persecution is. Some scholars have proposed re-defining „persecution“ by de-territorializing it during the climate crisis so that climate-induced displacement is also taken into account so that a new legal framework can then be created to include climate refugees.

Also, in this case, the UN adopted new non-binding international agreements on displacement and migration in 2018, namely the Global Compact on Migration and the Global Compact on Refugees. Those who leave their country due to the climate crisis are therefore not considered refugees and are therefore not included in the Global Compact for Refugees (Environmental Justice Foundation, 2021).

A welcome decision was made in October 2021 when the United Nations Human Rights Council adopted a resolution recognizing the human right to „a safe, clean, healthy and sustainable environment“ (Environmental Justice Foundation, 2021, p. 19) and also recognizing the impact of the climate crisis on human rights, stating that: „environmental degradation, climate change, and unsustainable development constitute some of the most pressing and serious threats to the ability of present and future generations to enjoy human rights, including the right to life“ (Environmental Justice Foundation, 2021).

Moreover, the Council also established a new UN Special Rapporteur for promoting and protecting human rights in the context of climate change. A series of decisions of the European Court

of Human Rights recognizes the right to life enshrined in Article 2 of the ECHR as being linked to the right to a healthy environment and that „the obligation to protect the right to life may also include protection against environmental harm“ (Environmental Justice Foundation, 2021).

We already know climate migrants are not granted refugee status under the 1951 Refugee Convention, which provides legal protection only to people fleeing persecution based on „race, religion, nationality, political opinion or a social group“ (Watson, 2022).

Currently, as previously stated, no country offers asylum to climate migrants. There is some possibility of providing temporary protections. Still, this action would be insufficient, given that one state or another would not have the necessary capacities to fix the problems and crises that arise due to the following natural disasters. Argentina created a special humanitarian visa in 2022 for Mexico, Central America, and Caribbean residents. They were relocated as a result of natural disasters to be able to stay elsewhere for three years (Watson, 2022).

Studies dealing with climate migration create a distinction based on the rhetoric used. For example, a „maximalist/alarmist“ approach supports the existence of a direct causal relationship between global warming and forced migration. Those who support this school of thought are the ones who gave the name „climate refugee“. The main criticism of this approach is that it is linear and lacks the psychological component as a determinant of migration. A second approach is the „minimalist“ one, whose proponents are characterised by scepticism towards the term „climate migration“. They do not deny environmental factors in migration decisions but consider migration and climate indirectly related (Jaldi & El Ouassif, 2022, p. 6).

The legal rights and status of individuals who migrate due to climate change and natural disasters remain unclear. Thus, according to international law, refugees are „persons outside their country of origin who have fled because of a well-founded fear of persecution“ (Jaldi & El Ouassif, 2022, p. 14). A drawback of this classification is that many people decide to stay in their countries of origin, and the reasons that lead to the decision to migrate are not of the nature of persecution but climate considerations. Therefore, they do not fit the international legal definition of a refugee and cannot receive special protection under the 1951 Refugee Convention and its corresponding Protocol. So this legal indolence leaves so many people vulnerable, forcing them to move to other countries and continents for environmental reasons without permits, travelling in constant threat of being exploited, kidnapped, or abused (Jaldi & El Ouassif, 2022).

At the time of writing, no global body or organisation oversees the global movement of people. Governments are known to belong to the International Organization for Migration, but it has the status of being an „independent associated organization“ of the UN, not a real UN agency. Therefore, IOM is not directly supervised by the UN General Assembly, and it does not have the role of establishing standard policies. On the other hand, migrants fall within the sphere of management of the states' foreign ministries more than within the sphere of operation of the labour ministries. Therefore, decisions and policies are not coordinated with the labour market (Vince, 2022).

Brown (2007) discusses the urgent need for the issue of forced climate migration to be recognized at the international level so that the problem appears on the international agenda and solutions are sought so that these forced climate migrants have some net benefits from this status and international recognition of the problems they face. Also, countries that may host forced climate migrants need to develop policies that focus on reducing the vulnerability of at-risk citizens and improving their resilience, especially that of affected communities. An exam-

ple is Pakistan, where irrigated agriculture uses 85% of the country's freshwater supply. Still, due to modest infrastructure, leakages and evaporation occur, reducing efficiency to 40-50 per cent (Brown, 2007, p. 29).

