Migration as a response to climate change has always been a part of human history, and its importance as a means of diversifying livelihoods and protecting against disasters is set to increase as climate change damages continue to mount. Going forward, migration and migrant communities could play an important role in climate adaptation, provided sound policy for climate-induced mobility is put in place. This policy brief looks at the potential role of migration and already established migrants in supporting climate adaptation in countries of origin.

What role for migration and migrants in climate adaptation?

Key Findings

- The relationship between climate change and human mobility is complex and non-linear, with multiple and interacting factors shaping migration responses. Whether a person can move or is stuck largely depends on their financial means and natural disaster preparedness, among other things.
- While migration can be an important means of adapting to climate change, current pathways for migrants and displaced populations remain limited. It is therefore crucial to develop and expand complementary and humanitarian pathways to address the current and future challenges of climate-induced migration and displacement.
- Labour migration schemes and talent and skills partnership programmes can offer inventive solutions in providing employment for individuals displaced by climate disasters, aligning their proficiencies with the transitioning economy.
- Diaspora investment and remittance policies have the potential to direct, maximise and leverage remittances and skill transfers from overseas community members in the event of lost income. Furthermore, they can facilitate long-term investment in green technologies.
- International cooperation has already helped to scale-up existing agreements, such as the IGAD Protocol on the Free Movement of Persons in East Africa or the Compacts of Free Associations.
- The development of new data sources and tools to anticipate future migration flows, such as early warning systems, modelling and programming tools or foresight methodologies, will be crucial to increase preparedness and developing adequate policy responses.

Introduction

Migration and displacement\(^1\) as a response to extreme weather conditions and their indirect impacts is not a new phenomenon. Historically, climate factors have played a significant role in population movements (de Sherbinin, 2020\(^1\); Cattaneo et al., 2019\(^2\)). Changing global climate patterns are already having, and will increasingly have, an impact on migration patterns. On average, more than 20 million people a year are already internally displaced by climate-related events (IPCC, 2022\(^3\)). The relationship between human mobility\(^2\) and climate change is yet complex and

\(^{1}\) Unless otherwise specified in this background, the terms migration and displacement will be used to describe cross-border and forced movements respectively.

\(^{2}\) Mobility is used in this paper as an umbrella term for all patterns of migration and displacement.
Migration as part of climate adaptation

The first part of the paper looks at the complex interplay between climate change and migration and outlines how migration can be considered as part of climate adaptation and how it complements broader climate adaptation efforts.

Climate change and migration: a complex interplay

The consequences of climate change often take place in the form of climate hazards, which can be described as weather- and climate-related events with significant and adverse impacts on human societies, economies, and natural ecosystems. Two key characteristics for defining climate hazards are the time frame of their onset, distinguishing between slow-onset and fast-onset hazards, and the direct or indirect outcomes they may have (Burzynski et al., 2022[5]). Migration can then be seen as one of many ways of responding to climate change and the risks it poses.

Assessing the exact impact of climate change on migration is complex, however, as it is only one of multiple and often compounding factors that influence migration decisions. The relationship is often non-linear, indirect, and multi-dimensional, through links to declining or more volatile agricultural incomes, shrinking livelihood opportunities, or increasing food insecurity. In line with this, there is a prevailing pattern where scarcity of resources, such as water, can exacerbate these impacts and lead to armed conflict and violence. This, in turn, heightens the risks of forced displacement (International Committee of the Red Cross, 2023[6]).

People’s ability to cope with these negative impacts also determines their level of exposure and vulnerability to climate change - and thus their ability to migrate. Exposure refers to the degree to which someone is physically or socially affected by climate change, while vulnerability represents the susceptibility of that someone to suffer harm or be adversely impacted by climate change. Communities and individuals with limited socio-economic resources therefore face greater challenges in preparing and responding to climate hazards, as they may lack the financial means to migrate and could be trapped in a cycle of vulnerability or delay their decision to migrate (Cattaneo et al., 2019[2]).

Hence, migration emerges as a critical factor that can be used as a proactive, well-planned, or sudden and emergency adaptation strategy. Migration responses can further differ in terms of duration (temporary vs. permanent), distance (short vs. long distance), and individual willingness to relocate (proactive, forced or even immobile) (de Sherbinin, 2020[1]; Cattaneo et al., 2019[2]).

