

Defining, Counting, and Legislating on Climate Migration

Introduction

The largest problem that we face as humanity is climate change. Every day, an increasing number of people are forced out of their homes due to man-made and natural disasters. When climate change intensifies, the urgency to respond and offer humanitarian aid does the same. In this paper, I will examine three main topics. Firstly, I will uncover the many definitions that academics, researchers, and politicians have derived for an individual who has been displaced by the effects of climate change. I will look at multiple academic sources and compare and contrast both the advantages and disadvantages of certain definitions, before touching up with what the ideal definition may look like. Secondly, I will turn to the problem of estimating the amount of people displaced as a result of climate change. There are many different methods and factors to take into consideration when counting those affected, and I will look at the methods of doing so as well as touching on the political consequences of the method that we may choose. Finally, I will briefly touch on policy and find the correct legal frameworks that can be introduced to solve the listed problems, and how states, governments, and international organisations can best provide for those in need, before summing.

Defining a ‘Climate Refugee’

As I will examine in the next section, millions of people are displaced by environmental and climate-related occurrences every year, however there is no agreed legal category or definition for those who experience this. As I will explore, giving an actual legal definition to a climate refugee will enhance their legal protection, access to state and international aid and enhance the public's perception of their struggles to draw attention to the problems they face. It would also be the first step in placing a responsibility on nations to grant help to those who

need it in a humanitarian crisis. A common definition for a climate migrant or environmental refugee is also important to lay down as it would determine the level of disaster for a person to have undergone to be eligible for legal protection, humanitarian aid, or resettlement options. For example, in 2025, a couple in Inchicore, Dublin were forced to move out of their house as part of their garden collapsed into a river (Irish Times, 2025). Even though they were the subject of migration due to environmental factors, we would not necessarily consider them to be ‘climate migrants’ in the same way as a whole village in El Salvador having nowhere to live after they are hit with a category 4 hurricane.

The first mention of a similar idea to a ‘climate refugee’ came in the wake of the 1986 Chernobyl nuclear power plant disaster. Egyptian environmental scientist, Essam El-Hinnawi coined the term ‘environmental refugee’ relating to major environmental disasters rather than specifically to climate change, however this rhetoric influenced some of the definitions of a ‘climate migrant’ or a ‘climate refugee’. The definition is;

‘those people who have been forced to leave their traditional habitat, temporarily or permanently, because of marked environmental disruption (natural and/or triggered by people) that jeopardised their existence and/or seriously affected the quality of their life.’

which can be broken down into three broad categories for consideration (Stojanov et al., 2014):

1. Temporarily displaced with potential opportunity to return
2. Permanently displaced due to irreversible changes
3. Voluntary long-term migrants seeking better living conditions.

While this was the first instance of any sort of definition for people displaced on environmental grounds, the interpretation is widely criticised for being overly broad and

focusing solely on environmental hazards with no distinction for climate-specific disasters. This belief is explored in the short paper titled ‘Contextualising typologies of environmentally induced population movement’ by numerous authors. They analyse that the categories are not ‘clear-cut’, and that Category (3) involves several subjective judgements while Category (1) speaks to only the “opportunity to return” and so might overlap with Category (3).

As I mentioned, the El-Hinnawi definition paved the way for subsequent definitions to be formed ever since. Naturally, British environmentalist Norman Myers expanded the definition in a 1997 paper to include socioeconomic factors in addition to their intersectional environmental counterparts.

‘people who can no longer gain a secure livelihood in their homelands because of drought, soil erosion, desertification, deforestation and other environmental problems, together with associated problems of population pressures and profound poverty. In their desperation, these people feel they have no alternative but to seek sanctuary elsewhere, however hazardous the attempt. Not all of them have fled their countries, many being internally displaced. But all have abandoned their homelands on a semi-permanent if not permanent basis, with little hope of a foreseeable return.’

In his paper, Myers described that displaced people are not only pushed by environmental factors alone, but also by economic vulnerability and population stress, making displacement an intersectional and multifaceted phenomenon. He also notes that until then, displaced people tended to refer to those who crossed country borders, where in this paper he recognised that many displaced individuals remain within their own countries as internally displaced persons (IDPs).

