People on the Move in a Changing Climate – Linking Policy, Evidence and Action



IOM is committed to the principle that humane and orderly migration benefits migrants and society. As an intergovernmental organization, IOM acts with its partners in the international community to: assist in meeting the operational challenges of migration; advance understanding of migration issues; encourage social and economic development through migration; and uphold the human dignity and well-being of migrants.

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Cover photo: Nika, mayor of the remote outer atoll of Likiep, Marshall Islands, says "It's really sad to see it. We are facing droughts and it makes it so difficult for us to grow our traditional foods like breadfruit. You can see from the distance that the sea is covering the land and pretty soon we will not be able to grow there. I am a strong believer of 'if there's a will, there's a way' because we don't want to lose our land, we want to protect it by any means available to us." © IOM 2019/Muse Mohammed

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Linking Policy, Evidence and Action



Flood affected areas in Jacobabad, Pakistan. © IOM 2022/Usman Ghani



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It is not the first time for Ahmed to suffer from a period of drought. In 2011 and 2017, Somalia experienced two extreme drought crises. Experts warn water scarcity is the most severe in the last 40 years. Ahmed and his children are seeing it unfold in front of them. © IOM 2022/Ismail Salad Osman

SUMMARY

Climate change, environmental degradation and disasters are reshaping contemporary human mobility patterns around the world.¹ An extensive array of international agreements and frameworks attest to the urgency of addressing climate change and human mobility together. Linkages between the two have been explicitly made in the context of the United Nations Framework Convention on Climate Change (UNFCCC), notably the Paris Agreement, in the Sendai Framework for Disaster Risk Reduction and in the main migration frameworks, such as the Global Compact for Safe, Orderly and Regular Migration.

The international agreements provide a starting point. It is time to act on human mobility in contexts of climate change. Drawing on existing knowledge and IOM's experience of working with governments, other UN agencies and partners at different levels, this paper charts a path forward based on the three strategic objectives identified in the IOM Institutional Strategy on Migration, Environment and Climate Change 2021–2030.

1. Solutions for People to Move - Enabling safe and regular migration.

Both internal mobility and safe, orderly and regular international migration between countries can be used as strategies to adapt to climate change. Governments can prepare for future migration by ensuring that urban centres are able to accommodate newly arriving populations and that those on the move have the skills to access fair and dignified labour roles, as well as establishing pathways for safe and regular migration internationally.

2. Solutions for People on the Move - From anticipatory action to enabling solutions to minimize and better address loss and damage, including displacement.

This requires increased preparedness and anticipation to minimize and better address loss and damage, including displacement. Governments must prepare for the scale, scope and frequency of future disasters. Emergency preparedness and response are also essential to minimize and address displacement when disaster risk reduction and climate change adaptation are not sufficient, involving comprehensive humanitarian programming.

3. Solutions for People to Stay - Disaster risk reduction and in situ adaptation to avert and minimize displacement.

This refers to localized measures to avert and minimize displacement. It involves building community resilience and promoting climate-resilient development, while addressing the drivers of forced movement. Integrated approaches across a range of areas can strengthen the developmental benefits for communities and areas of origin of people who do move, in line with the 2030 Agenda.

Achieving these solutions requires broad-based partnerships across different thematic areas, at local, regional, national and international levels, and along the Humanitarian, Development and Peace Nexus (HDPN), as well as evidence-based policymaking and action drawing on reliable data, rigorous analysis and research. Targeted approaches for specific vulnerable groups and communities are also crucial. An overview of these approaches as well as actions to take forward the three recommended solutions to addressing human mobility in contexts of climate change is provided overleaf.

Limiting the global temperature rise to well below 1.5°C is vital to avoid irreversible future changes to the planet. But alongside this, investments are also required to increase the ability of individuals, households and communities to adapt to the already occurring impacts of climate change. Migration is one such adaptation strategy.

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¹ Climate change, environmental degradation and disasters are processes related to sudden onset events such as flooding, droughts and extreme weather, slow onset events such as desertification, coastal erosion, sea-level rise and non-climate related events and processes such as earthquakes and volcanic activity. In many cases these processes are closely interlinked with human-induced changes in the global climate system. For simplicity, throughout this report we refer to climate change as shorthand for all of these processes.

partnerships

Broad-based

TOWARDS A BETTER FUTURE: RECOMMENDATIONS FOR POLICYMAKERS

CROSS-CUTTING APPROACHES

Evidence-based policymaking and action



 Integrate human mobility in national policies and plans on climate change, disaster risk reduction and development

 Regularize migrants who are in an irregular situation in the context of disasters, in line with national laws

 Develop and roll out targeted skills training in climate change-affected communities to support better migration outcomes

 Develop regular migration pathways from climate vulnerable regions and disaster-prone areas

 Develop and implement regional or bilateral transhumance frameworks to allow people to move, while facilitating livelihoods

- Develop/update frameworks for planned relocation in a rights-based and participatory manner as a last resort option
- Develop and implement regional, free movement protocols and frameworks that allow people to move across borders
- Provide access to service and integration support to people who cannot return to the country/area of origin

 Integrate climate risks into humanitarian response plans and programming to ensure response to climate-related displacement

PROVIDE SOLUTIONS

2. for people on the move

ACTIONS

- Ensure principled humanitarian response and protection for disaster displaced persons
- Factor in current disaster risk and future climate change impacts in human mobility programming for emergency preparedness, disaster risk reduction and climate change adaptation
- Facilitate the participation of migrants, displaced persons, diasporas and communities, especially the most vulnerable, in all climate actions
- Grant, expedite, or waive visas and other entry requirements in situations of disasters
- Develop and implement non-return policies to avoid return to countries experiencing disasters
- Use the learning from the humanitarian assistance phase to inform early recovery, development and adaptation programming
- Promote and roll out durable solutions for disaster displacement

Factor in current disaster risk and future climate change impacts in human mobility programming for emergency preparedness, disaster risk reduction and climate change adaptation

