The Climate Migration Council (CMC) is a group of leaders who share a commitment to putting people at the center of climate action and accelerating global action on climate-related migration.

In releasing this Explainer, our aim is to promote a deeper understanding of some of the key concepts, numbers, and terminology that define the interrelationship between the climate crisis and movement of people within and across borders. This Explainer will be of use to CMC members who are already engaging on these issues, but also to policymakers, media, and other stakeholders. While this Explainer is not meant to be a definitive guide to the ever-expanding body of data, research, or life experiences of people impacted by the climate crisis, it aims to inform a more sophisticated and nuanced understanding of the contours of climate migration, while offering principles to guide solutions.

For more information about the Climate Migration Council, please visit www.climatemigrationcouncil.com or contact info@climatemigrationcouncil.org. For more information about IOM, please contact mecrhq@iom.int. For more information about Emerson Collective’s climate displacement work, please contact shana@emersoncollective.com.

This Explainer was authored and edited by IOM and Emerson Collective, with review by the Climate Migration Council’s Academic Work Group.
1. Understanding Climate Migration

The worsening impacts of the climate emergency are affecting populations worldwide and increasingly shaping whether, where, and how people move (or do not move) depending on social, political, economic, and environmental contexts. Climate change compounds existing risks confronting communities across the globe, and affects various communities unevenly depending on their capacity to build resilience in the face of climate impacts.

As noted by the Intergovernmental Panel on Climate Change (IPCC), the United Nations body for assessing the science related to climate change, the impact of climate change on human mobility is multidirectional: “Specific climate events and conditions may cause migration to increase, decrease, or flow in new directions.” Climate hazards can displace people directly, through the impact of sudden-onset events such as hurricanes, floods, or fires. Climate hazards can also displace people indirectly, through slow-onset processes such as drought, erosion of coastlines, and increased heat, which can have negative effects on livelihoods, income, or food security and compel people to move.

Climate mobility implicates many fundamental human rights and therefore must be considered from a rights-based approach. When people desire to stay in their home communities, it is critical to support their right to do so by investing in resilience and preventing avoidable climate-related displacement whenever possible. It is equally essential to support freedom of movement by protecting people who have been displaced and designing safe mobility pathways for more proactive movement when people are impacted by either slow or sudden onset climate hazards.

It is within this context that we aim to create more equitable migration policies and solutions for all people on the move, as well as to build resilience among communities affected by worsening climate hazards. Migration may contribute to climate adaptation and disaster-risk reduction when well managed. With supportive policy and legal frameworks in place, climate-related movement can offer positive outcomes for migrants and host communities, despite its hazardous origins. With regard to existing migration frameworks, the IPCC has indicated that “the more agency migrants have (i.e., the degree of voluntariness and freedom of movement), the greater the potential benefits for sending and receiving areas.”

Cities are crucial actors in the response to climate mobility. They already receive and will increasingly receive migrants moving from rural or coastal to urban areas. At the same time, cities are also exposed to climate hazards, such as flooding, sea level rise, or water scarcity. Subnational leaders thus play a key role in integrating internal and cross-border migrants, and in building resilience against worsening hazards.

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1 The term migration as used in this explainer is conceived as an umbrella term referring expansively to human mobility, including the different manners in which people move in contexts of climate change. While no agreed definition exists at the international level (see definitions section below), human mobility in contexts of climate change occurs on a continuum, which includes immobility, forced movement, and more voluntary movement in which migrants possess various degrees of agency.
“People who are displaced from their land and homes are highly vulnerable to loss of their basic rights. Increased displacement due to climate change means that the enjoyment and protection of their most basic rights, including the right to life, health, housing, decent work, water, food, and security are under profound threat.”

Navi Pillay
United Nations High Commissioner for Human Rights
(2008–2014)

“One of the most devastating effects of climate change is forced migration. In the Global South, more and more people are being forced to leave their homes after losing their towns to rising sea levels, drought, water scarcity, deforestation, and disasters. In tackling migration, we must also tackle climate change.”

Laura Chinchilla
President of Costa Rica
(2010–2014)

“As climate change drives more and more people to leave their homes and become displaced, protection through safe and legal pathways is critical. Alongside this, the business community will have a pivotal role to play in creating and providing sustainable opportunities.”

