



GENEVA
GRADUATE
INSTITUTE

TOWARDS A GLOBAL GOVERNANCE FRAMEWORK CLIMATE-DRIVEN MIGRATION



Prepared by
Anna Vreven Colabewala
Anaëlle Deneuve
Sandra Thachirickal Prathap
Shiyuan Zhao

Prepared for
Summit of the Future - September 2024
Final Applied Research Project Report

Table of Contents

ABBREVIATIONS	3
INTRODUCTION	4
LITERATURE REVIEW	5
CLIMATE-DRIVEN MIGRATION: THE DRIVING FACTORS	5
CLIMATE-DRIVEN MIGRATION: TRENDS AND TRAJECTORIES	6
EXISTING INTERNATIONAL GOVERNANCE FRAMEWORKS ON CLIMATE-DRIVEN MIGRATION	8
METHODOLOGY	12
PRIMARY SOURCES: EXPERT INTERVIEW	12
SECONDARY SOURCES: LITERATURE REVIEW AND ANALYSIS	12
INFORMATION COLLECTION	12
LIMITS OF THE METHODOLOGIES	13
RISKS AND MITIGATION	13
RESEARCH ANALYSIS	14
PART I: ADDRESSING CRITICAL SHORTCOMINGS IN CLIMATE MIGRATION GOVERNANCE	14
<i>Problem Statement and Identifying Gaps</i>	14
<i>International & National Policies</i>	14
<i>Funding Mechanisms</i>	15
<i>Capacity Building</i>	16
<i>A Call for Change</i>	17
PART II: POLICY RECOMMENDATIONS FOR A GLOBAL GOVERNANCE FRAMEWORK	18
<i>Recommendation 1: Policy</i>	18
<i>Recommendation 2: Funding</i>	20
<i>Recommendation 3: Capacity Building</i>	21
BIBLIOGRAPHY	23

Abbreviations

COP28	2023 United Nations Climate Change Conference
DRR	Disaster Risk Reduction
GCM	Global Compact for Migration
GCR	Global Compact on Refugees
ICT	Informational and Communications Technology
IDMC	International Displacement Monitoring Centre
IEP	Institute for Economics and Peace
IOM	International Organization for Migration
IPCC	Intergovernmental Panel on Climate Change
NGO	Non-Governmental Organisation
OAU	Organisation of African Unity
OHCHR	Office of the United Nations High Commissioner for Human Rights
R&D	Research and Development
TFD	Task Force on Displacement
UNEA	United Nations Environment Assembly
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNHCR	United Nations High Commissioner for Refugees
UN-Habitat	United Nations Human Settlements Programme
WASH	Water, Sanitation and Hygiene
WEF	World Economic Forum
WIM	Warsaw International Mechanism for Loss and Damage

Introduction

Climate change has become the most pressing issue of today's world. The goal to limit the global temperature rise under 1.5 degrees averagely to the pre-industrial levels as was adopted in 2015 in the legally binding treaty of the Paris Agreement, was not on the right track to be achieved. In such a context, the world cannot afford any further delay in creating and implementing not only climate solutions, but also finding solutions and taking actions towards issues that result from climate change, including climate-driven migration.

Climate-driven migration or climate migration is the movement of a person or groups of persons who, for sudden or gradual environmental reasons, leave their habitual place of residence, within a state or across an international border (IOM, 2019). People subjected to this issue are referred to as "climate migrants", and the term "climate refugees" is to be avoided according to the International Organization for Migration and United Nations High Commissioner for Refugees (UNHCR) since people are not always forced to migrate and do not always cross-national borders. Nevertheless, the term "climate refugees" is still widely applied in the discourse of climate migration due to the lack of consensus on the topic. Throughout this report, the phrases "climate-driven migration" and "climate migration" will be employed interchangeably.

Despite the ongoing climate crisis and the relentless increase in the number of displaced populations, climate-driven migration has only drawn little attention compared to its counterparts with immediate impacts to survival like flooding. To make up for the current insufficiency in addressing the migration crisis, it is the responsibility of all institutions to create and update climate adaptation strategies and implement them in response to the ongoing crisis. Therefore, this report will explore and examine the existing research on the driving factors, patterns and consequences of climate-driven migration, its trajectories until 2050 and to set foundations for the objective of the project: to generate an empirically-based trend analysis of how climate change is likely to drive population movements, and policy recommendations for how the global governance system could be adapted to meet these emerging challenges.

Recommendations to be presented at the Summit of the Future include policy, funding, and capacity building recommendations formulated through secondary literature research and interviews with experts in the field.

Literature Review

Climate-Driven Migration: The Driving Factors

Climate-driven migration is considered a multi-causal and multi-dimensional phenomenon (Black et al., 2011; Leal Filho, 2023; McAdam, 2012; Warner, 2010). Literature has tried to analyze the causations and relations between and among climate-driven migration and its driving factors, although there is no current consensus on how to categorize the driving factors. One of the most common ways to categorize the driving factors of climate migration is created by Black et al. (2011) and it was adopted by later research on this topic including two recent systematic and comprehensive studies created by Ghosh and Orchiston (2022) and Nabong et al. (2023). In this categorization approach, there are five major categories of components that drive migration due to climate change on the macro level, namely environmental, economic, social, demographic, and political drivers. Before diving into the specific factors under each category, it is to be noted that on one hand, it is difficult to separate migrations that are driven by climate change and other current trends of migration; on the other hand, among the factors that drive migration, it is also difficult to separate environmental, economic, social, demographic and political factors from each other, since they are often inter-connected and integrated with each other (Campbell, 2014). To explain this further, gradual climate change impacts are unpredictable, as they often create a domino effect. Indirect factors such as rising sea levels intensifying floods and hotter temperatures jeopardizing agricultural livelihoods, pose significant threats and can cause conflicts. Conflicts over water arising from desertification contribute to population movements. Sea-level rise, land degradation, coastal erosion, and extreme temperatures can render entire regions uninhabitable. While direct environmental favors like disasters tend to result in short-term displacement, indirect and recurring events can compel individuals to seek permanent relocation. The predominant trend in climate migration is internal rather than cross-border, characterized by temporary rather than permanent displacement in response to natural disasters (Huang, 2023). With that said, the following paragraphs attempts to classify the specific driving factors of climate migration into the above-mentioned categorization approach.

Environmental factors include those that have direct and indirect impacts on climate-driven migration. Direct environmental factors are usually associated with extreme weather events that take place within a brief period. This may include heavy precipitation, flood, cyclones, heat waves and wildfires, etc. Indirect environmental factors are those that take place gradually and with a longer time scale, for example, desertification, sea level rise, fresh water scarcity, land and water salinization, decrease in arable land and drop in crop productivity, energy shortage, changes in the biological system, as well as changes in (plant and animal) species range that may exert further influence on the ecosystem (Moore & Wesselbaum, 2023). In addition to the actual impacts of climate change, the possibility and exposure to climate hazards can also drive people to move.

The remaining four categories of factors are usually considered to have indirect impacts on climate migration. However, the literature also emphasized the integration and amplification

of these factors, especially social and economic ones, to the environmental hazards (Adger et al., 2015; Black et al., 2011; Seto, 2011). Economic factors include passive changes in the sources of income (employment), decrease in income, the active search for better livelihood and better job opportunities, as well as changes in physiological capability (Moore & Wesselbaum, 2023), etc. As for the social factors, language, religion, education, and social network in societies, etc. can be factors that have influences on people's decisions of migration. The demographic factors include changes in the population, population density, demographic composition, birth, and mortality rates due to the consequences of climate change. Meanwhile, there can be deterioration in physical and mental health and wellbeing among people due to climate hazards that drive people to move. Finally, in terms of the political drivers of migration due to climate change, the legal system, and policies (national, provincial, and local) can encourage or discourage people from moving. Climate change and its consequences also impact security and prevalence of crimes and violence. Literature demonstrates that in certain countries, for example when Syria undergoes droughts, the occasions of violence and armed conflict may take place and drive people to move; similar events also happened in Western Asia when there was political instability (Abel et al., 2019).