3. for people to stay

- Facilitate the participation of migrants, displaced persons, diasporas and communities, especially the most vulnerable, in all climate actions
- Identify gaps and priorities in local disaster risk reduction capacities and strengthen systems and policies to prevent and respond to future crises
- Facilitate the reintegration of returning migrants via "green reintegration" packages for climate change adaptation and mitigation
- Develop climate resilient infrastructure in the face of natural hazards or in post-crisis reconstruction
- Develop sustainable climate resilient livelihoods for populations at risk to support adaptation





INTRODUCTION

United Nations (UN) Secretary-General António Guterres has warned "We are sleepwalking to climate catastrophe" (UN, 2022a). Climate change, environmental degradation and disasters² are impacting on human life around the world and affecting contemporary migration dynamics. In 2021 alone, there were 23.7 million new displacements related to disasters, 22.3 million of which were due to weather-related phenomena such as storms, floods and droughts (IDMC, 2022). These impacts are expected to increase. Recent estimates for six world regions suggest that, unless action is taken, up to 216 million people could move internally within their countries by 2050 (World Bank, 2021). Against this backdrop, International Organization for Migration (IOM) Director General António Vitorino has stated "the adverse impacts of climate change are shaping migration patterns everywhere ... The international community can no longer implement migration and development policy without considering the impacts of climate change" (IOM, 2019a).

Solid foundations have been laid to guide multilateral cooperation and policy on climate change and human mobility. Linkages between the two have been repeatedly recognized by States. This includes explicit references in the context of UNFCCC (such as the 2010 Cancun Adaptation Framework, the 2015 Paris Agreement, the 2021 Glasgow Pact, and the ongoing work of the Task Force on Displacement under the Warsaw International Mechanism for Loss

and Damage), the Sendai Framework for Disaster Risk Reduction, and the key global migration policy processes (the Global Compact for Safe, Orderly and Regular Migration and the 2022 International Migration Review Forum Progress Declaration). Other processes and agreements, such as the 2030 Agenda and the Sustainable Development Goals, the United Nations Convention to Combat Desertification, the Agenda for the Protection of Cross-Border Displaced Persons in the Context of Disasters and Climate Change, and the UN Secretary-General's Agenda on Internal Displacement have all also included references to human mobility and climate change. Many regional agreements and frameworks are even more advanced and have often preceded and informed global policy achievements, highlighting States' political will to work together.³ At the same time, many governments still lack measures to effectively address human mobility related to climate change.4

Now is the time to step-up implementation on human mobility in contexts of climate change. It is time to accelerate action and put the agreements made in the context of climate negotiations, disaster risk reduction, migration governance and other relevant processes into practice. As set out in the Paris Agreement and in line with the International Panel on Climate Change (IPCC, 2018), holding the increase in the global average temperature to below 1.5°C is vital to avoid irreversible future changes to the planet. But alongside this, investments are also

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² See footnote 1.

³ Examples include migration management agreements which refer to environmental drivers, such as free movement protocols (e.g. in ECOWAS, IGAD, Central America-4 group, the European Union), transhumance agreements (e.g. in ECOWAS and IGAD), refugee and IDP protection conventions (e.g. Kampala Convention, OAU Convention, Cartagena Convention). They also include specialized policies, guidelines and declarations, such as the Kampala Ministerial Declaration on Migration, Environment and Climate Change, regional guidelines in Central America and South America, and the Pacific Regional Framework, among others.

For example, data collected through the Migration Governance Indicators (MGI) shows a gap in strategic and contingency planning in terms of inclusion of human mobility linked to climate change. The MGI programme is a tool that was developed in 2016 by IOM. It supports governments to take stock of the comprehensiveness of their migration policies and to identify gaps and areas that could be strengthened. Since its inception, 92 national governments and 51 local governments have participated in the process. The indicator framework contains a number of indicators related to climate change and disaster risk reduction. Eighty-four countries were surveyed for the publication Migration Governance Indicators Data and the Global Compact for Safe, Orderly and Regular Migration: A Baseline Report (IOM, 2022c). Only 20 per cent of these countries had strategies in place to address migration linked to environmental degradation and climate change; 43 per cent had a contingency plan to manage large-scale population movements in times of crisis, and 33 per cent had a disaster risk reduction strategy with provisions for preventing and addressing the displacement impacts of disasters.

required to strengthen the ability of individuals, households and communities to adapt to the already occurring impacts of climate change. Migration is one such adaptation strategy. International fora, including the Conference of the Parties (COP) of the UNFCCC, offer one arena to build momentum and, as is the vision of Egypt's COP27 presidency, "to move from negotiations and planning to implementation" (COP27, 2022). They must be matched with action on the ground in national and local contexts. Drawing on existing knowledge and IOM's experience of working with governments, other UN agencies and partners at global, regional, national and local level, this paper highlights the main aspects of human mobility in contexts of climate change from a policy perspective and charts a path forward based on recommendations and practical examples to guide future action.

Key facts and figures

During the past 10 years, storms, floods, droughts and other weather-related disasters have caused an average of 21.6 million annual displacements worldwide (IDMC, 2022). These occur in all parts of the world but are unequally distributed. Over 60 per cent of events are recorded in the Middle East, North Africa, East Asia and the Pacific (ibid.).

By 2030, an estimated 50 per cent of the world's population will live in coastal areas exposed to flooding, storms and tsunamis. These are expected to increase in frequency and magnitude in many regions, raising the risk of future displacement. Depending on future emission and demographic pathways, sea-level rise is projected to force the displacement of tens to hundreds of millions of people by 2100 (IPCC, 2022a).

Under a 2°C warming scenario, 37 per cent of the global population will regularly experience severe heat, and more than 350 million people will be exposed to uninhabitable temperatures by 2050 (UN-Habitat, n.d.). The main driver for increased heat exposure is the combination of global warming and population growth in already-warm centres; the majority of the population exposed to heatwaves will live in urban centres (IPCC, 2022b, p. 909).

The direct effects of climate change, combined with secondary impacts such as declining agricultural productivity, are estimated to cause the internal migration of 44–216 million persons by 2050, depending on the emission scenario (World Bank, 2021). Most of that will go to urban areas. An additional 2.5 billion people are projected to be living in urban areas by 2050, with up to 90 per cent of this increase concentrated in the regions of Asia and Africa (IPCC, 2022b, p. 909).