An interesting example is provided by Tajikistan, where a significant number of citizens of this state migrate to the Russian Federation through temporary migration. This temporary labour migration from Tajikistan is meant to support the state's economy due to remittances from Tajik migrants abroad. According to the most recent data, 40% of households have at least one member who migrated abroad, and only 3% of households had a member who had also migrated within Tajikistan in 2018 (Murakami, 2020, p. 2). Also, according to the study, 99% of international migrants chose the Russian Federation due to the favourable migration corridor and the historical connection with the former Soviet Union. Remittances from migrant labour have accounted for around 30-50% of Tajikistan's GDP since 2000 (Murakami, 2020, p. 2).

2.2. Examples and further discussions about migration

In conform with *Climate Change and Migration in Vulnerable Countries*, written by the International Organization for Migration (IOM), some examples of migration taking place in a changing climate are identified, and these are:

„(a) communities in Pacific islands forced to plan for further relocation inland due to coastal erosion; (b) storms in populous Asian countries displacing tens of thousands of people; (c) migration of fishermen from coastal villages in West Africa to cities because of the depletion of fish resources linked to ocean acidification; (d) rural to urban migration in Central Asia fuelled by climate impacts on rural livelihoods; (e) nomadic populations in East Africa altering their traditional migration patterns to cope with the impacts of desertification; and (f) droughts in Latin America leading to internal and international migration“ (International Organization for Migration, 2019, p. 1).

According to the same source, between 2008 and 2017, there were 24.6 million people who were displaced per year. The document created by the IOM chose to discuss the phenomenon in question by referring to „climate migration,“ being „a non-normative and non-prescriptive definition“ (International Organization for Migration, 2019). IOM chose this definition as a result of the fact that it is the definition used and accepted by the International Organization for Migration itself, i.e.: „Climate migration is the movement, within a State or across an international border, of a person or groups of persons, who are obliged to leave their usual place of residence, or choose to do, either temporarily or permanently, predominantly for reasons of sudden or progressive change in the environment due to climate change“ (International Organization for Migration, 2019).

In discussing „climate migration“, IOM grouped countries where migration is taking place into „Least Developed Countries (LDCs)“, „Landlocked Developing Countries (LLDCs)“, „Small Island States in (SIDS)“, being affected differently due to the structural constraints and geographic disadvantages they have. It is also stated that these countries contribute the least to climate change. LDCs, LLDCs, and SIDS total 91 countries with a population reaching 1.1 billion people. Among them, LDCs are the poorest and most vulnerable segment of the international community, suffering from many development problems and economic and health crises due to epidemics (International Organization for Migration, 2019, p. 4). On the other hand,

LLDCs are also affected by infrastructure and trade hiccups, and there is a high cost of transit and trade. Moreover, SIDS are geographically rarefied, characterised by being „landlocked“ and thus face „marginalization due to small size and distance from world markets“ (International Organization for Migration, 2019, p. 4). Fundamentally, sea level rise due to climate change is a challenging and real threat to the existence of inhabited territories.

These groups of countries are supported as a result of programs such as the Istanbul Program of Action (IpoA) for the Least Developed Countries and the Vienna Program of Action (VpoA) for Landlocked Developing Countries at sea and small island developing states. These programs aim to increase cooperation and coordination mechanisms regarding climate change migration (International Organization for Migration, 2019, p. 5). According to the cited document, LDCs were socioeconomically affected in 2017 by natural disasters, which significantly impacted 23 million people. This mainly includes the devastating floods in Angola, Bangladesh, Haiti, Malawi, Myanmar, Nepal, and Niger. On the other hand, the severe drought affected the citizens of Angola, Chad, Mauritania, and Niger. Furthermore, in Bangladesh, Haiti, Madagascar, Mozambique, Myanmar, and Vanuatu, more than 4.5 million people were affected by severe cyclones. Moreover, one-third of people living in LDCs live on \$1.9 a day, and two-thirds live in impoverished rural areas (International Organization for Migration, 2019, p. 10).

The phenomena with rapid onset and immediate effect on the inhabitants are tropical cyclones, storms, and floods, which cause displacement of populations. Estimates found in the article reveal that between 2000 and 2008, nearly 100 million people were affected by floods and almost 40 cyclones and tropical storms. However, the authors note that it is difficult to assign many people affected by climate change-induced increases in migration (Piguet, Pecoud & de Guchteneire, 2011, p. 7).