In addition to the five categories mentioned above, it is important to note that unknown events may also impact or exacerbate climate-driven migration. These events may include the threat of nuclear weapons, epidemic and pandemic diseases, etc.

To summarize, the main challenge for framing climate-driven migration is the multiplicity of factors that shape the mobility decision. The diversity of factors makes it challenging to analyze and predict climatic migratory movements. Some mobility is due to sudden-onset events that require urgent departure. In contrast, others are linked to slow-onset events that generate migration in anticipation of degrading living conditions (Hoffmann et al., 2021). It is, therefore, more difficult to determine whether the migration is climate-driven or simply due to the pursuit of a better living environment.

Climate-driven migration: trends and trajectories

Looking at the globe now, we can see clear indicators of what the future may hold: enormous climate threats and natural resource stress, ongoing refugee crisis, and reactions from governments ranging from open doors to watching while the most vulnerable perish. Water and food scarcity, as well as governments' failure to deliver these essential resources to their population, are not going away. The expanding and multifaceted push and pull factors of migration are also not going away. These challenges we can foresee. But with foresight comes a "responsibility to prepare", and to do so in a manner that is consistent with our values (Werrell & Femia, 2017).

Despite the complexity of finding the causations of climate migration and its driving factors as illustrated above, forecasts by climate scientists have already identified the main regions concerned by climate-driven migration and made predictions about the number of displacements. However, before going into the numbers predicted, it is to note that, despite the

best efforts of some of the international organizations and think tanks including those made by the World Bank (Clement et al., 2012) and International Displacement Monitoring Centre (IDMC, 2015; 2016), clear and credible estimates of possible numbers are not available (Gemenne, 2011).

According to IOM (n.d.), environmental migrants will number between 25 million and 1 billion by 2050. Lower estimates are often based on more restrictive definitions of environmental migrants. Numbers are more likely to increase than decrease. The Institute for Economics and Peace's (IEP, 2020) Ecological Threat Register projects predicted that over one billion people are at risk of displacement by 2050. The World Bank's Groundswell Report (Clement et al., 2012) projects that climate change could lead to the displacement of a staggering 216 million people by 2050, encompassing a wide geographical scope, with 86 million from Sub-Saharan Africa, 40 million from South Asia, 17 million from Latin America, 49 million from East Asia and the Pacific, 19 million from North Africa, and another 5 million from Eastern Europe and Central Asia. The World Economic Forum's report (Ida, 2021) also investigates the modeled future migration patterns. These compare present trends against global warming scenarios outlined by the Intergovernmental Panel on Climate Change (IPCC). In scenarios where concentrations of greenhouse gases fail to decrease and temperatures rise, asylum applications are projected to increase by 188% by the end of the century.

The scientific literature shows that most displacements are taking place within countries that are affected by natural disasters linked to climate change. Despite this established fact, there are observations that media discourse in countries in the northern sphere discuss the issue by emphasizing the likelihood of international climate migration. This is a biased perception of migratory phenomena that serves right-wing and far-right politics in many European countries, encouraging public opinion to see migration as a threat. As many developing countries lack the financial and technological resources to address the climate-induced issues subjected to their living conditions, the support of the global north is essential to help them plan for climate adaptation and migrants' assimilation in receiving countries when migrants are forced to leave their home with no possibility of return.

Moreover, climate risks are distributed unevenly among countries, and thus countries take different measures and put climate-relevant issues in different levels of priorities, especially that the economic and political stability of the countries affected by climate migration varies widely. Some governments have already taken the lead, as shown by the recent climate asylum agreement signed between Tuvalu and Australia and the relocation plan for Jakarta in Indonesia. However, in other cases, governments have more pressing issues on their agenda than anticipating the consequences of global warming, and therefore, no adaptation strategies are put in place yet.

Overall, there is a lack of precise prediction data on the number of people displaced by climate change. The absence of a clear international definition of climate-driven migration, and the fact that most displacements are internal, complicates the task of mapping the situation. Greater

collaborations among countries and international bodies are essential to improve knowledge about climate-driven migration.

Existing international governance frameworks on climate-driven migration

An effective response requires specific policies and international cooperation to help, protect and provide durable solutions for those displaced by climate change, manage climate risks for those who remain and support opportunities for voluntary migrants to adapt to climate change (Werrell & Femia, 2017). “To be effective,” says Stephen Castles (2002), “migration policy must be fair and perceived as fair by all groups involved.” This is a major challenge in the context of climate change. Those who flee because of the loss of their livelihoods are usually citizens of states that have contributed only minimally to climate change. The states that have caused the most carbon dioxide emissions, which are often far away from the migrants' countries of origin, have shown less willingness to accept migrants. The neighboring states to which the migrants migrate may be ill-equipped to receive them, and the migrants risk becoming political pawns.

Although there are several international agreements, such as the New York Declaration and the Global Compacts, the Global Compact on Migration, the Global Compact on Refugees (Immigration, Refugees and Citizenship Canada, 2022), the United Nations Framework Convention on Climate Change (UNFCCC) processes, the Warsaw Mechanism, the Guiding Principles on Internal Displacement (United Nations Human Rights Council, 2014), the Kampala Convention, the 1951 Convention, the Nansen Initiative, the Protection Agenda and PDD, the Sendai Framework, the 1969 OAU Refugee Convention and the Cartagena Declaration, are not sufficient to develop a binding, practical and specific global governance framework to address the issue of climate-induced migration.

The most important organization in the United Nations system for the protection of refugees is the UNHCR. Its focus is on (political) refugees, who are protected by the Geneva Convention and the 1967 Protocol, and therefore not on environmental or climate refugees. According to the Convention, a refugee is “any person who owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion, is outside the country of his nationality and is unable or, owing to such fear, is unwilling to avail himself of the protection of that country, or who, not having a nationality and being outside the country of his former habitual residence as a result of such events, is unable or, owing to such fear, is unwilling to return to it” (Biermann & Boas, 2012).

Under current conditions, most climate refugees cannot be considered refugees, but internally displaced persons, as defined in the Office of the High Commissioner for Human Rights' Guiding Principles on Internal Displacement (OHCHR, 1998: Introduction, Article 2; Keane, 2004) as “persons or groups of persons who have been forced or obliged to flee or to leave their homes or places of habitual residence, in particular as a result of or in order to avoid the effects of armed conflict, situations of generalized violence, human rights violations or natural or man-made disasters, and who have not crossed an internationally recognized border”. “However,

the concept of ‘environmentally induced internally displaced persons’ serves only as a descriptive term, not as a status imposing obligations on states” (Keane, 2004).

Recently, the United Nations General Assembly adopted the New York Declaration for Refugees and Migrants (2016), which in its first paragraph recognizes the importance of climate change, environmental problems and natural disasters as causes of migration and flight, but then does not provide any further details (Werrell & Femia, 2017). This lack of clarity highlights the difficulty of dealing with the huge and growing number of climate-induced migrants and refugees. Despite the attention they receive in political circles and in the media, climate migrants remain a “blind spot” in international politics (Werrell & Femia, 2017). The Global Compact for Migration (GCM) is crucial to efforts to integrate climate-induced migration into international migration policy. However, it is non-binding, offers no explicit additional protections for migrant groups and is very vague. The Global Compact on Refugees (GCR) considers the interplay between climate and other elements.