Climate impacts on mobility will vary for different places and social groups. In particular, it will inhibit the capacity of the poorest to migrate. For example, in sub-Saharan Africa, between 17 and 86 million people could migrate internally by 2050 (IPCC, 2022c). In this region, forecasts suggest a decrease in the number of emigrants from the lowest-income quintile by up to 9 per cent by 2100 (Benveniste et al., 2022).

Projections of when and where persons will be exposed to climate-related hazards, including floods and heatwaves, are becoming increasingly precise. But estimates of the number of migrants that will be generated by these events remain subject to high uncertainty. This is due not only to potential changes in future emission levels, but also to how different climate change scenarios will impact human mobility. This is especially the case at the international level, given that most climate-related migration and displacement currently occurs within countries.



UNDERSTANDING THE CLIMATE CHANGE– MIGRATION NEXUS

The relationship between climate change and human mobility is complex and varied. Climate change triggers and intensifies a range of processes, including sudden-onset hazards such as flooding and storms, and slow-onset environmental change such as, but not limited to, desertification, coastal erosion, sea-level rise and ecosystem loss. These have an adverse effect on the sustainable development of regions, countries and communities, exacerbating inequality gaps and pushing climate vulnerable communities further into poverty. The implications of climate change for human mobility vary according to the ways that climate and environmental changes interact with the multiple drivers of migration, for different social groups, in particular times and places (see Figure 1). Many of the socioeconomic factors which lead to vulnerability to climate change and are exacerbated by its impacts, such as inequality and a lack of employment opportunities, can also act as drivers for human mobility. Existing evidence also shows that both sudden- and slow-onset environmental changes impact on human mobility within and across international borders (Traore Chazalnoël and Randall, 2021). These movements can be temporary, as is the case of seasonal and circular migration, or permanent, such as through planned relocation, and involve an individual, a household or a whole community.

While reliable projections are hard to come by, the overall trend is clear. **People are already moving and most of this climate-related mobility is currently taking place within countries** (IPCC, 2022a). Large-scale rural to urban movements are driving rapid growth of the worlds' cities, often fueled by the detrimental impact of the changing climate on rural livelihoods. The scale of these changes will depend, inter alia, on which of the climate change scenarios put forward by the IPCC materialize.

For many, deciding to move can be a positive adaptation strategy. Indeed, many households already use migration as a strategy to increase preparedness for future hazards and the 2030 Agenda already recognizes the positive contribution of migrants for inclusive growth and sustainable development. For individuals and households, migration can diversify livelihood options by providing access to new employment opportunities and markets, enabling people to send remittances and facilitate the transfer of knowledge and skills through diaspora networks or upon return (Oakes et al., 2020). At a societal level, these processes can increase resilience and be a powerful driver of sustainable development by providing resources to families and communities to cope with the impact of environmental challenges on their livelihoods.

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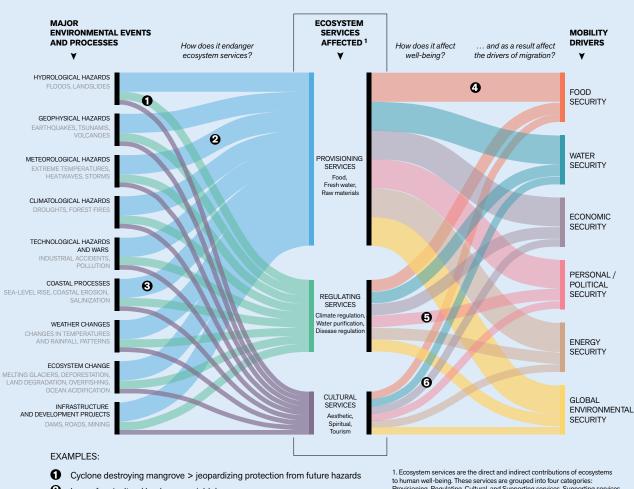


Figure 1: Interactions between climate and environmental changes and multiple drivers of mobility

2 Loss of agricultural land > crop yield decrease

- Sea-level rise and salt-water intrusion > freshwater resources affected
- 4 Loss of crops > famine and malnutrition
- **6** Epidemics > public health risks (and potential social unrest)
- 6 Tourism affected > job losses

Ecosystem services are the direct and indirect contributions of ecosystems to human well-being. These services are grouped into four categories: Provisioning, Regulating, Cultural, and Supporting services. Supporting services, as overarching services, are not represented in this diagram.

The arrows' width does not represent an exact number (this is a conceptual diagram).

Source: Millennium Ecosystem Assessment (2005) © IOM (Mokhnacheva, Ionesco), Gemenne, Zoï Environment Network, 2015

Human mobility as adaptation

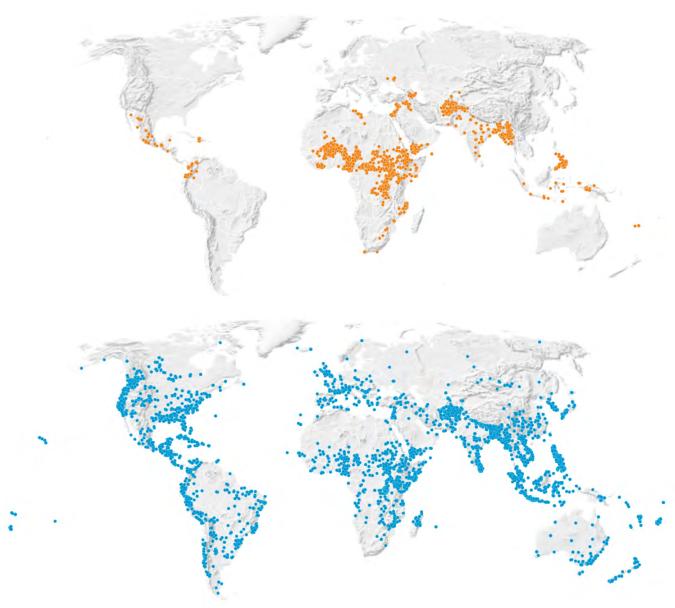
Climate change impacts will undermine and threaten sustainable development efforts, and people in climate-vulnerable communities will be the hardest hit. Adaptation is a way to respond to such challenges. Adaptation has been defined by the UNFCCC as "adjustments in ecological, social, or economic systems in response to actual or expected climatic stimuli and their effects or impacts" (UNFCCC, n.d.). These can include setting up early warning systems for disasters, switching to drought-resistant crops, redesigning communication systems, securing power supplies and developing government policies.

