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The Climate-Migration Crisis: Challenges and Policy Responses

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ABSTRACT

As climate change has intensified, migration has increased, pushing millions of people off their land due to rising sea levels, extreme weather events, and environmental degradation. This study examines the intricate relationship between climate change and migration, analysing the key drivers of climate-induced displacement. Although a number of countries recognise the climate migration crisis as one of the most important global challenges, current governance frameworks and policies are not yet adequate to deal with it. International treaties such as the Paris Accord recognise adaptation and resiliency, but they do not include concrete steps to safeguard the rights of climate migrants. The study calls for a more rights-based perspective on climate migration, urging proactive adaptation measures, the incorporation of climate resilience into urban planning, and greater international cooperation to promote equitable access to resources. The paper aims to bridge the gap between understanding the climate-migration nexus and effective solutions by providing empirical evidence along side actionable policy recommendations. It recommends taking transformative action at the national and international levels to protect displaced people and build resilience in vulnerable areas.

Keywords: *Climate Change, Migration, Displacement, and Policy Responses.*

Introduction

Climate change has become one of the most pressing issues facing modern society, and has been shown to have profound implications for human security, sustainable development and global governance[1]. In addition to its biophysical effects, climate change is also affecting migration trends through its impacts on ecological systems, livelihoods and regional vulnerabilities. Sea-level rise, long droughts, desertification, altered precipitation, and more frequent and intense extreme climatic events have forced millions of people to move temporarily or permanently from

1 The Intergovernmental Panel on Climate Change (IPCC) recognises climate change as a significant threat to human well-being, human security, and sustainable development. For further details, see Cissé et al. (2022), *Health, Wellbeing, and the Changing Structure of Communities*, Chapter 7 of the Sixth Assessment Report of the IPCC.

their places of birth. Migration is an adaptive strategy that is increasingly crucial for individuals and communities facing environmental degradation, seeking better, safer lives and economic opportunities.[2]

The connection between climate change and migration is not simple or consistent. Migration decisions can be influenced by a variety of environmental, economic, social and political factors that are complexly interconnected. Although climate-related triggers, such as environmental stressors, can cause displacement, the extent of population vulnerability can be shaped by structural inequalities, including poverty, weak institutional capacity, limited access to resources, and a lack of adaptive capacity. This leaves already marginalised communities more vulnerable and with reduced opportunities for recovery and adaptation. The effects of climate-induced migration are profound in both the sending and receiving regions. At the origin of the movement, population migration can cause demographic change, labour shortages, and loss of social and cultural connections. Meanwhile, the pressure on destination areas especially urban centres in developing countries may intensify strain on public services such as housing, employment, health, education, and other services[3]. Unsustainable and unplanned migration can further widen inequities within existing social, economic and political structures and lead to social tensions, particularly in areas with scarce resources and infrastructure. The challenges are indicative of the links between climate change, migration and development.

While there is global awareness of climate-related displacement, current legal and policy frameworks are inadequate for addressing its multidimensional nature. International mechanisms for refugee status do not specifically mention climate migrants, which means that many climate migrant populations have no legal classification or protection. While the Paris Agreement and the Global Compact for Migration recognise the significance of climate-related mobility, there are still many policy commitments and implementation gaps. The lack of a comprehensive governance arrangement remains a challenge to an effective, coordinated response at the local, national, and international levels. In this context, this study explores the climate change-migration nexus through an examination of the drivers of CIDs, the vulnerabilities of affected populations and the gaps in current governance structures. The study emphasises that climate migration should be tackled through a rights-based, multi-sectoral approach, highlighting the need for a more concerted international response, the inclusion of vulnerable groups in policy processes, and a long-term commitment to climate adaptation investments. These are necessary not only to protect the rights of displaced people but also to promote equitable and sustainable development amid the rapid pace of environmental change.

Issues of Climate Migration

The lack of a universally agreed-upon legal status of climate migrants is one of the greatest challenges in the context of climate migration. According to the 1951 Refugee Convention (and its 1967 Protocol), refugees are those who are fleeing due to "race, religion, nationality, political opinion or membership in a particular social group. This definition does not include environmental and climate-related issues (United Nations High Commissioner for Refugees [UNHCR], 2023). As a result, millions of people affected by climate change are excluded from international refugee protection, leaving a significant governance gap. Another significant challenge is the growing pressure on receiving urban areas from climate migrants. The majority of climate migrants move within their country, from rural to urban areas (towards neighbouring towns/cities). It frequently results in quick urbanisation, overcrowding, poor housing, higher unemployment rates, and a burden on public facilities. In developing countries, cities are often poorly equipped, institutionally and economically, to cope with large-scale migration flows, leading to the growth of informal settlements and increased socioeconomic inequalities (Black et al., 2011)[4].