The Warsaw International Mechanism for Loss and Damage (WIM) Task Force on Displacement (TFD) is a knowledge actor, but its operationalization depends on capacity building and funding. The Guiding Principles on Internal Displacement are not tailored to populations affected by climate change but provide important safeguards, including protection against arbitrary displacement. However, they are not binding and are often not fully implemented. The Kampala Convention, which governs the treatment of internally displaced persons in Africa, is a unique legally binding agreement that is groundbreaking in its inclusion of climate-induced displacement. It obliges states to combat the causes of displacement and to support the people who have been displaced. However, implementation has been slow. Due to its limited relevance to refugees, the 1951 Convention does not readily offer protection to climate-affected communities. According to the UNHCR and the IOM, the term “refugee” is also not the most appropriate to describe the situation of climate-induced migration, as it “fails to recognize a number of key aspects that define population movements in the context of climate change” (IOM, 2020), such as the fact that climate-induced migration is mainly internal migration, resulting in greater vulnerability for the internally displaced than for refugees.

The Nansen Initiative and its successors facilitate the exchange of best practices and are crucial for the development of appropriate and adaptable strategies. The Sendai Framework looks at migration from a disaster risk reduction perspective, presenting migration as both a source and a means of mitigating disaster risk. The 1969 Organisation of African Unity Convention creates a broader basis for the use of international protection. Its provision on “events seriously disturbing public order” can be applied to climatic shocks and allows for cross-border transit and residence. The Cartagena Declaration, while non-binding, provides more comprehensive protection requirements than the 1951 Convention. The Cancun Adaptation Framework recognizes the role of migration in climate change adaptation, including planned relocation and adaptive migration (Scheffran et al., 2012).

Building a legal framework for climate migrants will require changes to the current institutional structure for political refugees created by the Geneva Convention and related agreements, as

well as by state legislation. The distinction between the legal status of political refugees protected by the Geneva Convention and the legal status of climate refugees protected by a UNFCCC Protocol on the Recognition, Protection and Resettlement of Climate Refugees requires some terminological changes within the UNHCR system (Biermann & Boas, 2012). However, despite this lack of recognition and clear definition at the international level, many actors refuse to amend the Convention for fear of losing the rights they have already acquired. Even if the creation of a legal framework for climate refugees is possible through a new pact, another relevant problem would be that of “funding”. The question of the most suitable mechanisms for the specific financing of the problem of climate refugees would remain open.

The most feasible approach to address this global problem is to develop a rights and responsibility-based multilateral approach to climate refugees, i.e. a multilateral framework for global governance. Werrell and Fermia (2017) raised the responsibility of inter-governmental mechanisms, for example, G20, to prepare the world for a larger number of people facing protracted or permanent displacement due to environmental change, as there is no international mechanism or institution that could take on this role.

According to a mapping exercise conducted by the IOM as part of the TFD’s original work program, 53% of the 66 countries and territories surveyed referred to climate change and environmental concerns in their national migration and displacement frameworks. On the other hand, the mapping found that 81% of the thirty-seven countries and territories that have submitted national policies, plans or strategies on climate adaptation mentioned human mobility. Some governments have even developed climate and migration policies. The IOM has begun to work closely with the relevant authorities in some countries to assess whether national policy frameworks are consistent with both the TFD guidelines and the climate-related objectives of the GCM. However, a fundamental limitation at the national level is the lack of linkage between climate-related ministries and migration-related agencies.

The Executive Committee of the WIM (WIM ExCom) has clearly played a key role in bringing climate experts and policy makers together with migration experts. The WIM ExCom has brought together experts from numerous policy areas (migration management, refugees and displacement, sustainable development, human rights, development, labor, peace and security, disaster preparedness and management, etc.) as well as representatives from various governmental and non-governmental organizations with an interest in migration issues. This strategy has several advantages, the most important of which are that it promotes synergies, maximizes existing financial resources and reduces duplication.

Given the current sensitivity to creating a global protection instrument, there is widespread agreement at the regional level that migration policy discussions are probably the most appropriate starting point for developing frameworks to help and protect people who migrate in the context of climate change (Scheffran et al., 2012). The complexity and urgency of climate-induced migration requires a comprehensive global governance structure that recognizes the uniqueness of this phenomenon. Such a framework should include preventive measures, protection of rights and cooperative initiatives to mitigate the negative impacts of

climate change and ensure the safety and well-being of affected populations. Only through focused, coordinated efforts can the world adequately address the difficulties of climate-induced migration while protecting the dignity and rights of displaced people.

According to the G20 Policy Brief on Climate and Displacement by the Center for Climate and Security, one of the main shortcomings of the existing international framework for displaced persons, migrants and refugees is the notion that migrants can and will return to their home countries after the end of hostilities or the recovery phase following a natural disaster. The rights and obligations of migrants and refugees, countries of origin, transit and host countries are all based on this principle. There are no so-called “destination countries” (Werrell & Femia, 2017). The premise is false in the case of climate-induced involuntary migration, when habitats have deteriorated and become uninhabitable: The migrants will never be able to return to where they came from. They cannot be described as refugees in the conventional sense. Unfamiliar terms such as “survivor migrants” and new legal ideas and norms may be needed in a future international governance system for displaced persons, migration, and refugees (Werrell & Femia, 2017).

Since the places where major climate change impacts, such as sea level rise, are expected to cause suffering and displacement are largely predictable, we can plan and prepare (Biermann & Boas, 2012). The development of a climate refugee protocol and associated institutional framework must be delayed until 2050, when it may be too late for an orderly and structured response.

Methodology

The methodology adopted for the project was descriptive and analytical, based on data collected from primary and secondary sources. Primary sources included expert interviews, while secondary sources consisted of literature reviews and analyses of existing literature.

The methodology of the project was designed to answer the following research questions:

1. What did the current literature tell us about the trends of climate-driven migration until 2050?
2. What were the existing global governance frameworks on (climate-driven) migration?
3. What were the insufficiencies in the current frameworks, and what were the suggestions?

Literature reviews and subsequent analyses were used primarily for research questions 1 and 2, while interviews were conducted to answer research question 3.

Primary Sources: Expert Interviews Interviews were chosen for the last research question to fill the gaps in the findings from the literature review. As the existing frameworks to address climate-driven migration were considered inadequate, there was a need to collect ideas from academics, policymakers, practitioners, and other experts in the sector. This included interviews with experts in climate adaptation, migration, and global governance, aiming to draw insights for policy recommendations to the current global, multilateral, and national/provincial/local systems regarding climate-driven migration.

Secondary Sources: Literature Review and Analysis Literature reviews were chosen for the first two research questions to collect, compile, select, and analyze existing literature, demonstrating what climate-driven migration was and how its trends and trajectories might look until 2050. At this stage, no new information was generated. The scale of the literature included:

- Types of literature: existing academic journal articles, research reports and publications, policy briefs, compacts, declarations, national and international data, and legislation.
- Topics explored: environment, climate change, and migration.
- Organizations: UN University, IOM, UNHCR, UNEP, IPCC, World Bank, etc.

Information Collection

Information for literature reviews and analyses was collected from the internet, including resources on academic search engines like JSTOR and Google Scholar, as well as official websites of international organizations, multilateral organizations, and governments. This started with keyword searches and expanded to relevant literature from the primary search results, including references and suggested readings. The research team then explored and identified common and differing perceptions among institutions on climate-driven migrations,

concluding with definitions and an understanding of the issue that would be referred to in the rest of the project.