Evidence attests to the effectiveness of human mobility as an adaptation strategy. The IPCC notes that human mobility "can be interpreted as impacts on vulnerable peoples, but also as adaptation strategies to manage risks and reduce exposure when people continue with their lives, temporary or permanently, in a different but stable situation, or when family members send remittances to those that remain in the affected areas" (IPCC, 2022d). In Central America, disasters are often a tipping point for people who move away, within a pre-existing context of environmental degradation, poor living conditions, restricted livelihoods and development gaps. A recent IOM study recommends introducing measures that promote rural to urban mobility to help provide rural communities with the skills they need to access urban jobs (IOM, 2021a). Circular migration has been used as a coping mechanism following disasters in Belize and in the context of longer-term environmental degradation in Mexico (Cascone et al., 2016). Planned relocation is also sometimes used to adapt to the changes in climate, such as for at-risk communities in the Pacific (Bower and Weerasinghe, 2021). However, this practice can have significant implications for human rights and the well-being of individuals and communities. It should only be used as a last resort and in close partnership with the affected communities.

Others, however, move because they have no other choice. In these situations, **moving away from a disaster zone can be lifesaving**. The IPCC has concluded that "climate hazards associated with extreme events and variability act as direct drivers of involuntary migration and displacement and as indirect drivers through deteriorating climatesensitive livelihoods" (IPCC, 2022a, p.52). As can be seen in Figure 2, no location is immune from disaster displacement. Whereas conflict displacements affected 42 countries in 2020, disaster displacement affected 142 in the same year. Although disasters do not tend to lead to protracted displacement to the same extent that conflicts do, as extreme weather events become more frequent and severe, especially under high-emission scenarios, there is an increased chance that disaster displacements also become more protracted or lead to repeated displacements over time (IPCC, 2022a). In such contexts it will be increasingly important to join up humanitarian assistance with longer-term development processes. 8



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Source: IDMC, 2021.

Note: This map is for illustration purposes only. The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the International Organization for Migration.

The UN Secretary-General's Action Agenda on Internal Displacement²⁰ also recognizes climate change as a risk multiplier that can increase the dangers faced by displaced people and hinder efforts to provide assistance and solutions (UN, 2022b). The implications of climate change are particularly severe for the poorest areas of the world, and for more vulnerable population groups such as women and children. If not well-managed, these increased dangers threaten to reverse development gains. Evidence also shows that in many cases it is not easy to distinguish between voluntary or forced migration in contexts of climate change, such as when people move in search of economic opportunities because years of drought or a sudden typhoon have decimated their crops and their livelihoods. **Human mobility related to climate change should be considered on a spectrum from voluntary forms of movement to displacement.** This presents challenges for governments, as they must respond to mobility of diverse populations with varied reasons and resources for moving. A related important but complex issue is the link between climate change and conflict, especially when considered in relation to human mobility. As the discourse on these issues is often politicized, it is important to underline that existing evidence concerning the relationship between climate-related risks, migration and conflict is inconclusive and indicates that the linkages are indirect and contextdependent. Finally, many people will also be unable to migrate.

Migration requires economic and other resources. Not everyone is able to access them. In many regions, climate change is likely to increase immobility amongst lowest-income groups (Benveniste et al., 2022). Vulnerable and socially marginalized groups are less likely to have the necessary resources required to move. As a result, they are more likely to become "trapped" or "immobile" with little alternative but to bear the brunt of climate change impacts.

Migrants' testimony - On the move in a changing climate

Migrants' testimony: migration in the context of slow-onset events can take different forms...

"My grandfather, father and I have worked these lands. But times have changed ... "The rain is coming later now, so that we produce less. The only solution is to go away, at least for a while. Each year I'm working for 3 to 5 months in Wyoming. That's my main source of income. But leaving my village forever? No. I was raised here and here I will stay." When people move as a way of coping the livelihood consequences of altered rainfall, they often engage in a pattern of circular or seasonal migration, moving repeatedly between different locations rather than making one permanent move. The goal of this pattern of migration is to replace lost income during periods of rainfall irregularity, but to maintain connections with family and community who have stayed behind.

Context:

This testimony was collected by the EACH-FOR research programme. The interviewee is describing the situation in rural Mexico and his migration to the United States.

Sources: Afifi et al., 2012; Brzoska and Fröhlich, 2016.

...and result in different outcomes:

"I moved to a nearby market town to sell products. The town was five hours away [walking].. I also worked as a carpenter in the town. When the rain came, I would return to farm... But because of my absence, my wife wasn't able to sustain the farming work by herself. So at one point, when it hadn't rained for a long time, the whole family decided to move to the market town." When people move in order to cope with lost income they rarely cross international borders. People often move the shortest distance possible to find alternative work.

In this case we can see that the family did not initially move together. One family member moved first, but as the situation deteriorated the whole family moved to the new location.

Context:

This testimony was recorded as part of the research project carried out by UNHCR and the United Nations University. Researchers spoke to refugees and IDPs living in camps across East Africa about the causes of their displacement.

Sources: Afifi et al., 2012; Brzoska and Fröhlich, 2016.