Hamdi Ulukaya
Founder & CEO
Chobani

“Every day, the climate emergency is ripping people away from their homes. Those most vulnerable are least responsible for the crisis, have the fewest resources to recover, and little political power. World leaders must respond with greater ambition on climate action, accountability for promises made, and equity in our solutions.”

Manish Bapna
President & CEO
National Resources Defense Council

PERSPECTIVES FROM THE CLIMATE MIGRATION COUNCIL
2. The Definitions

Migrants
An umbrella term, not defined in international law, reflecting the common understanding of a person who moves away from their place of usual residence, whether within a country or across an international border, temporarily or permanently, and for a variety of reasons.4

Disaster
A “serious disruption of the functioning of a community or a society at any scale due to hazardous events interacting with conditions of exposure, vulnerability, and capacity, leading to one or more of the following: human, material, economic and environmental losses and impacts.”5

Becca Heller
Executive Director & Co-founder
International Refugee Assistance Project

“Taking climate action doesn’t mean reducing carbon pollution OR supporting people in adapting to change — we need to do both. A just climate response includes making it possible for people to move to safety. We invite you to join a growing movement to build a legal framework so people can move before disasters strike rather than afterward.”
2. THE DEFINITIONS

Climate Mobility

Understood to encompass three types of movement: (1) displacement, (2) migration, and (3) planned relocation. Most experts use displacement to refer to movement that is primarily forced; migration to refer to movement that is primarily voluntary; and planned relocation to refer to the planned movement of communities, typically within the same country. A fourth category refers to (4) trapped or immobile populations that are unable or unwilling to move despite severe climate hazards.

1. DISASTER DISPLACEMENT

The movement of persons who have been forced or obliged to leave their homes or places of habitual residence as a result of a disaster or in order to avoid the impact of an immediate and foreseeable natural hazard.

2. CLIMATE MIGRATION

The movement of a person or groups of persons who, predominantly for reasons of sudden or progressive change in the environment due to climate change, are obliged to leave their habitual place of residence, or choose to do so, either temporarily or permanently, within a country or across an international border. Climate change is often categorized as a threat multiplier, that is, a factor that accelerates other factors that motivate the temporary or permanent movement of people from their communities of origin.

3. PLANNED RELOCATION

In the context of disasters or environmental degradation, including the effects of climate change, a planned process in which persons or groups of persons move or are assisted to move away from their homes or place of temporary residence, are settled in a new location, and provided with the conditions for rebuilding their lives.

4. TRAPPED OR IMMOBILE POPULATIONS

“[P]opulations who do not migrate, yet are situated in areas under threat, [...] at risk of becoming ‘trapped’ [or having to stay behind], where they will be more vulnerable to environmental shocks and impoverishment.” This framing may apply to poorer households that may not have the resources to move and whose livelihoods are affected by environmental change. Alternatively, it may also apply to communities who do not desire to leave ancestral lands despite the challenges posed by climate change.

Source: Groundswell, 2018.
3. The Numbers

Quantifying the impacts of climate change on human movement is a difficult task. It is technically challenging to define and measure numbers of migrants and to isolate climatic drivers, given the multi-causal nature of most migration. Not all people affected by climate change have the capacity, opportunity, or willingness to move. Climate impacts may displace some populations multiple times from the same location. Future projections must also be handled with extreme care, given the possibility that figures will be misinterpreted or misapplied and that multiple forces affect the interface between climate change and human mobility. That said, a variety of models and figures can present an idea of the challenges ahead:

**Disaster-Related Internal Displacement:**
According to the Internal Displacement Monitoring Centre, an average of **26 million new displacements** have been recorded annually from 2018 to 2022 due to the impact of various disasters. In 2022 alone, **32.6 million new disaster displacements** were registered worldwide, notably due to floods (59%) and storms (31%).

**Internal Climate Migration:**
The World Bank’s 2021 Groundswell Report signaled that without adequate climate action and development support, by 2050 climate change could lead more than **216 million people** to become internal migrants in Latin America, Eastern Europe, Central Asia, North Africa, Sub-Saharan Africa, South Asia and East Asia, and the Pacific.