Interviews began with interviewee invitations after the research team identified a list of experts from the literature and received recommendations from the partner organization and faculty lead. The research team created lists of questions tailored to experts with different expertise, while remaining centered on the research question. The list and a form of consent to quote from the interviews were sent to the interviewees in advance. Interviews were conducted online or in person, depending on the interviewees' preferences. Each interview lasted for approximately an hour, with flexibility in length.

Limits of the Methodologies

The outcomes of this project for research question 3 depended on the knowledge and thoughts generated by the interviews. If the research team was unable to draw conclusive recommendations for research question 3 from the interviewees, other research methods, such as roundtables and workshops for knowledge exchange and idea generation, might be considered. The research team remained open to these options, although they were not within the current project scope.

Risks and Mitigation

Interviewees' availability could significantly affect the project timeline. Therefore, the project team managed to create a realistic timeline, actively managed the project schedule, anticipated potential delays, planned for contingencies, and communicated in advance within the group, with the interviewees, as well as with the partner organization and faculty lead.

Research Analysis

Part I: Addressing Critical Shortcomings in Climate Migration Governance

Problem Statement and Identifying Gaps

While the escalating urgency of climate-driven migration is undeniable, current efforts to address this crisis remain fragmented and inadequate. As outlined in existing research, the complexity and multi-causal nature of climate migration, influenced by environmental, economic, social, demographic, and political factors, make it a challenge to quantify and predict (Black et al., 2011). This complexity is mirrored in the inadequacy of existing international and national frameworks, funding mechanisms, and capacity-building programs, which are struggling to keep pace with the escalating scale and complexity of the issue. These shortcomings leave millions of people vulnerable to displacement, exploitation, and suffering, with dire consequences for both individuals and societies.

To effectively address climate-driven migration and protect the rights and well-being of those affected, it is imperative to critically examine the existing gaps and develop targeted solutions. Through the research, three areas of focus were identified, namely international and national frameworks, funding mechanisms, and capacity-building.

International & National Policies

There exists a significant challenge in applying existing legal frameworks to trigger obligations for states and intergovernmental organizations to assist these displaced populations, as shown in literature and derived from interviews. The challenge stems from the lack of a universally accepted and adopted definition for climate-displaced persons and consequently lacking a unified and comprehensive legal framework to protect and assist those displaced by the adverse effects of climate change. These populations are not recognized as “climate migrant” or “climate refugee” and these terms are not enshrined in international law, which created ambiguity in determining the legal status and protection afforded to these populations. The former Special Rapporteur on climate change (May 2022 to December 2023), Ian Fry, asserts that terms to refer to these people are to provide clarity rather than a solid definition. The risk with labeling is that it cannot adequately describe the hardships faced by displaced individuals or their circumstances (Fry, 2024). An example that falls into this category is the people who are projected to be displaced when sea levels continue to rise and force them to leave their country and become stateless, for instance people in Tuvalu and in Maldives. These populations will not be categorized as refugees until their stateless status is achieved. And until that point, these populations will not be protected under international laws, for example, the Refugee Convention. As a result of the lack of labels and agreement upon definition by major institutions, governments, national and international actors, oftentimes discussions center around developing a definition for people displaced due to climate change. The risk with this is losing sight of the people behind the definition and not working to find solutions for them (M.Marques, interview, 26 Mar. 2024).

While existing international law, such as the 1951 Refugee Convention and the 1998 Guiding Principles on Internal Displacement, offer some protections, they do not explicitly address climate-induced displacement (Biermann & Boas, 2012) and the international community does not explicitly recognize climate change as a valid basis for asylum or offer specific guidelines to address the challenge. Attempts to address this gap, such as the Global Compact for Migration and the Task Force on Displacement under the Warsaw International Mechanism, lack the binding force and specificity needed to effectively protect climate migrants. The lack of clear legal categorization creates a protection gap. Climate-displaced persons are left in a precarious situation, often falling outside the scope of existing refugee protection frameworks. This ambiguity hinders efforts to establish clear obligations for states and intergovernmental organizations to provide aid, resettlement opportunities, and ensure the human rights of this vulnerable population.

Furthermore, many national governments lack coherent policies to address climate-induced migration, both within their borders and across international boundaries. This absence of integrated planning hampers efforts to anticipate and manage the growing number of people forced to leave their homes due to rising sea levels, extreme weather events, and other climate-related hazards. It also creates significant barriers for climate migrants seeking to relocate to safer areas or adapt to changing environmental conditions. At the same time, compared to discussions around policies *per se*, less efforts are emphasized to listen to the experiences of the displaced people, resulting in the lack of understanding of the real and diverse needs of these populations and the lack of attention to incorporate their voice in policies and beyond.

Without clear legal and policy frameworks, climate-displaced persons are left vulnerable to exploitation, discrimination, and human rights abuses. The lack of coordinated action also hinders effective cooperation between countries, leaving vulnerable populations without adequate support and protection. To ensure the safety, dignity, and resilience of climate migrants, it is essential to develop robust legal and policy frameworks, wherever necessary and possible, that recognize the specific needs and challenges they face, providing clear pathways for protection, resettlement, and integration.

According to the World Bank *Groundswell* Report, it estimates that 216 million people could be internally displaced by 2050. The African Climate Mobility Initiatives projects that in Africa alone, 113 million people could become displaced by 2050. These numbers are more staggering as most of these displaced people will be relocating from developing countries to others. The infrastructure and social systems of developing countries are not adequately suited to the influx of climate migrants now, and in the future could significantly impact their GDP. In Bangladesh, they predict by 2050 1/3 of the GDP will be lost due to climate migration (A. Forhad, personal communication, April 8, 2024). Due to a lack of a stable international, regional, and local definition of climate migrants, governments do not have a legal obligation to provide relief programs for internally or cross-border climate migrants.

Funding Mechanisms

Despite the escalating crisis of climate-driven migration, the financial resources dedicated to addressing this issue remain significantly inadequate. Existing climate finance mechanisms, such as the Green Climate Fund and the Adaptation Fund, often prioritize mitigation efforts to climate change, such as reducing greenhouse gas emissions, over adaptation measures that help communities prepare for and cope with the unavoidable consequences of climate change in various dimensions. This limits funding for projects specifically addressing the displacement and relocation needs of climate migrants (CPI, 2023). The lack of targeted funding is amplified by the complex procedures and limited technical capacity in many vulnerable countries, making it difficult to access even the limited resources available.

Moreover, funding for the relocation and resettlement of climate-displaced populations is often fragmented, short-term, and insufficient to address the long-term needs of those forced to leave their homes. Financial support is more often dedicated to humanitarian aid in emergencies, neglecting the critical need for sustainable solutions that enable communities to rebuild their lives and livelihoods in new locations. This is generating fatigue in funders who feel they keep funding disasters, leaving an opportunity in fundraising to invest in longer term projects (S.O'Connell, personal communication, April 16, 2024).

Access to existing climate finance is also hampered by complex bureaucratic procedures, limited technical capacity in recipient countries, and a lack of targeted funding for migration-specific projects. This leaves many communities struggling to adapt to climate change and forced to resort to desperate measures, such as irregular migration, which further exacerbates the crisis. Developing innovative and accessible funding mechanisms that address the specific needs of climate-displaced populations is crucial to ensure their safety, dignity, and resilience.

Capacity Building

While some capacity-building initiatives like the Migrants in Countries in Crisis (MICIC) initiative exist, they often lack the scope and funding to comprehensively address the unique challenges of climate-induced migration (McAuliffe & Triandafyllidou, 2021). Many governments and communities lack the necessary knowledge, skills, and resources to adequately prepare for and respond to climate-induced migration. This lack of capacity is often due to limited financial resources, lack of access to technical expertise, and inadequate data collection and analysis on migration patterns and the needs of the migrants.