In analysing this, a shortfall of Myers definition is that it is overly inclusive and equally vague, which makes it difficult to superimpose into law, policy, or treaty. This leads us to the definition provided by the United Nations High Commissioner for Refugees (UNHCR) Office. Rather than referring to those displaced as ‘migrants’ or ‘refugees’, they call them ‘environmentally displaced persons’ to respect the legal restrictions of the 1951 Refugee Convention. The definition reads 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”.

How this definition differs from those mentioned previously is the emphasis on risk to life, welfare, and livelihoods by major environmental and climate events. While it looks beyond material damage as covered by the previous definitions, it still fails to automatically grant any legal protection to those displaced by environmental disruptions. This was not an accidental shortfall, however. The UNHCRs function is specifically to avoid legal overstepping that could wrongly dilute the pool of people defined as ‘refugees’, but nonetheless, there is still a lack of enforceable rights for those affected under the usage of this definition.

The final definition that I will examine is the one utilised by the International Organisation for Migration (IOM). The IOM purposely avoids referring to displaced individuals as ‘refugees’, rather opting for the term ‘environmental migrants’ to reflect both voluntary and involuntary movements, across borders or within a nation. The definition is as follows (IOM, 2007);

‘Environmental migrants are persons or groups of persons who, for compelling reasons of sudden or progressive changes in the environment that adversely affect their lives or living conditions, are obliged to leave their habitual homes, or choose to do so, either temporarily or permanently, and who move either within their country or abroad.’

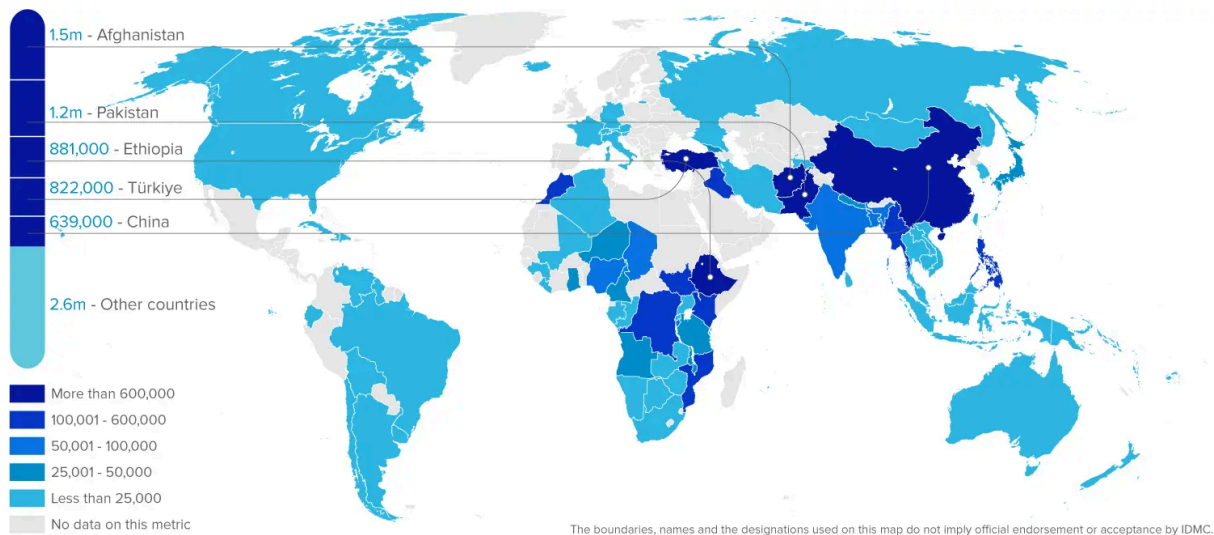
This definition is arguably the most detailed that I have examined yet - it includes displacements caused by both disasters that arise suddenly (such as hurricanes and tsunamis), as well as gradually (desertification and sea-level rising, for example). Its framing is also adaptable and applicable to the wide spectrum of environment-related situations. However, it still follows the same flaws as the previous definitions I have examined; and that is that as it is a working definition, it does not establish legal rights or obligations for displaced individuals or nations.