Social cohesion and political stability are also deeply affected by climate migration. Rivalry for limited natural resources (including water, land, job opportunities, public services) can create tensions between host populations and migrants. Conflict is not necessarily the direct result of migration, but it can be intensified by migration's impact on underlying problems, such as social, ethnic, or political grievances (International Organization for Migration [IOM], 2022). Climate-induced displacement can contribute to instability and affect peace building efforts in fragile states.

2 Climate-related migration may occur in response to both sudden-onset events, such as floods, cyclones, and storms, and slow-onset environmental processes, such as drought, desertification, land degradation, and sea-level rise. Migration can serve as an adaptive strategy for individuals and households experiencing environmental stress, although the decision to migrate is also influenced by socioeconomic conditions and available resources. For further details, see Clement et al. (2021), *Groundswell Part 2: Acting on Internal Climate Migration*, published by the World Bank.

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4 The 1951 Refugee Convention does not explicitly recognise climate change as a ground for refugee status, creating a protection gap for climate-displaced populations. Climate-induced migration also increases pressure on urban infrastructure and public services, particularly in developing countries. For further details, see UNHCR (2023) and Black et al. (2011).

Another major problem is the loss of cultural identity and social networks. There is a strong cultural, spiritual and historical attachment of many displaced communities, especially Indigenous communities and people living in small island developing states, to their places of origin. Forced migration can also negatively impact these relationships through the loss of cultural heritage, traditional knowledge systems, and community bonds (McAdam, 2012). These losses are not fully captured by economic metrics and illustrate the multi-dimensional effects of climate-induced displacement.

The climate migration phenomenon is further complicated by gender aspects. Women and girls often face unequal disadvantages when displaced: An elevated risk of gender based violence, inability to access health services, interrupted education and economic marginalisation. Women are also frequently key actors in community resilience and adaptation. Therefore, climate migration policies must incorporate gender-sensitive approaches to ensure equitable protection and participation.

Climate Migration and Global Governance

There is a lack of coherence, development, and effectiveness in the governance of climate migration, hindering the ability to respond to the increasing scale of climate-induced migration. Increasing climate change implications on migration trends have heightened the demand for coherent international, regional and national governance frameworks. Although climate migration has become a major global issue, current international law and institutional frameworks are not robust enough to provide adequate protection and support for people affected by it. Efforts to create a comprehensive governance regime remain complicated by the complexity of climate migration, which can involve environmental, economic, social and political factors interacting.

Over the past few years, the link between climate change and human mobility has been increasingly recognised through international agreements and policy frameworks. An important milestone was achieved with the Paris Agreement in 2015, when the displacement of people was identified as one of the negative effects of climate change, and the Task Force on Displacement was established under the Warsaw International Mechanism for Loss and Damage. The Task Force aims to improve knowledge of climate-related displacement, coordination, and policy development. Its mandate, however, is mainly advisory and doesn't legally require states to ensure the safety of climate migrants or to offer avenues for resettlement and compensation (UNFCCC, 2015)[5].

Likewise, the Global Compact for Safe, Orderly and Regular Migration (GCM), adopted in2018, recognises climate change, environmental degradation and natural disasters as major contributors to migration. The Compact urges member states to increase resilience, enhance disaster preparedness, and build environmental considerations into migration policies. Although the GCM is a significant development in bringing climate considerations into the governance of migration, it is a non-binding agreement that relies on states' goodwill to implement and cooperate. Consequently, there are significant gaps in climate-induced migration responses, including policies and institutional capacity, across countries, with some states lacking either policies or institutional mechanisms to address migration and climate change (United Nations, 2018)[6].

One of the difficulties of global governance is that there is no specific legal category of climate migrants. The current international refugee law does not include environmental or climatic causes in the definition of a refugee. The 1951 Refugee Convention and its 1967 Protocol do not provide for refugee status on the basis of environmental or climatic circumstances. Persons who are refugees are those who are fleeing persecution because of race, religion, nationality, membership in a particular social group, or political opinion. As a result, those displaced by sea-level rise, droughts, floods, and other climate-related events are typically not recognised as refugees under international refugee law. There is a legal lacuna regarding rights, protection, and international support for millions of climate migrants who lack such protections (McAdam, 2012). The challenge is further complicated by the diversity of climate migration patterns.