Without proper planning and coordination, climate-driven migration can overwhelm local infrastructure and services, leading to increased social tensions, conflict, and instability. Moreover, the lack of capacity among local actors can hinder efforts to implement effective adaptation measures, leaving communities vulnerable to the worst impacts of climate change. Currently, disaster risk reduction (DRR) aims to forecast risks to people's environments and create projects that not only foster the resilience of vulnerable communities, but to educate people on rebuilding after there is a disaster. IOM currently invests in DRR projects such as giving grants to Bangladeshi fishermen to fortify shelter against flooding. This project included

training programs to fix their houses and training on new livelihoods to equip people with transferable skills in the case of disaster. A major problem with capacity building programs like this is donors do not want to invest in these projects as there is no immediate measurable impact. The focus of funding is on emergency humanitarian relief, rather than reducing emergency migration (M. Marques, personal communication, March 26, 2024).

Capacity building efforts must focus on strengthening early warning systems, improving data collection and analysis on migration trends, and providing training and resources to local officials, community leaders, and humanitarian organizations. By empowering local actors with the necessary knowledge and tools, they can better anticipate and respond to climate-induced displacement, minimizing its negative impacts and promoting sustainable solutions.

Building capacity also involves fostering collaboration and knowledge sharing between different stakeholders, including governments, international organizations, civil society groups, the private sector and most importantly the migrants. By working together, these actors can develop comprehensive strategies for managing climate-driven migration, ensuring that the rights and needs of displaced populations are protected in the way this population requires and that they can rebuild their lives in safety and dignity.

A Call for Change

By focusing on these critical areas, this report aims to provide policymakers, donors, and practitioners with actionable recommendations to strengthen international and national frameworks, establish funding mechanisms, and bolster capacity building at all levels.

Before going into the recommendations, it is to note that from the interviews, the research team has noticed that in addressing climate-driven migration, different players, who have different mandates and responsibilities, have different approaches to address this issue and their plans and actions can sometimes be contradictory. This is particularly evident in the fact that local-level actors are taking positive steps to facilitate migration as a strategy of adaptation, while some international organizations can be more “conservative” in this matter and try to keep migration as local and contained as possible. The reasons behind their contrasting approaches are unclear, however, the research team hypothesizes that the requirements of the donors of the international organizations may have influences on the design of their projects.

The window of opportunity to effectively address climate-driven migration is rapidly closing if not already happening. The consequences of inaction can be disastrous, whether in a 5-year short time scale or if we look further into the future. The human suffering caused by this crisis is heartbreaking, and the economic and social costs are making our societies unsustainable. Urgent and decisive changes are essential to revise legal frameworks, create climate-aware financial mechanisms, and empower communities to adapt and thrive in the face of climate change. This report offers recommendations for changes, but its efficiency and effectiveness depend upon the commitment and collaboration of all stakeholders.

Part II: Policy Recommendations for a Global Governance Framework

Climate change is already causing widespread displacement and migration, with millions of people being forced to leave their homes due to rising sea levels, droughts, floods, and other climate-related disasters. This trend is expected to accelerate in the coming decades, potentially leading to mass migration on an unprecedented scale. Without proper planning and coordination, climate-driven migration could exacerbate existing conflicts, strain resources, and undermine human rights and security.

The following global governance framework and policy recommendations for addressing climate-driven migration are informed by a comprehensive review of existing literature and consultations with leading experts in the field. They are specifically tailored for the attendees of the upcoming Summit of the Future, recognizing the diverse array of national governments, international organizations, civil society groups, private sector entities, and other key stakeholders gathered at this critical forum.

Interviews with several institutions, including IOM, UNHCR, UNDP, the Permanent Mission of Bangladesh and university professors, enabled us to better identify the different framing each of these actors has to climate migration and the type of appropriate response they recommend implementing.

Recommendation 1: Policy

Key Areas: Big donor governments and receiver countries, National, Regional and Local Governments, Multilateral and International Organizations

These recommendations are aimed at addressing pivotal issues that affect the performance of national and international actors, such as the lack of clear categorization leading to protection gaps, and the absence of integrated planning and resettlement strategies for migrants. We aim to examine these issues through a rights-based and adaptation-based approach that also considers the need to incorporate a gender perspective into climate response strategies.

National Actors:

1. **National and Regional Adaptation Plans:** To develop and update national strategies and policies integrating measures for prevention, protection, and sustainable solutions for climate-displaced people.
2. **Disaster Reduction and Risk Management:** To strengthen disaster risk reduction and climate change adaptation efforts to minimize displacement. Invest data-informed risk management in early warning systems, climate-resilient infrastructure, and community resilience programs. And ensure that these investments and practices are implemented in a human-rights-oriented manner.
3. **Migrant Consultation:** To enhance data collection on climate migration patterns to inform evidence-based policymaking and ensure rights of climate migrants are protected, including access to services, employment, and legal pathways.

4. **Cross-Border Migration:** To facilitate cross-border climate migration through bilateral agreements like Australia-Tuvalu's bilateral pact that could include establishing legal migration pathways, coupling relocation with adaptation support, ensuring transparent community consultations, and integrating national security considerations into migration governance frameworks (Francis, 2024).
5. **Resettlement and Livelihood Support:** To develop proactive resettlement programs for communities at high risk of climate impacts, ensure smooth transitions and attempt to reduce potential conflicts over resources and encourage local support systems and resettlement programs for climate-affected communities.

International Actors:

1. **Contested Definition for Climate-Displaced People:** To adopt a common and encompassing definition to prevent protection gaps. Integrate climate migration into existing frameworks like the Paris Agreement and Global Compact for Migration for greater acknowledgement and improved response.
2. **Migration as Adaptation Strategy:** To integrate migration into climate adaptation strategies through legal pathways, circular and temporary migration options, and by sharing best practices and uphold rights-based, equitable approaches when facilitating migration as an adaptation measure. (National Strategy on Internal Displacement, 2021). IOM tends to use this concept while the former Special Rapporteur on Climate Change views that identifying climate driven migration as an adaptation plan underplays the fact that people are forced from their land. They contend it is not adapting to climate change but rather escaping its effects (Fry, 2023).
3. **Categorization Approaches:** To overcome definitional challenges, international organizations should adopt Bangladesh's categorization approach from its National Strategy on Internal Displacement Management. It divides displaced populations into three groups: temporarily displaced, in-between temporary and permanent, and permanently displaced, enabling targeted assistance based on their specific circumstances.
4. **Cross-Border Migration:** To encourage wealthier nations and donor countries to facilitate cross-border migration for populations displaced by climate change and environmental factors. They can promote bilateral and regional agreements that establish legal pathways for cross-border relocation.
5. **Strengthen UN Institutions:** To empower UNEA and UNEP's role as an effective global environmental agency to track impacts, measure commitments, guide investments, and spearhead a transformative multilateral agenda aligning with the 2030 Sustainable Development Goals.
6. **Expansion of International Conventions:** To update existing conventions such as the 1951 Refugee Convention to include climate-induced displacement.
7. **Creation of New Legal Instruments:** To develop new treaties in tandem to adapting current ones or accommodate optional protocols specifically addressing climate migrants, ensuring protection and rights under international law (A. Forhad, personal communication, April 8, 2024)

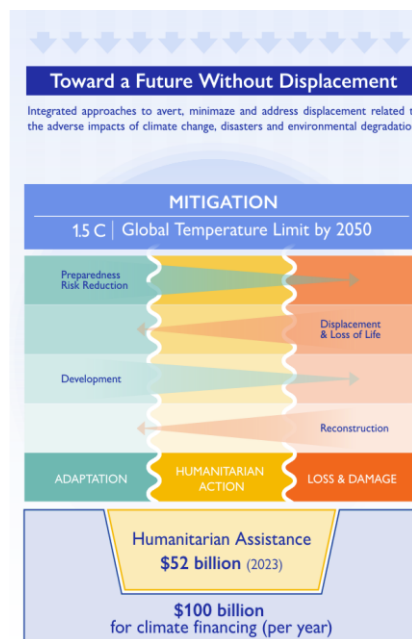
8. Foster Global Dialogue: To utilize global forums including but not limited to UNFCCC and G20 to foster dialogue and commitments.