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A young girl living within the Bakasi IDP Camp in north-eastern Nigeria. © IOM 2016/Muse Mohammed



AN OPPORTUNITY FOR A BETTER FUTURE

IOM is committed to supporting inclusive multilateral collaboration and developing innovative migration responses that can make humane and orderly migration part of the solution to address the climate emergency. This draws on almost three decades of experience working on climate change, environmental degradation, disasters and human mobility in policy, research and operational activities. It spans from the first publication on this issue in 1992⁵ to the establishment of a dedicated Migration, Environment and Climate Change (MECC) Division in 2015 and the finalization of an Institutional Strategy on Migration, Environment and Climate Change for 2021–2030.⁶

Building on its experience and working in partnership with multiple stakeholders, IOM has identified the key vectors of action for the international community with respect to human mobility and climate change. The goal is to increase the scope of options available to the individuals, households and communities affected by climate change, including the most vulnerable. Doing so supports migration as an adaptation to climate change. This includes ensuring that those who choose to move can do so in a safe, orderly and regular manner whilst promoting the positive impacts of their mobility for themselves, their families and communities of origin and destination. It also involves providing assistance to those who are displaced, measures to reduce forced displacement and options to stay in a dignified manner.

These considerations are captured in three strategic objectives, identified by IOM in the Institutional Strategy (IOM, 2021b). This strategy aims to guide joint work with a wide range of actors, including through the UN Network on Migration⁷ and the Warsaw International Mechanism Task Force on Displacement, and to address needs, challenges and opportunities observed on the ground. The development and implementation of solutions aligned with these strategic objectives can bring about transformational changes for societies, individuals on the move and their communities across the world:

- Solutions for people to move by managing human mobility in the context of climate change, environmental degradation and disasters due to natural hazards.
- Solutions for people on the move by assisting and protecting migrants and displaced persons in the context of climate change, environmental degradation and disasters due to natural hazards.
- 3. Solutions for people to stay by building resilience and addressing the adverse climatic and environmental drivers that compel people to move, making migration a choice and not a necessity.

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⁵ IOM (1992) states "Large numbers of people are moving as a result of environmental degradation that has increased dramatically in recent years. The number of such migrants could rise substantially as larger areas of the earth become uninhabitable as a result of climate change."

⁶ IOM's Institutional Strategy on Migration, Environment and Climate Change 2021–2030 outlines IOM's vision on the climate change-migration nexus and how the Organization can support its Member States develop and implement contextualized solutions (see IOM, 2021b). It has been developed through an extensive internal and external consultative process based on surveys, joint consultations and individual interviews with Member States, UN agencies, civil society, academia and other partners. The Strategy also benefited from the results of the Evaluation of IOM's Institutional Response to Address Migration, Environment and Climate Change Nexus (IOM, 2021d).

⁷ The United Nations Network on Migration was established to ensure effective, timely and coordinated system-wide support to Member States in the implementation, follow-up and review of the Global Compact for Safe, Orderly and Regular Migration, coordinated by IOM Director General. To bolster a common UN system approach to the topic, the Network's workplan features a thematic priority Migration in the Context of Disasters, Climate Change and Environmental Degradation (United Nations Network on Migration, 2021).

Achieving these solutions to respond to immediate needs while contributing to sustainable development and building resilient and peaceful societies necessitates a paradigm shift in the way of working. Three key approaches should underpin these efforts:

Firstly, there is a need for **broad-based partnerships**. Effective solutions should be developed and operationalized across different thematic areas, at local, regional, national and international levels, and along the HDPN. They should also bring together migrants and communities as well as non-governmental and private sector actors. This requires joint engagement on issues ranging from climate action,

disaster risk reduction, and migration governance to sustainable development, peacebuilding, human rights, health and urbanization, as well as an awareness of how migration interacts with other forms of climate adaptation.

Secondly, **evidence-based policymaking and action** are critical. The interplay between migration and climate change is as important as it is complex and politically charged. It is essential that the starting point for policymakers working on this nexus is based on reliable data, rigorous analysis and research. This is particularly so in a context of rising disinformation on migration and migrants over recent years.

Improving the use of data for evidence-based policies and action

At the conceptual level, the multiple, interrelated drivers of human mobility (social, demographic, economic, political) make it difficult to quantify the extent to which climate change drives migration. It is especially difficult to capture the impact of slow-onset processes, as these occur over a long timescale and are deeply intertwined with demographic, economic and social change. At the methodological level, data related to disaster displacement is mostly collected locally, with a lack of consistent data collection standards across countries.

A prerequisite for a better understanding of human mobility in the context of climate change is improved collection, use and analysis of migration and displacement data in line with international guidelines.⁸ Improvements could be made both by ensuring interoperability of already existing data systems, and by collecting new data through specific questions added to censuses, surveys, and other data collection mechanisms.

International partnerships can also advance data innovation. For example, partnering with the private sector offers access to innovative sources of information, such as data generated by mobile phone users before, during and after disasters. If accessed and used in a responsible way and in line with all relevant data protection requirements, this can be a useful source of information supporting the prompt delivery of targeted assistance. Non-traditional data sources, such as satellite images or social media data, can also be used to identify environmental stressors that could lead to future displacement.⁹

Thirdly, **targeted approaches** for specific groups and communities with a **focus on the most vulnerable** are vital. Ensuring that no one is left behind requires paying particular attention to the groups that are most vulnerable and have limited adaptive capacity, including fewer options to move in a safe manner. This includes women, youth, children, the elderly, persons with disabilities and marginalized groups. Successful interventions should be based on protection and human rights principles, as outlined in the UN Secretary-General's Call to Action for Human Rights.

⁸ See The United Nations Secretary-General's Action Agenda (UN, 2022b).

⁹ The IOM Migration Data Strategy 2020–2025 (IOM, 2021e), which maps out IOM's priorities with respect to migration data, outlines a set of concrete deliverables to move forward in these and other areas to enhance the availability and promote use of data to achieve stronger governance outcomes and positive impacts for migrants and societies. This includes efforts to strengthen the global evidence base on the climate change and human mobility nexus.