The article understands that these rapid-onset phenomena lead to temporary internal migrations, not long-term and long-distance migration. One reason is that the affected people live in developing countries and do not have the resources to travel long distances. Most of those who move temporarily tend to return to rebuild their homes. There were also exceptional situations, such as in 2004 when the Indian Ocean tsunami occurred, when relatives of affected families moved to the devastated area to support family members. This event was a magnet that attracted people but did not remove it (Piguet, Pecoud & de Guchteneire, 2011, p. 8).

Furthermore, between 2000-2008, around 83 million people were affected by extreme temperatures, drought, and wildfires, and water scarcity could affect a billion people by 2050 in Central Asia, from South, East, and South-East (Piguet, Pecoud & de Guchteneire, 2011, pp. 8-9). When discussing the mobility of populations due to lack of drinking water due to drought, countries such as the Sahel and Ethiopia in Africa, Argentina and Brazil in South America, Syria and Iran in the Middle East, and Central and South Asia are involved. Furthermore, studies have found that, in an analysis of data available in 78 countries over a three-decade period, rainfall deficits have increased rural exodus in Sub-Saharan Africa but not elsewhere in the world, and this departure led to the urbanisation of Africa (Piguet, Pecoud & de Guchteneire, 2011, p. 9).

Also, sea rise level is an irreversible process. In the absence of measures to attack the negative impact of this phenomenon, such as the creation of dykes, the migration would become definitive and planned (Piguet, Pecoud & de Guchteneire, 2011, p. 11). According to Intergovernmental Panel on Climate Change (IPCC) estimates, sea level rise would be 0.3 to 0.8 me-

tres by 2300, but the new estimates could speed up the process. Tuvalu and the Maldives are the islands most threatened in the short term because they are located a few centimetres above sea level. The following threatened places are river deltas and estuaries in South Asia (Indus and Ganges-Brahmaputra) and East Asia (Mekong, Yangtze), where population vulnerability amounts to 146 million people are concerned and worried about sea level rise (Piguet, Pecoud & de Guchteneire, 2011, p. 12).

It has been concluded that migrations are generally affected by five factors: political, economic, demographic, social, and environmental (Piguet, Pecoud & de Guchteneire, 2011). These factors can interpenetrate. Climate change also affects other factors, such as economic factors, because they affect livelihoods, wages, and markets. Furthermore, climate change can also affect political factors, as they impact scarce resources, governance, and political tensions.

When talking about climate migration, migration can be voluntary to the extent that „the element of choice is predominant,“ and we discuss forced migration if it „occurs where the space for choice is more limited“ (Weerasinghe, 2021, p. 3).

Robert McLeman of the University of Ottawa discusses climate processes and events correlated with forced migration. It highlights the climatic factors on the one hand. Climate processes are defined as changes that start slowly; an example is sea level rise. This category also includes desertification or food insecurity. Sea level rise will eventually cause certain coastal areas in island states to become uninhabitable. However, this does not immediately force residents to leave their place of origin. This forcing may be necessary for a few years or even decades. For example, some women in the Sahel currently walk as far as 25 kilometres daily to get water. The increase in global average temperature will increase the distance travelled, which will eventually force these women to move to another country (Brown, 2007, pp. 10-11).

There are also non-climate factors that shape migration. Most natural disasters are artificial, acknowledging that we live in the Anthropocene era. A natural hazard such as a storm is a „natural disaster“ as long as the community facing the battery is highly vulnerable to the storm’s impact. On the other hand, the report’s author points out that a tropical typhoon can become a disaster if there is no early warning system for the population, if the houses are precariously built and if people are not prepared well enough to act in case of a storm. So we are also talking here about the capacity of a community to be resilient. It is essential to look at determinants of vulnerability, such as national and individual wealth, that can increase the resilience of communities and individuals. Between 1994 and 2003, 44 people were killed per natural disaster event in countries with high human development. On the other hand, an average of 300 people were killed per event by disasters in countries with low human development (Brown, 2007, pp. 10-11).

Sustainable Development Goals 8, 10, and 17 discuss the need for well-planned and managed migration policies. Still, they are not linked to climate change, so there is no intersection between climate and migration. Nor does Sustainable Development Goal 13, which focuses on climate change, correlate the importance of climate change mitigation through policies and urgent measures with the migration situation concerning climate change.