Recommendation 2: Funding

Key Areas: Climate Financing, International Financial System, Impact Investing, Venture Philanthropy, Sponsoring Aid

Through research and interviews, we have identified funding as a major point for improvement in effectively meeting climate migrants' needs. At present, funding is insufficient and misdirected. There are various loss and damage funds to tackle climate disasters, but little of this money is directed towards migration. Additionally, the countries of the Global North, while hostile to the arrival of migrants on their territories, do not seem to be willing to finance sufficient adaptation programs to enable the populations concerned to stay on their territories by adapting infrastructures and lifestyles. Therefore, the economic policies do not seem to be aligned with the desired outcome, and the donor's fatigue, disappointed by the lack of rapid return on their investment, leads many to pull their money away from the climate-migration causes.

1. A Dedicated Financial Mechanism: To establish a dedicated global fund to support climate change adaptation, disaster risk reduction, and sustainable solutions for climate-driven migration. Currently countries are lacking fundings for implementing adaptation policies, which are still the best way to prevent forced displacement due to climate change. According to IOM, a high budget is dedicated to loss and damage, without getting to the roots of the problem, whereas adaptation measures make it possible to act upstream of climatic phenomena to reduce migrations.



(M. Marques with IOM, email communication, 2024)

2. **Partnerships:** To build trust among the international finance sphere and developing countries and prioritize climate finance for developing countries and vulnerable regions, including through the replenishment of existing funds. Recent evolution: At COP28 in Dubai in November 2023, wealthy countries pledged a combined total of over USD 700 million into the “Loss and Damage Fund,” which aims to help developing countries compensate for loss and damage from natural disasters caused by climate change. The Loss and Damage Fund provides an opportunity for organizations, countries, and communities to apply for money to address human mobility needs. The main goal of the fund is to compensate vulnerable nations for the impact of climate change, including infrastructure development programs. Currently, discussions are still underway to determine the management structure of the fund, but one vivid critic concerns the World Bank’s role as interim trustee. Indeed, developing countries are worried about future development and interest on loans that will be charged. Moreover, is it essential to leverage public-private partnerships to mobilize additional resources for addressing climate-driven migration. Conducting research about how much of an economic asset migrants represent- for example by calculating their input to GDP would be a great incentive measure to involve more private sectors in supporting and welcoming climate-migrants. They can also act through philanthropy by supplying national and international funds, and participate in the creation of new migration routes by opening training partnerships and job position.
3. **Communication:** To share knowledge and expertise about fundings requests to prioritize access to financial resources for vulnerable countries. Support countries in developing and implementing their climate change policies budget-wise (including National Adaptation Plans and Nationally Determined Contributions) by holding discussions that include both financial experts and migrants.
4. **Lobbying:** To advocate toward donors to reduce their expectations concerning the timeliness of measurable actions following their funding.

Recommendation 3: Capacity Building

Key Areas: Urbanization policies, R&D in Hazard Resistant Agriculture practices, Forecast and Adaptive Technology, Advocacy and Operational NGOS, UN system and major agencies: UNHCR, IOM, UN-Habitat, UNEP.

Promoting inclusive participation of affected communities, including climate migrants, in policy/program development and implementation is essential to address climate-driven migration. Engaging communities through dialogue, planning processes, and awareness campaigns as well as providing livelihood support in host areas to build understanding and reduce resource conflicts are actionable fields on local levels.

1. **Research and Assessment:** To invest in research and data collection is recommended to better understand the drivers, patterns, and impacts of climate-driven migration, and to inform evidence-based policymaking. Conduct regular assessments of policy and

program effectiveness, use feedback for adjustments, and establish accountability mechanisms to ensure adherence to standards and commitments.

2. **Community Inclusion and Participation:** To promote inclusive participation of affected communities, including climate migrants, in policy and program development and implementation. Engage communities through dialogue, planning processes, and awareness campaigns. Provide livelihood support in host areas to build understanding and reduce resource conflicts.
3. **Climate-smart Technology and Knowledge Transfer:** Facilitating technology transfer is recommended to support climate adaptation and resilience efforts (A. Forhad, personal communication, April 8, 2024). The adoption of climate-smart technologies, eco-engineering, and nature-based infrastructure solutions, such as conservation agriculture, agroforestry, irrigation and water management, and green product manufacturing.
4. **Adaptation Strategies and Livelihood Support:** Promoting adaptation strategies such as saline-resistant crops, fast-growing trees for stabilization, reskilling and reemployment of displaced persons, improved forecasting and risk mapping, and safe and regular migration pathways. Developing proactive resettlement programs for high-risk communities, ensuring smooth transitions, destigmatising migrant and providing support for sustainable livelihoods
5. **Climate-Resilient Infrastructure and Services:** Investing in climate-resilient infrastructure, public health, urban resilience, afforestation, green belt development, climate disaster management, ICT services, and water management and WASH services, is recommended.

In addition to the above list, existing regional agreements can be used to increase the capacity of the international community to respond to climate change. According to OHCHR's former Special Rapporteur on Climate Change, there are numerous existing regional agreements that can be adapted to include climate migrants. This is present across the world such as :

1. **East Africa:** the Protocol on Free Movement of Persons in the Intergovernmental Authority on Development (IGAD) Region. This was created to address issues of drought and desertification. As of May 2024, 5 IGAD countries have signed to this: Sudan, South Sudan, Somalia, Ethiopia, and Uganda (Tusiime, 2024) .
2. **Central America Four Free Mobility Agreement:** this allows for the free movement of migrants between Guatemala, Nicaragua, El Salvador, and Honduras. It also allows migrants to renew visas and passports easily and take into account post-disaster situations in the country. These regional agreements show countries' approach to climate migration, and provide baselines for making climate migration more regular and legal (SICA, 2024).

These inter-country and regional agreements can be modified and applied more broadly as the international community strategizes how to better share the responsibility of taking climate migrants. Adapting the interpretation of existing agreements and laws would allow climate migrants to be included in programming and responsibility-sharing, like in the case of the

Central America agreement. Not only does this allow for free movement and easily renewable visas, when determining if a person can renew their visa, these countries take into account the post-disaster situation of the country of origin. Leveraging existing regional agreements present in countries vulnerable to climate change could provide an important roadmap to further developing the role of the international community.

In addition to regional agreements, existing national plans can be used as a baseline to building capacity globally. According to an interview with Mr. Fordhad, from the Permanent Mission of Bangladesh, the National Adaptation Plan of 2022 has been put in action to mitigate the risks of climate change from 2023-2050 by developing climate resilient cities, training people in vulnerable areas in new livelihoods, and creating climate resilient agriculture to prevent loss of livelihoods. Prior to this adaptation plan, Bangladesh had created policies and regulatory frameworks to promote sustainable development. The lessons-learned of these models were leveraged when identifying opportunities for further adaptation (Ministry of Environment, Forest and Climate Change, Government of the People's Republic of Bangladesh, 2022). To further build the capacity of vulnerable countries like Bangladesh and modify this on a global scale, analyzing previous plans and their results is essential.