**Cross-border Migration:**
Adverse environmental factors tend to have stronger effects on internal, especially rural-urban, migration, than on cross-border migration. The data on cross-border disaster displacement flows remains limited, though some smaller-scale case studies exist exploring this facet of human mobility. These have produced a range of results that are not always consistent with one another.

**Exposure to Coastal Hazards:**
Currently, **110 million people** live in low-elevation coastal zones, but this figure could rise to **1 billion** by 2050. This approximately tenfold expansion of coastal populations that are vulnerable to coastal erosion in just 20 to 30 years suggests how fraught it is to project the complex migration implications and dynamics that will result from destabilizing climate factors.

**Where Humans Can Live:**
The area of the human climate niche, understood as the part of the globe that is most suited for human life, will decrease drastically under severe climate change scenarios. In 2023, climate change has already put approximately **one-tenth of the global population** outside of this niche. By 2100, current emission scenarios and a global warming of 2.7°C would raise the number of people outside of the human niche to **one-third of the global population**.
Children around the world are telling us that climate-induced migration has forced them from their homes or driven their friends away. Our research shows an estimated 10 million children were displaced by climatic impacts in 2020. Increasingly, families’ displacement is permanent and to places at equal or greater climate risk.

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Cities generate 75% of CO2 emissions and consume 80% of energy. If we recognized the interdependence between the climate crisis and migration, and invested in cities’ homes, energy, mobility, and decarbonized growth, it would help cities like Freetown and Kampala turn from transition cities to destination cities AND contribute to the battle against climate breakdown.

“The role of the city is to find settlements for those communities whose lives are impacted by recurring droughts. Hargeisa has 19 temporary settlements for internally displaced people, and over 100,000 families are settled there. The largest community migration is rural communities, second is organized refugees’ migration, third is transit migrants.”
4. Guiding Principles for Solutions

Given the powerful implications of climate change on human mobility, policymakers and leaders must deepen their understanding of the complexities of the relationship. In order to address existing and evolving challenges at that nexus, the suite of proposed solutions must account for local, national, and global dynamics. They must account for and invite the full participation of the most affected—and typically least culpable—communities when developing responses. There will be no one-size-fits-all solution to these challenges given dramatically different local contexts and fluid geopolitical complexities. An array of interventions will be necessary to target the various dimensions of this nexus. Without proposing specific solutions, we offer a number of guiding principles that policymakers should consider:

Whenever possible, prevent or limit displacement associated with climate hazards.

The first principle, one conjoined with the goal of aggressively mitigating the worst climate impacts, is to enable people to remain in their homes when they desire to do so, thus diminishing the scale of forced migration. People displaced and uprooted by the climate emergency may lose access to their livelihoods, face human rights violations, and see their vulnerabilities increase. Supporting people’s capacity to remain in place—as an alternative to migration—when climate change dramatically alters their homes requires mitigating climate change through fast and drastic emissions reduction in line with the Paris Agreement. It also requires supporting locally-driven resilience and adaptation strategies to cope with worsening climate hazards, addressing loss and damage and the inequitable burdens facing vulnerable communities, and enhancing the availability of climate finance for those on the frontlines of the climate crisis.

Protect the rights of affected communities and people on the move.

All people, independent of their mobility status, are entitled to fundamental human rights in the climate emergency. The ways in which climate change affects the rights of exposed communities—including the rights to a healthy environment, decent housing, water, and life—require corrective action from responsible parties. At the same time, when people leave their homes, whether forced or not, they may become even more exposed to climate risks and human rights violations. These situations can affect people differently according to gender, race/ethnicity, age, education, economic status, indigeneity, and other characteristics, putting groups that are already structurally disadvantaged at higher risk. Internally displaced persons, internal migrants, and people moving across borders in contexts of disasters must have access to humanitarian assistance, protection, and development support that allows for the full realization of their human rights.
Enable safe, regular, and orderly migration pathways that promote human dignity and climate justice.