Migration is often linked to multiple environmental and socio-economic stressors instead of a single climatic event. This multi-dimensionality makes it hard to define who is considered a climate migrant and how he or she should be protected. This makes it difficult for governments and international bodies to establish a uniform legal definition and

5 The Paris Agreement recognises displacement associated with climate change and establishes a Task Force to develop recommendations for addressing climate-related human mobility. For further details, see UNFCCC (2015).

6 The Global Compact provides an international framework for addressing environmental and climate-related migration through cooperation, resilience-building, and disaster preparedness. However, it is non-binding. For further details, see United Nations (2018).

policy actions. Some of these deficiencies have been tried to be mitigated through regional governance initiatives. In Africa, for example, regional strategies addressing migration and disaster management have increasingly integrated climate mobility. The African Union's Kampala Convention, adopted in 2009, is one of the most comprehensive pieces of legislation to protect IDPs, including IDPs caused by natural disasters and environmental factors. However, these regional initiatives remain ineffective due to implementation challenges, a lack of resources, and limited institutional capacity[7] (African Union, 2009).

The topic of climate migration also raises a whole array of questions about climate justice and historical responsibility. Developing countries are the least responsible for global green house gas emissions and the most vulnerable to the effects of climate change. Developing countries, particularly LDCs and SIDS, contribute less to GHG emissions and are the most affected by climate change. Countries like Kiribati, Tuvalu, the Maldives, and Sub-Saharan countries are at greater risk of displacement, even though they have contributed little to global warming. This inequitable burden of climate impacts has sparked demands for a greater role by industrialised countries in tackling climate change, which have historically been responsible for the largest share of greenhouse gas emissions[8] (Robinson & Shine, 2018).

The call for climate justice is for the developed, or climate haves, to accept more of the burden of assisting the vulnerable, or climate have-nots, through financial support, technology transfer, capacity development, and migration support. Climate finance, therefore, plays an important role in global governance. The Green Climate Fund and the Loss and Damage Fund are established to support vulnerable nations in adaptation and in addressing losses deemed irremediable. But the pledged funds are often insufficient relative to needs, and bureaucratic barriers restrict access to available resources. With the growing number of climate-induced displacements, the need for specific financing mechanisms is likely to grow significantly. A second key governance issue is the sharing of responsibility among states. Climate migrants could strain neighbouring nations and communities, especially in areas already economically and politically fragile. There are no agreed-upon international burden-sharing arrangements; the obligations of states to climate-displaced populations are uncertain. If cooperation between nations is lacking, destination countries could be tempted to implement stricter migration policies that further exacerbate the vulnerabilities of affected populations.

Planned relocation is also a governance challenge as it becomes more common. For some communities, adaptation may no longer be enough to face irreversible environmental changes, including permanent inundation from sea-level rise. This means that the relocation of entire communities may be necessary for the government. Planned relocation can minimise exposure to environmental hazards, but it can also trigger human rights issues, including concerns about the protection of culture, land rights, community involvement, and livelihood security. Relocations should be voluntary, participatory, and based on the principles of social justice and human dignity to produce effective governance.

Human rights principles should occupy a central position within climate migration governance. Climate migrants may be vulnerable in several ways, such as the loss of their livelihoods, lack of access to housing, healthcare, education, and legal protection, and discrimination. A rights-based approach focuses on the right so fall people, irrespective of their migration status, and calls for policies oriented toward human dignity, social inclusion, and equal access to resources. Incorporating the human rights dimension into climate adaptation and migration policies can help prevent the marginalisation of affected populations during migration and resettlement. Looking ahead, strengthening global governance requires a more comprehensive and coordinated approach[9]. This encompasses improved legal safeguards for climate-displaced persons, greater international collaboration, increased climate finance, better regional frameworks, and the incorporation of a migration dimension into planning for climate adaptation and sustainable development. More cooperation between governments, international organisations, civil society organisations, and local communities will be key to tackling the multifaceted issue of climate mobility.

7 The Kampala Convention provides a regional legal framework for protecting and assisting internally displaced persons, including those displaced by natural disasters and environmental factors. However, its implementation depends on national capacity, institutional coordination, and adequate resources. For further details, see African Union (2009).