In short, there is no adequate definition of a ‘climate migrant’, or ‘refugee’, that sufficiently defines the complexity and diversity of climate or environmental-induced displacement without neglecting the legal clarity and enforceable protections required to provide rights for displaced individuals while simultaneously placing an onus on states to assist those in need.

Counting Displaced Individuals

The Internal Displacement Monitoring Center (IDMC) is the world’s leading source of data and analytics on internal displacement. Their main function is to analyse data and produce reports on internal displacement, which is to be used by governments and policymakers to reduce the amount and improve the lives of Internally Displaced People (IDPs). They produce an annual report entitled the Global Report on Internal Displacement (GRID) to provide regular oversight of the amount of Internally Displaced People and the reasons as to why they become displaced. The 2024 report, examining figures from 2023, their most

recent, tells us that there were 75.9 million Internally Displaced People, an increase of 4.8 million on the 2022 figure of 71.1 million. The report continues to tell us that of those 75.9 million Internally Displaced People, 68.3 million were displaced by conflict and violence and a further 7.7 million by disasters (IDMC, 2024).



While it is clear that a majority of the figures published in the most recent iteration of the GRID report stem from conflict (89.98%, to be exact), the report is successful nonetheless at highlighting the enormous amount of people forced to leave their place of home due to natural or other environmental events. It should be noted that the IDMC focuses on internal displacement, where individuals move within their own countries borders, and does not look at inter-state movements. This is relevant when we are discussing terminology and definitions, as mentioned in the previous section, an important point to consider given the definition of a climate ‘refugee’, those who are assumed to move across international borders. However, the focus of the IDMC on internal movements is beneficial as it allows us to gain a more accurate understanding of displacement dynamics, especially in areas where the effects of climate change are felt the hardest.

These figures provided by researchers and analysts at the IDMC prove that while less than conflict-related migrants, those displaced by environmental means already form a significant and measurable reality, even if displacements occur within national borders. The credibility of this data is also to be acknowledged, as the IDMCs figures are used by the United Nations, recognised by most major national governments, and frequently cited in academic research and discourse. This data is a cornerstone of frequent political communication and policy development, often shaping the framework or direction a policy may take.

While analysing figures for displaced individuals over the past number of years is useful in crafting mitigating policy, we should also account for predictions made by professionals and academics. A notable prediction from Norman Myers, made thirteen years ago in 2002, forecasts that there will be 200 million people displaced by both slow-onset climate degradation and sudden disasters by the year 2050 (Myers, 2002). While Myers' estimates have been widely received as influential, some academics and researchers believe that his estimates are based on broad assumptions and lack empirical evidence. Two such individuals are Frank Biermann and Ingrid Boas who in 2010 adopted Myers' estimate yet they labelled it as "conservative" (Biermann and Boas, 2010).

The first major estimation of the millennium to differ in magnitude from Myers' estimate came in 2018 from Rigaud et al. who put forward an estimate of 143 million migrants specific only to Sub-Saharan Africa, South Asia, and Latin America could be forced to resort to domestic migration by 2050 as a result of the slow-onset consequences of climate change (The World Bank, 2018). Obviously smaller than both the Muers and Biermann and Boas estimates, this prediction is region-specific, which is beneficial as it trials a new model that can provide a more accurate and localised estimate of the amount of climate refugees we will have in any given area by any given year.

If we turn to statistics provided by the International Organisation for Migration (IOM) in 2019, they recognise the fact that there is a large range in climate displacement forecasts, noting that there are some as low as 25 million and as high as 1 billion by 2050. Therefore, they deliberately avoid endorsing any one given estimate and cite the methodology and the difficulties in isolating climate change as the lone factor as their uncertainties (Apap, 2019).