Women and youth on the move in a changing climate

Evidence shows how climate change can have different implications for particular social groups. Women and young people are often particularly exposed (Traore Chazalnoël et al., 2020). Half a billion children live in extremely high flood occurrence zones and nearly 160 million children live in areas experiencing high or extremely high drought severity. Women and young people are often disadvantaged in terms of land ownership, having a sustainable income, and being able to access opportunities that could increase their resilience to climate change. Women and girls are also more likely to die in disasters when compared with men.¹⁰ Against this backdrop, in 2022, UNICEF, IOM, Georgetown University and the United Nations University released Guiding Principles for Children on the Move in the Context of Climate Change to set out how States can protect and empower children on the move in the context of climate change (UNICEF et al., 2022).

However, women and youth are also powerful agents of change when it comes to promoting climate action, disaster risk reduction and resilience building. Empowering them to fully participate in decision-making is crucial. Youth voices and ideas are at the forefront of climate action, for instance through the first Youth4Climate Manifesto.¹¹ In Yemen, women's local leadership and participation have facilitated the development of solutions to a decades-long conflict over water access through gender-inclusive, peaceful dialogue and mediation (IOM, 2019b). In Tajikistan, women are key to climate adaptation strategies in communities of origin as they manage household assets while their partners are working abroad. IOM and the Government of Tajikistan are providing training on climate change adaptation and financial literacy and management to support women who remain behind to channel their remittances into climate change adaptation, resilience-building and sustainable development (IOM, 2022a).



¹⁰ During the 2004 tsunami in Asia, 72 per cent of victims in Sri Lanka and 70 per cent in Indonesia were female (Oxfam, 2005) (although these disparities are reduced in disaster zones where social and economic rights are equally distributed and women have better access to information on weather alerts and higher literacy rate, as was the case during Hurricane Katrina in New Orleans in 2005, see Brunkard et al., 2008).

¹¹ For more information, see https://unfccc.int/documents/309500.

Haiti's urbanization rate is increasing at record speeds along with the city's plastic waste. © IOM 2022/Wendy Desert

TIME FOR IMPLEMENTATION

This section is structured around three highlevel recommendations for States and the wider international community to develop solutions derived from the strategic objectives outlined above. The three approaches discussed above are relevant to each of the recommendations. For each recommendation, there is a set of concrete priority actions and selected examples of where the proposed solutions have been implemented by IOM and partners. While these examples illustrate interventions developed in response to context-specific needs, they may inspire policymakers in other geographic contexts who seek to identify and replicate good practices.

RECOMMENDATIONS

1

Provide Solutions for People to Move: Enabling safe and regular migration

Governments should seek to provide the conditions for people affected by climate change to move within their countries and internationally in a safe, orderly and regular manner. With the right enabling conditions, migration can help achieve sustainable development outcomes, build resilience to external shocks and stressors, and fulfil the aspirations and needs of those who move and the societies they join, as well as those who stay behind (IOM, 2020b). Action should address mobile populations comprehensively, putting the people affected at the centre of concern and remembering that people moving as a result of climate change do not fall squarely within any one category provided by existing international legal frameworks.¹² Urban centres will have to prepare to accommodate potentially rapid growth driven by newly arriving populations.¹³ Those on the move will need skills and access to fair and dignified labour market conditions. Green transitions, which create new sectors and enterprises, could create labour market opportunities and benefit from a migrant workforce. A range of other measures need to be

taken to strengthen the positive impacts of migration in line with the 2030 Agenda. The more agency that migrants have in making the decision to move, the greater the potential benefits will be for areas of origin and destination (IPCC, 2022a).

What can be done?

- Integrate human mobility in national policies and plans on climate change (National Adaptation Plans, Nationally Determined Contributions, climate prosperity plans, etc.), disaster risk reduction (DRR) and development (United Nations Sustainable Development Cooperation Frameworks, Common Country Assessments).
- 2. Develop or review urban development plans to prepare for internal and international mobility, including the sustainable provision of services such as housing, energy, water, waste removal and education.

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¹² Terms such as "climate change refugee" or "environmental refugee" have no legal basis in international refugee law. There is also a growing consensus among concerned agencies, including IOM and UNHCR, that their use is to be avoided. These terms are misleading and fail to recognize a number of key aspects that define population movements in the context of climate change and environmental degradation, including that environmental migration is mainly internal and not necessarily forced, and the use of such terms could potentially undermine the international legal regime for the protection of refugees. In addition, all persons moving in the context of environmental drivers are protected by international human rights law. Persons displaced within their country due to disasters caused by natural or human-made hazards are also covered by provisions laid out in the Guiding Principles on Internal Displacement. This coverage is contingent on the extent to which a country has adopted the Guiding Principles.

¹³ The C40-Mayors Migration Council (MMC) Global Mayors Task Force on Climate and Migration launched at COP26 an action agenda to address climate migration in cities that can guide future efforts. For more information see C40-MMC Global Mayors Task Force on Climate and Migration.

- 3. Regularize migrants who are in an irregular situation in the context of disasters, in line with national laws.
- 4. Develop and roll out targeted skills training in climate change-affected communities to support better migration outcomes.
- Develop regular labour migration pathways from climate vulnerable regions and disaster-prone areas, including to countries or regions with skills shortages or aging populations.
- 6. Develop and implement regional or bilateral transhumance frameworks to allow people to move, while facilitating livelihoods.
- 7. Develop or update frameworks for planned relocation, as a last resort option, rooted in human rights and with the full participation of communities.
- Develop and implement regional, free movement protocols and frameworks that allow people to move across borders, including in the context of disasters, climate change and environmental degradation.
- 9. Provide access to health care, education for children, temporary work permits and other integration support for the people who cannot return due to disasters, climate change and environmental degradation.