Evidence to date points to migration in response to climate change mainly takes place internally or to neighbouring countries (IPCC, 2022[3]; Hoffmann et al., 2020[7]; Millock, 2015[8]; Gröschl and Steinwachs, 2016[9]; Selby and Daoust, 2021[10]), and that OECD member countries experience relatively lower impacts due to their highly urbanized populations, which exhibit reduced reliance on local environmental conditions (de Sherbinin, 2020[1]). Some model calculations assume that, until 2050, between 78 and 175 million people will be mobilised due to climate change, with more rarely, by facilitating family reunification or legal migration through other channels (OECD, 2016[4]).

The aim of this paper is to take a closer look at the role that both migration and migrant communities could play in climate adaptation, and to identify future policy options for climate-induced mobility through a combination of prevention, humanitarian and development assistance, legal and collective responses.
change, but only a minority of these will move across borders (Czaika and Münz, 2022[11]).

**Migration as climate adaptation**

Climate adaptation covers a broad range of measures taken to address climate change, considering the vulnerability and exposure of different populations. The role of migration in climate adaptation can be approached from three perspectives, as follows:

First, while migration is sometimes seen as a failure to adapt to the impacts of climate change, it can be seen as an integral part of a rational adaptation strategy for communities and individuals. In addition to protecting potentially affected communities and individuals, migration has the potential to increase resilience by facilitating livelihood diversification, promoting the transfer of valuable knowledge and skills, and reducing stress and risk factors. In this case, response in the form of migration can take various forms, including temporary, seasonal, circular, or permanent migration, depending on the severity of the situation and its impact on livelihoods and well-being (White House, 2021[12]).

Second, the use of remittances generated through the migration of individual household members can help strengthen adaptive capacity. When young people or migrants decide to move, remittances are used to diversify income sources and reduce poverty (Teye, 2022[13]; Santillian O’Shea and Olivié, 2022[14]; Ekanayake and Moslares, 2020[15]). In this case, remittances are not just found to be spent on consumption in case of productivity losses (Gemenne, 2022[16]), but long-term and more sustainable goods and services, such as education or resilient crops (Mills, 2023[17]; Adenutsi and Ahortor, 2021[18]). As further evidenced by De Bandt, Lemaire and Jacolin (2021[19]) and the International Bank for Reconstruction and Development/The World Bank (2022[20]), remittances can also be used in a variety of ways in the aftermath of disasters, such as for coping with damage and loss or even enabling migration. Migration can allow households to replace or expand income sources to ensure livelihood security, access to education, and economic well-being (Sobczak-Szelc and Fekih, 2020[21]). Remittances from temporary and seasonal migrants also play a crucial role in supporting affected communities and individuals unable to migrate, providing crisis resilience and cyclical benefits.

Third, it is important to note that the number of those seeking migration as an adaptation strategy is relatively small. Both Benveniste et al. (2022[22]) and Burzysnki et al. (2022[5]) outline how migration possibilities will largely depend on people’s socio-economic capacities. As climate change severely damages these socio-economic capacities, especially in less developed contexts, this likelihood of migration is reduced by about 35 per cent in such regions (Benveniste, Oppenheimer and Fleurbaey, 2022[22]). This gives rise to the notions of trapped populations and forced immobility, making it important to think about policies to help those who are unable to migrate (ibid.). State-facilitated relocations in such a case can be helpful, particularly where the relocation of entire communities is called for prior to a disaster.

**Migration complements alternative adaptation measures**

Against this backdrop and in the context of global efforts to address climate change, migration also complements broader climate adaptation strategies. Research indicates that households reliant on agricultural income adapt to climate change by purchasing irrigation systems, acquiring resilient agricultural technologies, or shifting to off-farm labour markets, either through self-employment or wage labour (Cattaneo et al., 2019[2]).