8 Climate justice emphasises the unequal distribution of responsibility for greenhouse gas emissions and vulnerability to climate impacts. It highlights the need for greater financial and institutional support from historically high-emitting countries to vulnerable developing nations. For further details, see Robinson and Shine (2018).

9 A human rights-based approach to climate migration emphasises the protection of human dignity, equality, and access to essential services, irrespective of migration status. It also highlights the need for international cooperation, climate finance, legal safeguards, and inclusive adaptation policies to protect climate-displaced populations. For further details, see UNHCR (2023) and the United Nations Human Rights Council (2018).

Policy Responses and Adaptation Strategies

Climate migration responses should be approached through a more in-depth, multi-sectoral, and long-term policy strategy that acknowledges the cross-cutting nature of environmental change, human mobility, sustainable development, and human rights. The growing number of climate-induced displacements in various parts of the world must move beyond reactive responses and call for a proactive approach to reduce vulnerability, boost resilience, and protect affected populations. Policy responses to climate-induced migration should focus not only on the impacts of displacement but also on the structural conditions that make communities vulnerable to it.

Climate change adaptation is a key element of any policy response. Improving vulnerable communities' ability to adapt can greatly reduce forced migration by helping them stay in their homes and sustain their livelihoods. Spending on climate-resilient agriculture, sustainable water management systems, drought-resistant crops, flood-control infrastructure, renewable energy technologies,andecosystemrestorationshouldbeatopprioorityofadaptationstrategies. Thiscan help improve food security, increase livelihood opportunities, and reduce the socioeconomic drivers of migration. The importance of community-based adaptation programs lies in the local community itself coming into the picture, taking part in the decision-making process, and developing solutions relevant to its environmental and social situation.

Another important aspect of climate migration governance is Disaster Risk Reduction (DRR). The increasing occurrence and severity of climate-related disasters emphasise the need to enhance preparedness and response mechanisms. The risk of displacement and the suffering of people can be significantly mitigated through early warning systems, disaster-resilient infrastructure, emergency evacuation plans, and community awareness programs. Combining climate adaptation and disaster risk reduction together means that the governments can tackle not only sudden hazards like floods or cyclones but also slow hazards like desertification or sea-level rise. The Sendai Framework for Disaster Risk Reduction can offer useful guidance to boost resilience and minimise disaster-related displacement.

Migration may be seen as an adaptive response and not merely a humanitarian issue in many parts of the world. Policymakers therefore need to choose strategies that enable safe, orderly and dignified mobility and maximise its development benefits. For populations impacted by environmental degradation,there are legal channels for labour migration programs, seasonal migration arrangements, and cross-border mobility arrangements. These mechanisms not only diminish vulnerability but also provide opportunities for migrants to economically support their communities of origin and destination through their labour, remittances, and knowledge. Recognising migration as adaptation can help redirect migration policy discussions from crisis management to building resilience and sustainable development.

However, there are times when the environment makes it impossible to stay a while longer. In these cases, it might be deemed necessary to adapt by relocating: planned relocation. Planned Relocation is the organised relocation of communities from high-risk areas to safer ones prior to disasters. Relocation is a complicated and delicate process that needs to be handled with consideration for social, cultural, economic, and psychological factors. To avoid further marginalisation of affected populations, relocation programmes must be based on human rights, community involvement and social justice principles. Successful relocation efforts include participation and consultation with communities, appropriate compensation, protection of land and property rights, restoration of livelihoods, and sustainable monitoring mechanisms (Ferris & Weerasinghe, 2020). These protections are necessary if relocation is to be undertaken, as otherwise it can create additional vulnerabilities and social exclusion. Climate migration is increasingly a concern for urban governance and planning, as many migrants move towards urban areas. Urbanisation, if it proceeds at a rapid pace, can strain housing, transportation, health care, education, and job markets. As such, governments should embed migration into the framework of urban development policies and planning. Cities can provide for new arrivals and reduce social tensions through investments in affordable housing, climate-resilient infrastructure, public transportation, sanitation facilities and social protection programmes. The creation of cities resilient to climate change and inclusive of migrants is of fundamental importance not only for the protection of migrants themselves, but also for the sustainability and social cohesion of cities.

The need to safeguard vulnerable groups should remain at the heart of adaptation and migration policies. Women, children, older persons, Indigenous people, persons with disabilities and economically disadvantaged groups are frequently at a greater risk during displacement. Gender-sensitive policies are especially important, as women often are exposed to greater risks of exploitation, gender-based violence and economic in security in migration situations. Itisthus important to consider gender equality, social inclusion, access to education and health services, and the meaningful involvement of vulnerable groups in decision-making processes in adaptation strategies.