Examples of solutions

Incorporating human mobility into local and city planning

Cities need to prepare for and adapt to the implications of climate change for migration and be able to incorporate this into urban planning for the future. This includes gathering and analysing data to understand the impacts of climate change on migration and cities, identify trends and future risks, and enable coordination across related policy areas. For example, in Burkina Faso IOM is supporting local communities and territorial services in Bokin and Mané to identify opportunities for mainstreaming migration, environment and climate change into local plans and to build the capacity of local stakeholders to address related challenges.¹⁴ In France, IOM in partnership with the Hugo Observatory of the University of Liege is assisting the city of Paris with data collection and analysis to better understand the impacts of climate change on inward and outward migration in urban areas, encourage intercity dialogue and partnerships to promote ambitious and accelerated action, and support the city to develop inclusive adaptation and disaster risk reduction plans.¹⁵

Leveraging labour migration to adapt to climate change

Small island developing States are especially vulnerable to climate impacts and disasters, with 10 island States among the 15 countries with the highest disaster risk (World Risk Report, 2021). In this context, enhancing the ability of affected communities to access labour mobility schemes and pre-departure orientation on safe migration initiatives can provide a needed lifeline and enhance livelihoods. Initiatives such as the Pacific Climate Change Migration and Human Security (PCCMHS) programme help increase the capacity of governmental and non-govermental stakeholders to promote labour mobility as a safe, regular and inclusive adaptation response.¹⁶ In Haiti, seasonal labour migration has been associated with lower vulnerability and increased resilience of migrants' households (IOM, 2017). However, further analysis is required to understand the policy implications.

Planning for communities' relocation away from danger zones

Planned relocations can in some contexts help entire communities move away from areas that are threatened by destruction, for instance villages situated on coastlines endangered by coastal erosion and sea-level rise. A recent review identifies over 300 planned relocations in 60 countries across the world, with half of those cases in Asia (Bower and Weerasinghe, 2021; IOM, 2022d). Most planned relocations are from one rural site to another and over

¹⁴ For more information, see https://environmentalmigration.iom.int/resources/migration-environmement-et-gouvernance-locale-publication-de-la-boiteoutils-appui-lintegration-du-lien-entre-migration-environmement-et-changement-climatique-dans-la-planification-locale-au-burkina-faso.

¹⁵ For more information, see https://environmentalmigration.iom.int/climate-migration-urban-areas-challenges-representations-and-inclusion.

¹⁶ For more information, see https://environmentalmigration.iom.int/pccmhs-enhancing-protection-and-empowerment-migrants-and-communities-affectedclimate-change-and-disasters-pacific-region.

relatively short distances (less than two kilometres). More than half involve indigenous populations. Despite the short distances, challenges are numerous, such as quality and availability of infrastructure and homes and ongoing exposure to natural hazards at destination sites. As the disruptions to people's lives and sense of belonging can be enormously taxing, planned relocation should only be considered as a last resort measure. Guidance such as the 2017 toolbox *Planning Relocations to Protect People from Disasters and Environmental Change*¹⁷ provide suggestions for States and other governmental actors who are planning

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to relocate people to protect them from disasters and environmental change. Countries like Fiji¹⁸ and Solomon Islands¹⁹ have, with the support of IOM, already developed policy frameworks that govern relocation efforts at the national level. In the case of Fiji, the Government instituted a Climate Relocation and Displaced Peoples Trust Fund, financed partly through their Environment and Climate Adaptation Levy and partly through voluntary contributions from donor States, like New Zealand, to finance planned relocation projects (Moore, 2022).

Provide Solutions for People on the Move: From anticipatory action to enabling solutions to minimize and better address loss and damage, including displacement

Adaptation to environmental change should be accompanied by preparedness for more frequent extreme weather events. These changes are occurring in a context in which record numbers of people are displaced globally by conflict, violence, and human rights violations. These trends have been further exacerbated by the impacts of COVID-19. The international community should prepare for the scale, scope and frequency of future disasters, including pandemics. This includes investing in better anticipatory action and emergency preparedness based on strong forecasting and early warning systems, whilst placing people at the core of all developed approaches. It also means responding to disaster displacement. In such situations, using IOM's Migration Crisis Operational Framework (MCOF)²⁰ can enhance comprehensive programming across humanitarian, development, peace and migrationrelated activities (IOM, 2001). Locating populations in need of assistance and assessing their needs and intentions is a key baseline for planning and rolling out targeted assistance. This points to the critical importance of data collection and tracking tools such as the IOM Displacement Tracking Matrix that is widely used among humanitarian and other actors.²¹

What can be done?

- Produce risk assessments to factor in current disaster risk and future climate change impacts, and to inform human mobility programming for emergency preparedness, disaster risk reduction and climate change adaptation (also relevant for Solutions for People to Stay, see below).
- Facilitate the participation of migrants, displaced persons, diasporas and communities, especially the most vulnerable, in actions regarding climate change adaptation, mitigation and losses and damages (also relevant for Solutions for People to Stay, see below).
- 3. Integrate climate risks into humanitarian response plans and programming to ensure response to climate-related displacement.
- 4. Ensure principled and comprehensive humanitarian response and protection for disaster displaced persons when needed.
- 5. Develop and implement non-return policies to ensure migrants are not returned to countries of origin which are experiencing disasters.

¹⁷ This Toolbox was developed by Georgetown University, UNHCR and IOM to provide concrete suggestions for States and other actors who are contemplating or planning to relocate people in order to protect them from disasters and environmental change.

¹⁸ The Fijian Government has developed Planned Relocation Guidelines: A framework to undertake climate change related relocation (Ministry of Economy, Republic of Fiji, 2018).

¹⁹ For more information, see https://solomons.gov.sb/planned-relocation-guidelines-handed-over-to-government/.

²⁰ International Organization for Migration (IOM) 2001. Addressing the Mobility Dimensions of Crisis: IOM Migration Crisis Operational Framework 2021 Addendum S/30/INF/1. IOM, Geneva.

²¹ Data produced through the Displacement Tracking Matrix is key to support international responses: in 2021, DTM data informed over 84 per cent of humanitarian needs overviews and humanitarian response plans to assess internal displacement.

- 6. Grant, expedite, or waive visas and other entry requirements in situations of disasters, including through private sponsorships and family reunification.
- 7. Promote and roll out durable solutions for disaster displacement.
- 8. Use the information and learning acquired when delivering humanitarian assistance to develop more effective and targeted early recovery, development and adaptation programming.