In addition, access to credit can enable households to cope with negative income shocks due to climate hazards and enable people to stay. Similarly, social protection and development assistance can help households and individuals overcome credit constraints and mitigate migration and displacement responses to climate change. However, the empirical evidence on the impact of credit and financial assistance on migration is mixed, and some evidence suggests that providing financial support for alternative adaptation may, under certain circumstances, encourage migration by enabling individuals to overcome liquidity constraints that previously hindered migration (Cattaneo et al., 2019[2]).
Policy areas for migration and displacement as climate adaptation

The second part of the policy brief examines policy areas that can facilitate mechanisms to address climate-induced migration and displacement. These policy areas are diversification of legal migration and humanitarian pathways, diasporas, and international cooperation.

Adapt humanitarian and complementary pathways

The available legal pathways for individuals requiring international protection are quite restricted for those who are most susceptible to the consequences of climate change. In general, asylum systems do not acknowledge the impacts of climate change as a primary basis for a legitimate claim. Resettlement programmes, while existent, are usually narrow in their reach and primarily target other forms of vulnerability. Humanitarian visas, which are implemented in just a few nations, tend to be ad hoc policy measures specifically designed to address particular circumstances.

These circumstances therefore require policies that consider scaling up humanitarian pathways and innovative best practices in the area of labour migration. Some of these are outlined below.

Humanitarian pathways

Few countries have implemented specific programmes to facilitate the temporary stay or settlement of people fleeing natural disasters. Among them is Argentina, which recently created a humanitarian visa that allows people displaced by disasters from Mexico, Central America, and the Caribbean to stay in the country for three years. Through this programme, visa holders are guaranteed housing, food and other essential support needed for their integration. For a period of one year, they can receive sponsored access to essential services such as health care, facilitated by a civil society organisation (Ministerio del Interior de Argentina/Migraciones/PDD, 2022[23]).

In Europe, Sweden, Finland, Italy, Switzerland, and France have individually granted temporary protection and relief to individuals from disaster-affected countries, allowing them to settle temporarily (McAdam, 2012[24]; Dempster, Pra and Chazalnoël, 2021[25]; OECD, 2016[20]). Notable is Italy’s Article 20 bis of Legislative Decree 286/1998 that recognizes the obligation to offer protection where returning to and staying in the home country is unsafe due to serious calamities (European Migration Network, 2023[26]). Nevertheless, some challenges remain: the lack of a precise definition of disaster, the absence of specific criteria and the reliance on case-by-case assessments may lead to inconsistent treatment of similar cases (ibid.).

In situations where the possibility of remaining in a place is no longer viable, planned relocation can present a solution for states to support vulnerable populations in moving and settling in new areas. Recognizing the inherent risks involved, the Sydney Declaration of Principles on the Protection of Persons Displaced in the context of Sea Level Rise emphasizes the importance of conducting evacuations with utmost regard for the life, dignity, liberty, and security of the evacuees (White House, 2021[12]). Governments and other stakeholders can benefit from using early warning systems and other technologies to identify situations that cross the risk threshold and make it impossible for people to remain in their current locations (ibid.). Such practices in responding to coastal hazards have been implemented in São Tomé and Príncipe, for example. Through the utilization of historical maps and active engagement with coastal communities, this initiative successfully identified the most vulnerable households, individuals, and areas highly susceptible to floods and rising sea levels (UNHCR, 2017[27]).

Labour migration and other complementary pathways for people in need of international protection

Labour migration programmes can play a crucial role in using migration as a strategy for adaptation to climate-related hazards. However, the integration of climate change considerations into temporary labour migration programmes remains limited, with some notable exceptions in the Pacific. New Zealand’s Recognised Seasonal Employer Scheme and the Pacific Australia Labour Mobility Scheme were established partly in recognition of the expected impacts of climate change and development. Both schemes aim to address labour shortages in GDP-critical industries
and promote economic development in Pacific Island countries by giving priority to workers from the region.

Another example is programmes to develop and leverage the skills of vulnerable communities and migrants. Typically, skills partnerships involve training people in countries of origin, some of whom will later migrate, while others will stay and contribute to the country of origin. Others involve matching refugee labour supply and demand, such as Talent Beyond Boundaries (TBB), which since its launch in 2016 has facilitated the matching of the skills of refugees from countries of first asylum with the needs of employers in Canada, Australia and the UK. These skills-matching and enhancement programmes can help address labour and skills shortages, while promoting cooperation and resilience in affected communities (Talent Beyond Borders, 2023[28]; International Organization Migration, 2022[29]).