Limitations of the Recommendations

The above recommendations are drawn from interviews and research conducted. Meanwhile, the research team has noticed the limitations of the recommendations in terms of the following aspects:

1. Limited feasibility to be achieved in short-term time scale: This limitation particularly applies to the recommendations relevant to international policies which requires negotiations among states to adopt whether a definition for the climate-vulnerable population or the mechanisms of protection. Due to ongoing discussions between countries and international organizations concerning responsibility sharing, definitions, and other points of contention, the short term feasibility is severely limited by the differing opinions of stakeholders.
2. Contrasting opinions of national, international, and non-governmental Actors: Through the interviews the team conducted, it was revealed the severely divergent opinions of various stakeholders. In order to get a clear understanding of the issue from different angles, the team reached out to a diverse array of interviewees to understand these conflicting opinions. There are nevertheless many stakeholder voices who were not heard during this process, so further discussion among actors are needed to move forward with creating an international global governance.
3. Influence of donors to international organizations: As earlier mentioned in the problem statement, the research team hypothesizes that international organizations, although they have their own specific mandates and responsibilities, can be influenced by the political and economic agendas of the big donor states. This can lead to the contradictory plannings, actions, and/or funding strategies among different actors in

this field and result in contradictory consequences, for example, capacity building and fundings to facilitate or to contain the movements of the people. Essentially, in addressing the issue of climate-driven migration, the ultimate goal can vary among actors, making it more complicated to make projections of the number of people who will be displaced.

Conclusion

Addressing climate-driven migration necessitates a comprehensive and multi-faceted approach, as underscored by this research analysis. The fragmented nature of current efforts and the absence of a universally accepted legal framework leave millions vulnerable to displacement and its associated hardships. To mitigate these challenges, it is critical to develop robust international and national policies that explicitly address climate-induced displacement. Clear legal categorizations and protection mechanisms must be established to ensure that climate migrants are not left in a legal void, which hampers their access to aid and protection.

Moreover, the inadequacy of existing funding mechanisms is a significant barrier to effectively addressing climate migration. Prioritizing adaptation and sustainable solutions over short-term emergency aid is crucial. Innovative funding mechanisms, such as a dedicated global fund for climate migration, should be developed to ensure long-term support for affected communities. This approach will help build resilience and reduce the need for desperate measures, such as irregular migration.

Capacity building at all levels is equally essential. Strengthening early warning systems, improving data collection on migration trends, and empowering local actors with the necessary knowledge and tools will enhance the ability to anticipate and respond to climate-induced displacement. Collaborative efforts between governments, international organizations, civil society, and the private sector are imperative for developing comprehensive strategies that protect the rights and dignity of climate migrants.

Indeed, further research must be carried out in order to overcome the limitations that we have identified while conducting this study, especially concerning fundings. With no visible and rapid progress following their investments, donors are exposed to discouragement and “donor fatigue” that lead them to reduce their fundings, even though our research shows that it is crucial to invest more in adaptation and sustainable measures. Thus, it seems crucial to find a way to reverse this trend.

In conclusion, addressing climate-driven migration requires urgent, coordinated, and decisive action across legal, financial, and capacity-building domains. By implementing the recommendations outlined in this report, stakeholders can work together in the right direction to manage climate migration with compassion, resilience, and justice, ensuring a sustainable and humane future for all affected populations.

Bibliography

- Abel, G. J., Brottrager, M., Cuaresma, J. C., & Muttarak, R. (2019). Climate, conflict and forced migration. *Global environmental change*, 54, 239-249.
<https://doi.org/10.1016/j.gloenvcha.2018.12.003>
- Adger, W. N., Arnell, N. W., Black, R., Dercon, S., Geddes, A., & Thomas, D. S. (2015). Focus on environmental risks and migration: causes and consequences. *Environmental Research Letters*, 10(6), 060201. <https://doi.org/10.1088/1748-9326/10/6/060201>
- Biermann, F., & Boas, I. (2012). Climate Change and Human Migration: Towards a Global Governance System to Protect Climate Refugees. In J. Scheffran, M. Brzoska, H. G. Brauch, P. M. Link, & J. Schilling (Eds.), *Climate Change, Human Security and Violent Conflict* (Vol. 8, pp. 291–300). Springer Berlin Heidelberg.
https://doi.org/10.1007/978-3-642-28626-1_15
- Black, R., Adger, W. N., Arnell, N. W., Dercon, S., Geddes, A., & Thomas, D. (2011). *Migration and global environmental change: future challenges and opportunities*. <https://assets.publishing.service.gov.uk/media/5a74b18840f0b61df4777b6c/11-1116-migration-and-global-environmental-change.pdf>
- Campbell, J. R. (2014). Climate-change migration in the Pacific. *The Contemporary Pacific*, 1-28. <https://www.jstor.org/stable/23725565>
- Castles, S. (2002). Migration and community formation under conditions of globalization. *International migration review*, 36(4), 1143-1168. <https://doi.org/10.1111/j.1747-7379.2002.tb00121.x>
- Clement, V., Rigaud, K. K., de Sherbinin, A., Jones, B., Adamo, S., Schewe, J., Sadiq, N. & Shabahat, E. (2021). *Groundswell part 2 Acting on Internal Climate Migration*. <https://openknowledge.worldbank.org/entities/publication/2c9150df-52c3-58ed-9075-d78ea56c3267>
- Climate Policy Initiative. (2023). *Global Landscape of Climate Finance 2023*. <https://www.climatepolicyinitiative.org/publication/global-landscape-of-climate-finance-2023/>
- Francis, C. (2024, May 22). The Deal That Exposes the Global North’s Flawed Approach to Climate Migration. *Foreign Policy*. <https://foreignpolicy.com/2023/12/14/australia-tuvalu-pacific-islands-climate-migration-deal/>
- Gemenne, F. (2011). Why the numbers don’t add up: A review of estimates and predictions of people displaced by environmental changes. *Global Environmental Change*, 21, S41-S49. <https://doi.org/10.1016/j.gloenvcha.2011.09.005>
- Ghosh, R. C., & Orchiston, C. (2022). A systematic review of climate migration research: gaps in existing literature. *SN Social Sciences*, 2(5), 47. <https://doi.org/10.1007/s43545-022-00341-8>
- Global Centre for Climate Mobility. (n.d.). *Global Centre for Climate Mobility: Addressing Climate-Forced Migration*. Retrieved 19 May 2024, from <https://climatemobility.org/>