A rights-based approach helps ensure that policies on climate migration not only address economic or security issues but also consider human dignity and social justice. The national government should incorporate climate mobility in to national development planningand policy frameworks. The multifaceted nature of climate-induced displacement should be reflected in the planning of national adaptation plans, disaster management strategies, migration policies, and sustainable development agendas. Governments can improve their capacity to predict migration patterns and craft policy responses by strengthening institutional capacity, building data collection systems, and investing in climate risk assessments.

International cooperation is essential to respond to the trans boundary nature of climate migration. Climate change is a global issue, and the impacts are not equally felt across countries – thus, no single country can respond to climate-induced displacement effectively. Vulnerable countries have a special responsibility to receive financial support, technology transfer, and capacity building from developed countries, which have historically emitted the highest levels of GHGs. Greater capacity for financing adaptation in developing countries is essential to alleviate displacement pressures and facilitate adaptation efforts. There is a need to strengthen existing funding mechanisms, such as the Green Climate Fund and the Loss and Damage Fund, to better support adaptation measures for migration and community resilience programmes.

International organisations also have a key role in coordinating responses, sharing knowledge and fostering policy coherence. The United Nations, the International Organisation for Migration (IOM), the United Nations High Commissioner for Refugees (UNHCR) and other organisations can help develop best practices, assist affected governments and promote greater protection for climate-displaced populations. There is a need for increased international collaboration to set common standards, strengthen mechanisms for sharing responsibilities, and better protect people affected by environmental change. Establishing legal frameworks and norms for climate migrants is one of the key policy priorities. International refugee law is inadequate to cope with the displacement caused by climate change, resulting in gaps in protection. Although a new international climate migrant convention will be difficult to achieve politically, existing international human rights mechanisms can be strengthened to better protect climate migrants.

Legal reform should be directed towards access to basic rights, protection from discrimination and provision of assistance and resettlement where needed.

Conclusion

Climate change has become a strong driver of human mobility and hassignificantly altered local, national, and global migration patterns. Rising seas, extreme weather, long droughts, desertification, and ecosystem degradation are environmental stressors that are increasingly affecting livelihoods and human security, forcing individuals and communities to move, as shown in this study. Climate-induced migration is, therefore, not only an environmental impact but also a multifaceted and complex phenomenon that falls within the ambit of development, governance, human rights, and social justice. It further demonstrates that climate migration is a multifaceted phenomenon shaped by environmental, economic, political, and social factors. Migration may be an adaptation mechanism, but it can also be accompanied by new vulnerabilities,includingeconomicinsecurity,socialexclusion,limitedaccesstopublicservices, and legal uncertainty for migrants. The effects are especially profound for marginalised communities, women and Indigenous peoples, and the people of climate-sensitive areas who have limited adaptive capacity and resources. Climate migration must, therefore, be seen less as a humanitarian issue and more as an important development and governance issue.

The study also calls for strengthening the current international and national legal and governance systems to reflect the increased volume and complexity of climate-induced displacement. While key steps have been taken, including the adoption of the Paris Agreement and the Global Compact for Migration, there are still substantial gaps in the legal protection, institutional coordination and policy implementation of migration and climate change. Without dedicated international laws or systems to protect and safeguard the rights of climate migrants, millions of people continue to face a lack of rights or protection. This governance gap results from global disparities in the climate regime, in which the countries least responsible for greenhouse gas emissions are the most affected by climate-induced migration.

To tackle climate migration, a paradigm shift and a forward-looking policy perspective are needed to go beyond short-term crisis management. Responding to climate change will require increased efforts to build climate

adaptation capacity, improve disaster risk reduction strategies support climate-resilient urban development, provide safe and orderly migration routes, and meaningfully involve communities. Equally important is the incorporation of human rights principles into all aspects of migration management, so that those affected by environmental change are not only victims of environmental change but also endowed with dignity, protection, and opportunities for sustainable livelihoods. Climate migration is a challenge that highlights the need for increased cooperation and collective responsibility. Climate change is an interstate issue, and cross-border collaboration is essential across state and international organisations, civil society, and local communities. Support for the most vulnerable regions and the building of resilience will depend on bolstering climate finance, technology transfer, capacity building, and fair burden-sharing measures. These actions need to be undertaken through a climate justice lens, as they will have a disproportionate impact on populations with the least culpability for climate change.

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