Other alternative pathways could include family migration and student and private sponsorship programmes. Canada’s response to the tsunami in 2004 provided several tools to facilitate the relocation of disaster victims, including expediting Family Class applications for Canadian citizens and permanent residents sponsoring relatives affected by the disaster, considering case-by-case applications from individuals with Canadian relatives who did not qualify under Family Class, and waiving application processing fees and Permanent Residence fees for all applicants affected by the disaster (OECD, 2016[41]).

**Support diaspora and remittance policies**

Policies may harness the significant potential of migrant and diaspora communities in driving economic and social development in their countries and communities of origin, primarily by leveraging their contributions in two key areas: knowledge transfer and remittances.

One way to support knowledge transfer is to implement policies that foster project and platform development to bring together diaspora members and institutions from their countries of origin. As there is a global knowledge-action gap on climate change, partly due to different levels of knowledge, the potential role of diaspora and migrant communities in contributing to knowledge transfer and generation is significant (Knutti, 2019[30]). For example, the European Union Diaspora Facility is supporting Red Global MX UK, the UK branch of a Mexican diaspora network, to develop a citizen education toolkit on climate change and the circular economy in Mexico (European Union Global Diaspora Facility, 2022[31]).

Policies to support diaspora and remittance investments in climate adaptation and mitigation can include mechanisms like remittance pooling and crowdfunding, green diaspora bonds and climate-proof remittance mechanisms (Huckstep and Clemens, 2023[32]). In Bangladesh, where the government has been implementing restructuring plans, the influx of remittances has played a crucial role in stimulating the demand for modern renewable energy services through the Solar Homes System programme, the world’s largest national off-grid electrification initiative (Mason et al., 2022[33]).

**Strengthen international cooperation**

Policies emphasizing international cooperation can play a vital role in both scaling up and complementing existing multilateral and regional frameworks, fostering the development of reliable data sources, and facilitating the transfer of skills.

Existing international initiatives are voluntary or consultative in nature, such as Sendai Framework for Disaster Risk Reduction or the Nansen Initiative which became the Platform on Disaster Displacement (OECD, 2016[41]). In 2015, the Paris Agreement further requested the Executive Committee of the Warsaw International Mechanism for Loss and Damage to establish a Task Force on Displacement. The purpose of this Task Force was to develop recommendations for integrated approaches to preventing, minimising, and managing migration and displacement caused by the adverse effects of climate change. This strategic work stream, which is currently in its second phase, aims to gain a better understanding of the impacts of climate change on climate-induced mobility in order to ensure its contribution to the National Adaptation Plans and Nationally Determined Contributions (UNFCCC, 2023[34]).

Multilateral agreements focusing on displacement and migration will thus be crucial in response to climate-induced mobility. The Global Compact on
Migration (GCM) is one of the agreements that aim to facilitate global cooperation; another is the Intergovernmental Authority on Development (IGAD) Protocol on the Free Movement of Persons in East Africa, the first protocol to address the specific needs of people affected by disasters and ensure their right to move freely. Article 16 of the protocol requires member states to enable the entry and residence of individuals who relocate in expectation of, during, or after a catastrophe (Brenn et al., 2022[35]).

Policies can further enhance international cooperation in the development of new data sources and tools to anticipate future migration flows, such as early warning systems, modelling and programming tools or foresight methodologies. This will help governments to better understand and prepare for future migration patterns and to develop effective policies to address the needs of displaced people.

Last but not least, policy makers may consider the role of joint international, regional, and bilateral policies in the context of displacement and migration to urban areas. Initiatives like the Mayors Migration Council (MMC) empower civil society and communities by providing them with access, capacity, knowledge, and connections to engage in migration and climate change policymaking at the international, regional, and national levels (White House, 2021[12]). This includes sharing best practices on climate adaptation measures, as well as harnessing the expertise of diaspora communities and their countries of origin. By fostering these collaborations, cities and urban areas can become hubs of innovation, resilience, and sustainable development, effectively addressing the intertwined challenges of migration, displacement, and climate change.

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