- Global Forum on Migration and Development. (n.d.). *Global Forum on Migration and Development Summit—| Environmental Migration Portal*. Retrieved 19 May 2024, from <https://environmentalmigration.iom.int/14th-global-forum-migration-and-development-gfmd-summit-environmental-migration>
- Hoffmann, R., Šedová, B., & Vinke, K. (2021). Improving the evidence base: A methodological review of the quantitative climate migration literature. *Global Environmental Change*, 71, 102367. <https://doi.org/10.1016/j.gloenvcha.2021.102367>
- Huang, L. (2023). *Climate Migration 101: An Explainer*. <https://www.migrationpolicy.org/article/climate-migration-101-explainer>
- Ida, T. (2021). Climate refugees—the world’s forgotten victims. In *World Economic Forum* (Vol. 18). <https://www.weforum.org/agenda/2021/06/climate-refugees-the-world-s-forgotten-victims/>
- Immigration, Refugees and Citizenship Canada. (2022, August 16). *Canada continues to improve the socio-economic integration of migrants and refugees in Latin America* [News releases]. <https://www.canada.ca/en/immigration-refugees-citizenship/news/2022/08/canada-continues-to-improve-the-socio-economic-integration-of-migrants-and-refugees-in-latin-america.html>
- Institute for Economics and Peace. (2020, September 9). *Over one billion people at threat of being displaced by 2050 due to environmental change, conflict and civil unrest* [Press Release]. <https://www.economicsandpeace.org/wp-content/uploads/2020/09/Ecological-Threat-Register-Press-Release-27.08-FINAL.pdf>
- International Displacement Monitoring Centre. (2015). *Global Estimated 2015: People Displaced by Disasters*. <https://www.internal-displacement.org/sites/default/files/inline-files/20150713-global-estimates-2015-en-v1.pdf>
- International Displacement Monitoring Centre. (2016). *Global Report on Internal Displacement*. <https://www.internal-displacement.org/globalreport2016/pdf/2016-global-report-internal-displacement-IDMC.pdf>
- International Organization for Migration. (2019). *Glossary on migration*. https://environmentalmigration.iom.int/sites/g/files/tmzbd11411/files/iml_34_glossary.pdf
- International Organization for Migration. (2020). *Submission to the European Assembly of the Council of Europe on Migration, Environment and Climate Change*. <https://environmentalmigration.iom.int/sites/g/files/tmzbd11411/files/02%20IOM%20submission%20Committee%20Migration%20Parliamentary%20Assembly%20Council%20of%20Europe%20FINAL.pdf>
- International Organization for Migration. (n.d.). *A Complex Nexus*. <https://www.iom.int/complex-nexus>
- Keane, D. (2003). The environmental causes and consequences of migration: a search for the meaning of environmental refugees. *Geo. Int'l Env'tl. L. Rev.*, 16, 209. <https://heinonline.org/HOL/P?h=hein.journals/gintenlr16&i=221>

- Leal Filho, W., Ayal, D. Y., Chamma, D. D., Kovaleva, M., Alverio, G. N., Nzengya, D. M., Mucova, S. A. R., Kalungu, J. W., & Nagy, G. J. (2023). Assessing causes and implications of climate-induced migration in Kenya and Ethiopia. *Environmental Science & Policy*, 150, 103577. <https://doi.org/10.1016/j.envsci.2023.103577>
- McAdam, Jane. (2012). 'Protection' or 'Migration'? The 'Climate Refugee' Treaty Debate, *Climate Change, Forced Migration, and International Law*. <https://doi.org/10.1093/acprof:oso/9780199587087.003.0008>
- McAuliffe, M., & Triandafyllidou, A. (Eds.). (2021). *World Migration Report 2022*. International Organization for Migration. <https://publications.iom.int/books/world-migration-report-2022>
- McInerney, E., Saxon, J., & Ashley, L. (2022). Migration as a climate adaptation strategy: Challenges & opportunities for USAID programming [Discussion paper]. United States Agency for International Development. https://www.climatelinks.org/sites/default/files/asset/document/2023-01/FTF1537_USAID_Climate%20Migration%20Strategy_012723.pdf
- Ministry of Disaster Management and Relief. (2021). National Strategy on Internal Displacement Management (NSIDM). Government of the People's Republic of Bangladesh. [https://modmr.portal.gov.bd/sites/default/files/files/modmr.portal.gov.bd/publications/d05820e8_b72f_43a1_8cfe_4b4bd34a2560/NSIDM%20Publication\(Size%206.5%20X%209.5%20in\).pdf](https://modmr.portal.gov.bd/sites/default/files/files/modmr.portal.gov.bd/publications/d05820e8_b72f_43a1_8cfe_4b4bd34a2560/NSIDM%20Publication(Size%206.5%20X%209.5%20in).pdf)
- Ministry of Environment, Forest and Climate Change. (2022). National Adaptation Plan of Bangladesh (2023-2050). Government of the People's Republic of Bangladesh. https://moef.portal.gov.bd/sites/default/files/files/moef.portal.gov.bd/npfblock/903c6d55_3fa3_4d24_a4e1_0611eaa3cb69/National%20Adaptation%20Plan%20of%20Bangladesh%20%282023-2050%29%20%281%29.pdf
- Moore, M., & Wesselbaum, D. (2023). Climatic factors as drivers of migration: a review. *Environment, Development and Sustainability*, 25(4), 2955-2975. <https://doi.org/10.1007/s10668-022-02191-z>
- Nabong, E. C., Hocking, L., Opdyke, A., & Walters, J. P. (2023). Decision-making factor interactions influencing climate migration: A systems-based systematic review. *Wiley Interdisciplinary Reviews: Climate Change*, e828. <https://doi.org/10.1002/wcc.828>
- National Adaptation Plan of Bangladesh (2023-2050). 2022. Reprint, Ministry of Environment, Forest and Climate Change, Government of the People's Republic of Bangladesh, 2022.
- OHCHR. 'A/HRC/53/34: Providing Legal Options to Protect the Human Rights of Persons Displaced across International Borders Due to Climate Change'. Accessed 14 June 2024. <https://www.ohchr.org/en/documents/thematic-reports/ahrc5334-providing-legal-options-protect-human-rights-persons-displaced>.
- Scheffran, J., Brzoska, M., Brauch, H. G., Link, P. M., & Schilling, J. (Eds.). (2012). *Climate Change, Human Security and Violent Conflict: Challenges for Societal Stability* (Vol. 8). Springer. <https://doi.org/10.1007/978-3-642-28626-1>

- Seto, K. C. (2011). Exploring the dynamics of migration to mega-delta cities in Asia and Africa: Contemporary drivers and future scenarios. *Global Environmental Change*, 21, S94-S107. <https://doi.org/10.1016/j.gloenvcha.2011.08.005>
- SICA : Sistema de la Integración Centroamericana. “Un vistazo a la Integración,” 2024. <https://www.sica.int/sica/vista.aspx?Idm=1>.
- Thinking about Tomorrow, Acting Today: Solutions to Address Climate Mobility*. (n.d.). International Organization for Migration. Retrieved 19 May 2024, from <https://www.iom.int/news/thinking-about-tomorrow-acting-today-solutions-address-climate-mobility>
- Tusiiime, Lucas. “Uganda Signs the IGAD Free Movement Of Persons Protocol.” IGAD (blog), May 14, 2024. <https://igad.int/uganda-ratifies-the-igad-free-movement-of-persons-protocol/>.
- UNEP Copenhagen Climate Centre. (2022). Technology transfer for climate mitigation and adaptation: Analysing needs and development assistance support in technology transfer processes [Policy brief]. <https://unepccc.org/wp-content/uploads/2023/06/tech-transfer-policy-brief-oecd.pdf>
- United Nations General Assembly. (2016). *New York Declaration for Refugees and Migrants*. https://www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/A_RES_71_1.pdf
- United Nations High-Level Advisory Board on Effective Multilateralism. (2024). A breakthrough for people and planet: Effective and inclusive global governance for today and the future. <https://highleveladvisoryboard.org/breakthrough/>
- United Nations Human Rights Council. (2014). *Report of the Special Rapporteur on the human rights of internally displaced persons, Chaloka Beyani*. <https://digitallibrary.un.org/record/771916?ln=en>
- Warner, K., Hamza, M., Oliver-Smith, A., Renaud, F., & Julca, A. (2010). Climate change, environmental degradation and migration. *Natural Hazards*, 55, 689-715. <https://doi.org/10.1007/s11069-009-9419-7>
- Werrell, C., & Femia, F. (2017). *G20 Policy Brief on Climate and Displacement*. The Center for Climate & Security. <https://climateandsecurity.org/2017/03/g20-policy-brief-on-climate-and-displacement/>