It is vital to remember that while professionals, academics, and organisations alike provide us with crucial estimates and figures that act as a baseplate for adequate and meaningful policy to be created, numbers always come with inaccuracies and can risk over or under-simplifying the targets or misrepresenting the problem at large.

The media plays a large role in the shaping of the public's perception of climate migration and the facts and figures associated with it. It is obvious that headlines including numbers such as '200 million climate refugees by 2050' are gripping, but it fails to remember that these numbers are not to be taken as fully accurate and exist on unstable empirical foundations. The International Organisation for Migration has even stated themselves that any estimates are to be interpreted with caution, and that "repetition does not make the figures any more accurate" (Brown, 2008). There are often examples of published news sources taking advantage of these figures and writing alarmist headlines to entertain vague generalisations. NetZero Watch explored this, and found the BBC were guilty of *"institutional alarmism as a new report reveals the BBC's persistent exaggeration and false information when it comes to climate and weather-related news."* (Homewood, 2022). Overall, the public are often misinformed about climate change and the consequences of such, which leads to an increase of climate anxiety among the population and mounting public pressure against politicians to enact unnecessary or untimely political decisions.

In a modern political landscape, the conversation surrounding large-scale climate displacement figures, coupled with the rise in misinformation and disinformation leads to a change in the outlook on climate migration from a humanitarian standpoint to a securitisation issue. Jane McAdam, Scientia Professor of Law at the University of New South Wales, argues in her 2012 book *Climate Change, Forced Migration, and International Law* that there is a recent surge in framing climate migrants as threats to a nation rather than a group of individuals forced from their homeland in need of humanitarian assistance. In her book, McAdam states that “*alarmist predictions*” regarding the amount of people displaced by climate change has “*fuelled the idea that climate-related displacement is a threat to international security*” (McAdam, 2012). This framing is true in Europe, with many governments now controlled by right-wing, nationalist, and populist actors seeking to create a divide between those attempting to come to their country for humanitarian aid and those already residing there. For example, Germany's Chancellor, Friedrich Merz and his coalition government have adopted stricter immigration policies, including suspending family reunification for immigrants arriving from countries such as Syria and Afghanistan, nations that are disproportionately affected by climate change, drought, and famine. As McAdam explores, “[*some European states*] *focus on mass movement leverages an anti-immigration-security agenda*”, further noting that “*a number of developed states have already ‘flipped’ the security discourse away from the human security of the displaced, towards an insular self-protection response*” making it unappealing or increasingly difficult for climate migrants to come to European states to seek international aid (McAdam, 2012).

Building on the critiques of inflated projections and their subsequent political and social consequences, it is necessary to examine the deeper theoretical divide between those who see climate change as the dominant force behind mass migration and those who highlight a more cautious, context-specific interpretation. There are two dominant schools of thought that are

adapted when taking a view on climate migration, the maximalist and minimalist view. Those who adopt a maximalist approach would view climate change as the main catalyst of migration. They would assume that future patterns of migration would reflect large displacements due to uninhabitable natural conditions, such as rising sea levels or prolonged periods of drought. In terms of estimating an amount of climate refugees by a certain date, say 2025, they would also believe that 200 million people would be guaranteed, however it would be too conservative of an estimate. An example of someone who adopts this maximalist approach would be Norman Myers, who I have already mentioned. In his 2002 paper *Environmental refugees: a growing phenomenon of the 21st century* (Myers, 2002), he is quoted as saying;

'When global warming takes hold there could be as many as 200 million people overtaken by disruptions of monsoon systems and other rainfall regimes, by droughts of unprecedented severity and duration, and by sea-level rise and coastal flooding.'

On the other hand, some adopt a more minimalist approach to the situation. This view would consist of the belief that climate change is rarely the sole cause of migration, but rather it is a small factor in a bigger set of conditions at play, like poverty, bad political governance, and armed conflict. Minimalists would call for carefulness when quoting high estimates as they may be seen as a political misuse of research. Jane McAdam, who I quoted earlier, would be an academic who would embrace this approach. In her 2012 book *Climate Change, Forced Migration, and International Law* (McAdam, 2012), she said;

'Climate change may be one of many factors contributing to movement, but it is rarely the sole cause.'