While many people prefer not to move, the impacts of climate change on other socioeconomic forces make that choice hard or impossible for many others. For people who see no option but to leave their homes, policymakers must ensure the availability of safe and orderly internal and international migration pathways that provide options against climate impacts. Certain forms of mobility—such as evacuations, planned relocation, and labor migration—can make positive contributions to reducing exposure and vulnerability. Yet they can also present challenges when not well designed. Efforts must be deployed to establish functional and adequate frameworks to leverage the positive impacts of mobility on migrants and sending and receiving communities and to prevent harm.

“Climate Justice advocates should: (1) highlight climate-induced displacement and migration domestically and globally that impacts those least responsible; (2) clarify the moral imperative for action; (3) launch a campaign focused on the struggle for survival of vulnerable populations; and (4) offer a plan developed with the most affected.”

Peggy Shepard
Executive Director
WE ACT for Environmental Justice
“We need to take an all-of-the-above approach to addressing climate-driven migration—we must slow the increase in earth’s temperature; focus on resilience by preparing for climate-related disasters, particularly among marginalized communities; and adapt in cases where climate impacts are irreversible. When resilience and adaptation are not possible, we need to think globally about how we can provide safe harbor for people who can no longer live in a certain place. Additionally, not addressing this challenge means that the United States is putting itself at a geopolitical disadvantage vis-à-vis its adversaries.”

Michael Chertoff
U.S. Secretary of Homeland Security
(2005–2009)

“We should develop legal and policy frameworks that assist people to remain in place, where this is possible and desirable; move elsewhere, in anticipation of harm; and be protected and assisted if they are displaced. At all times, people’s dignity, human rights, and safety must be paramount considerations.”

Jane McAdam
Scientia Professor of Law & Director
Andrew & Renata Kaldor Centre for International Refuge Law at UNSW

“Cities in the Global South bear the disproportionate impact of climate change, where severe disasters and extreme conditions drive human displacement. In Barranquilla, Colombia, our efforts are targeted at empowering climate-displaced people via income-generating tools and training, while piloting long-term solutions to improve climate resilience in high-risk hot spots that are prone to flooding and landslides.”

Jaime Pumarejo
Mayor of Barranquilla, Colombia
(2020–)
It is abundantly clear that climate change plays an ever-increasing role in accelerating internal displacement and cross-border movement. Some legal and policy mechanisms are available to safeguard the rights of people on the move in this context, but they are not yet sufficiently reflected in either international law or within most domestic migration policies.

International

While there is no specific binding international convention addressing human mobility in the context of climate change, a number of areas of law already contain relevant principles, starting with human rights law, which applies to all people regardless of their situation and migratory status.

Internal disaster displacement is addressed in the 1998 Guiding Principles on Internal Displacements. The role of disaster risk reduction is further detailed in the Sendai Framework for Disaster Risk Reduction (2015–2030). In the intersection between disaster risk reduction and migration policies, the 2015 Protection Agenda of the Nansen Initiative provides a non-binding blueprint to enhance protection for people displaced across borders in the context of climate change and disasters.

The humanitarian system is an important framework to guide responses for persons affected by disasters, notably in terms of humanitarian assistance and camp coordination and camp management, among other sectors.

National

In the national context, some countries have sought to address human mobility driven by climate change within their laws and policies.

Some state efforts have included increasing opportunities for temporary protection in the wake of climate disasters, broadening parameters for labor migration, or applying existing refugee law—which does not explicitly recognize a right to protection on account of climate displacement—in relevant circumstances. Other countries' efforts include facilitating the planned relocation of populations in high-risk areas, leveraging the positive contributions of migrants and the diaspora, or integrating human mobility in climate change adaptation plans, among others.
The sovereign legal status and rights of Indigenous people require governments to expand their responsibilities and perspectives regarding climate migration. Those preexisting reserved rights must be retained in development of a comprehensive climate-action approach that addresses the humanitarian issues of displaced populations while not adversely impacting Indigenous communities.

Climate change is becoming increasingly important as a cause of migration and displacement. To meet this challenge, we need to increase the pace of investments that prevent displacement, build resilience, and increase the capacities of host communities. Within this context, financing local governments, and helping them to build capacity, is essential to help people affected by climate to move with safety and dignity.