The AAAA or Addis Ababa Action Agenda is a 2015 document of the Conference on Financing for Development, laying the foundations for desirable financing for the Sustainable Development Goals. AAAA also provided the infrastructure financing framework and the increase in the weight of development assistance granted to the least developed countries. AAAA focuses on strengthening disaster resilience and how sustainable development can be maintained and further developed. Moreover, another highly notable aspect is that AAAA rec-

ognizes that migrants can contribute positively to economies by sending and receiving localities (Stapleton et al., 2017, pp. 24-25).

In addition, the Paris Agreement contains two references to migration and displacement. On the one hand, it refers to the vulnerability of migrants, but without including their capabilities, and calls on states to „respect, promote and consider their respective obligations on human rights“ (Stapleton et al., 2017, p. 25) when taking measures to address climate change. The second mention is made regarding losses and damages that require a task force to „develop recommendations for integrated approaches to avert, minimise and address displacement related to the adverse impacts of climate change“ (Stapleton et al., 2017, p. 25). Another notable aspect occurred at COP 21 when the Parties to the Convention (UNFCCC) requested the Executive Committee to establish a Task Force on Displacement (TFD), and among the members of this task force is the International Organization for Migration, the International Labor Organization or the International Federation of Red Cross Societies. This Task Force on Displacement has been given a 2018 start date for a five-year work plan, and the work stream includes migration, displacement, and human mobility (Stapleton, 2017, p. 25).

3. Conclusion

The number of climate migrants will continue to grow due to worsening climate conditions and global warming. The chaos that will be created in a few decades will be almost impossible to manage the governments of the world states. Indeed, real chaos will be caused in the lives of the indigenous populations who will have to coexist with thousands, tens of thousands, hundreds of thousands, or millions of new people who will enter the territory of their countries.

The last significant wave of refugees occurred in 2022 due to Russia's invasion of Ukraine, which generated at least a diplomatic conflict globally. Thus, the EU leaders decided together to adopt a policy that would allow the opening of Europe's borders for refugees fleeing the conflict provoked by Putin's Russia. Most of the refugees headed to Poland and Romania, where they were supported with accommodation, food, and help to overcome difficult times. The people's openness also helped the central governments and the volunteers, who were actively involved in helping the Ukrainian refugees, offering them accommodation, food, transport, and spiritual support, but foreign language camps were also established, and they collected donations through huge efforts. This help from civil society has taken some of the weight off the shoulders of governments out of the blue with the refugee crisis in Ukraine. Climate change is warming and acidifying the oceans; ice caps are melting, as well as glaciers and snowpacks; sea levels are also rising at alarming rates; little by little, record temperatures have been reached across the globe in many areas of the world, storms, hurricanes, and cyclones are getting fiercer, as are floods, droughts, and wildfires.

Therefore, readers of the article could understand that climate refugees mainly come from vulnerable communities and communities with low and modest incomes, and the exacerbating factors are poverty, oppression, and conflicts. As can be observed, among the 20 most vulnerable states of the world, 12 of them are in long-term internal conflicts. Indeed, climate change only worsens a series of tensions that constantly grind the well-being of people already affected by the socio-economic situations or the internal wars of their countries.

The article demonstrated through statistical data that global warming is not a myth, given that the world is experiencing double the number of days when temperatures exceed 50 de-

degrees Celsius compared to levels 30 years ago. The article fulfilled its purpose of bringing to the fore the valences that the subject has through the prism of terminology, whether it is discussing environmental migration, climate change migrants, or climate refugees.

The readers were able to understand the damaging and devastating effects that climate change can have, especially from devastating hurricanes, but also the consequential disruptions that monsoons can have, the global system of increasingly frequent rains, droughts, and floods. We were also able to see future projections and what our world might look like if climate change continues and if the goal of limiting global warming to 1.5 degrees Celsius above pre-industrial levels is not met.

Moreover, above all, it was possible to note the paradox, painful by the way, of climate change – how the most vulnerable, the least „guilty,“ the states that pollute the least, and this is statistically proven, suffer the most from global warming, especially since their populations are the most vulnerable. On the other hand, the paradox is all the more difficult to understand and morally justify when the countries that pollute the most, which have potent companies that continue to profit from the intensive use of fossil fuels, are the polar opposite of those impoverished countries which were specified in the article.

Humanity needs a multilateral strategy and a well-developed legal framework that can quickly respond to problems of any nature, whether it is access to running water, food shortages, agricultural degradation, violent conflicts, or climate change.

Conflicts of interest

The author declares no conflict of interest.

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