There are some shortfalls to be aware of when discussing numbers and measuring individuals displaced as a result of climate change. Going back to definitions, as discussed in the first part of this paper, most climate-related movement to date is internal, as proven by the IDMC figures stated at the beginning of this section. Therefore, it would be a misnomer to refer to them as a whole as ‘climate refugees’, legally speaking. We should note that the cycles of climate-induced displacement have already begun, and are definitely on course to escalate. This rise in migration puts additional pressure on the asylum systems of the European Union and its member states, often creating a political discourse that fuels the rise of certain right-wing movements and the subsequent introduction of harmful policies.

Change in Law and International Alignment

Now that we have discussed both the methods of defining and measuring the amount of individuals displaced as a result of climate change, the discussion should focus on policy, specifically determining what kind of legal framework can be enacted to protect such individuals. The first point I will discuss is with reforming the 1951 Refugee Convention. This belief is not a popular one, with many United Nations agencies, such as the International Organization for Migration and the United Nations High Commissioner for Refugees adopting the belief that reform is not possible. In her 2019 European Union briefing paper, Joanna Apap said that it was “*not opportune or feasible to widen the definition of refugees provided in 1951*” (Apap, 2019). Their reasoning is clear, as it is hard to classify the impacts of climate change as ‘persecution’ under the Conventions’ five grounds (race, religion, nationality, membership of a particular social group, and political opinion - of which an individual must be oppressed under one of these conditions). Furthermore, they believe in the multi-causational nature of displacement that I mentioned before, that there are more factors at play than solely climate change. A counterargument to this comes from Matthew Lister,

who wrote in 2014 that *“the idea of the climate change refugee can be made to fit within the logic (though not the current legal language) of the UN Refugee convention”* (Lister, 2014).

A soft-law approach, one which does not bind states to follow its rules, but rather provide guidance on best practice. Norway and Switzerland led the development of the Nansen Initiative between 2012 and 2015, which sought to develop a Protection Agenda for addressing cross-border displacement caused by natural disasters. While its sole focus was not climate change, it did acknowledge the gap in protection frameworks and called for the integration of effective mitigation practices into the legal systems of individual states (The Nansen Initiative, 2015).

Jane McAdam, who we have referenced the work of frequently in this paper, noted that these measures are met with some hesitance. States were reluctant to formalise new obligations, and instead chose to maintain control over how such issues are framed and addressed. At the meeting of the UNHCR, only five states supported the initiative; Norway, Switzerland, Costa Rica, Germany, and Mexico.

Some argue that rather than amendment to existing frameworks, there should exist a distinct legal instrument that defines and protects ‘climate refugees’. One such organisation is the Environmental Justice Foundation (EJF), who are in favour of a completely new and binding multilateral agreement. They contend that existing refugee law is not adequate enough to address climate-related migration, as most affected people do not cross international borders or are not fleeing persecution in the legal sense. Jane McAdam outlines multiple key concerns, including that by defining ‘climate refugee’, we may be excluding some people from much-needed assistance by hardening the category and criteria for consideration (McAdam, 2012).

Conclusion

Ultimately while the negative effects of climate change continue to increase on a daily basis and we continue to see more and more individuals displaced and become climate refugees, the issue remains legally and politically unresolved. While existing definitions are important and provide a good framework for the creation and introduction of mitigation policy they are inconsistent, non-binding, and overly vague which means it is difficult to translate humanitarian needs into actionable protections. It is vital to remember that numbers are crafted by methodology, media narratives, and political interests, all of which have a grasp over public perception and policy response. Although there are almost constant talks, negotiations, and efforts to introduce new legal instruments, progress stagnates in the post-international conference period and picks up again twelve months later. Looking to the future, the challenges that lie ahead are not only what constitutes a ‘climate refugee’, but also to design responsive, inclusive, and enforceable mechanisms to protect them. We must do this before our ability to act is out paced by the problem itself.

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