Examples of solutions

Aligning national policy frameworks with the recommendations of the Global Compact for Safe, Orderly and Regular Migration and the UNFCCC Task Force on Displacement

The countries which are most vulnerable to the adverse effects of climate change are increasingly aware of the importance of integrating human mobility in their national climate policies and planning. The 2018 Recommendations of the UNFCCC Task Force on Displacement provided a comprehensive set of principles for action in this area.²² In countries like Armenia, Kyrgyzstan, North Macedonia, the Republic of Moldova, Tajikistan, Turkmenistan and Ukraine, national policy analyses featuring a common methodology are helping countries translate global commitments into national action.23 The analyses identify existing gaps and opportunities to best align national frameworks with the Recommendations of the UNFCCC Task Force on Displacement. In Kyrgyzstan, this policy analysis is supporting the development of a new National Adaptation Plan (NAP) and the establishment of the National Statistics Committee, as well as the creation of a working group on climate change and migration under the national UN Network on Migration.

Supporting migrants in countries affected by disasters

Developing policy measures that allow the most vulnerable to access regular migration pathways is key to providing protection and assistance to those most impacted by climate impacts, as outlined in Objective 5 of the Global Compact for Migration. This includes measures to respond to forced and sudden movements, such as humanitarian visas and displacement management policies. Some countries have put such measures in place. For instance, the Government of Chile instituted new migration policies in 2018, including the establishment of new visa categories. These changes benefited migrants originating from environmentally fragile areas such as Haiti, whose presence in Chile has grown (from 1,800 Haitian migrants in 2014 to 120,000 in 2018). These migrants now have better access to regular migration pathways.²⁴ The Brazilian Government also developed humanitarian visas allowing the entry and stay on humanitarian grounds of Haitians (IOM, 2018b). Another example is the Temporary Protected Status (TPS) policy of the United States, which allows people to stay in the United States if their country of origin is experiencing a disaster.²⁵ Such cases, however, remain an exception rather than the rule. Of the 84 countries who have undertaken the Migration Governance Indicators assessment between 2016 and 2022, less than half have specific provisions in their immigration procedures for migrants from a country of origin experiencing a crisis (IOM, 2022c).

The non-binding, internationally recognized *Guidelines* to Protect Migrants in Countries Experiencing Conflict or Natural Disasters, developed through the Stateled Migrants in Countries in Crisis (MICIC) initiative, provide concrete guidance to stakeholders at the local, national, regional and international levels on how to prepare for and respond to crises such as conflict and disasters, in ways that protect and empower migrants,

²² For the recommendations see the Annex of UNFCCC, Report of the Conference of the Parties on its twenty-fourth session, held in Katowice from 2 to 15 December 2018 (FCCC/CP/2018/10/Add.1). The creation of the Task Force on Displacement was mandated by the 2015 Paris Climate Change Agreement in Decision 1/CP21, paragraph 49, as part of the work programme of the Executive Committee of the Warsaw International Mechanism on Loss and Damage. In 2018, Parties to the UNFCCC adopted, in COP Decision 10/CP24, the Recommendations from the report of the Executive Committee of the Warsaw International Mechanism for Loss and Damage Associated with Climate Change Impacts on integrated approaches to averting, minimizing and addressing displacement related to the adverse impacts of climate change.

²³ Analysis was carried out of relevant policies, laws and strategies on environmental degradation, climate change, disaster risk reduction, sustainable development, agriculture, rural development, urban development, gender, migration, remittances, diaspora, disaster displacement, evacuation, pastoralism and planned relocation.

²⁴ In Haiti, IOM runs a visa processing centre that provides administrative support services to assist Haitians wishing to join their families in Chile through the Family Reunification Visa (IOM, 2018a).

²⁵ For more information, see www.uscis.gov/humanitarian/temporary-protected-status.

leverage their capacities and help migrants recover from crises (MICIC, 2016). MICIC-related activities include for example capacity-building programmes, policy development and consular crisis preparedness, migrant-inclusive emergency management, as well as awareness-raising with governments and migrants. For instance, undocumented migrants and stateless persons living in substandard informal settlements in the Bahamas have been able to acquire the knowledge necessary to enhance community-based disaster preparedness.

Provide Solutions for People to Stay: Disaster risk reduction and in situ adaptation to avert and minimize displacement

Disaster risk reduction and in situ adaptation aim to build community resilience and promote climateresilient development, while addressing the drivers of forced movement. This means implementing integrated approaches to climate change adaptation mitigation, disaster risk reduction and and preparedness, and sustainable development. They should be done in line with the UNFCCC Warsaw International Mechanism on Loss and Damage's Technical Working Group on Comprehensive Risk Management (CRM), UNDRR's approach to CRM and the UNFCCC National Adaptation Plan Guidelines.²⁶ Another important element is amplifying the sustainable development benefits of migration for communities and areas of origin, including through transfers of skills and finance from the diaspora. Many of the actions proposed under solutions for people to move (see Recommendation 2) are relevant in this context.

What can be done?

- Produce risk assessments to factor in current disaster risk and future climate change impacts, and to inform human mobility programming for emergency preparedness, disaster risk reduction and climate change adaptation (also relevant for Solutions for People on the Move, see above).
- 2. Facilitate the participation of migrants, displaced persons, diasporas and communities, especially the most vulnerable, in actions regarding climate change adaptation, mitigation and losses and damages (also relevant for Solutions for People on the Move, see above).

- Identify gaps and priorities in local disaster risk reduction capacities and strengthen systems and policies to prevent and respond to future crises.
- 4. Facilitate the reintegration of returning migrants via "green reintegration" packages which contribute to climate change adaptation and mitigation.
- 5. Develop climate resilient infrastructure in the face of natural hazards or in post-crisis reconstruction.
- 6. Develop sustainable climate resilient livelihoods for at risk populations to support adaptation, including through education and vocational skills training.

Examples of solutions

Supporting national and local authorities to address the climate-mobility nexus

National and local authorities have a pivotal role to play in the design and implementation of measures for crisis prevention and preparedness, as well as for climate change adaptation. Developing policy frameworks and action plans should involve all levels of government, involving vertical political coherence between local and national levels and be informed by strong evidence. Community-based disaster risk management (CBDRM) initiatives can also be used to empower local actors to develop disaster management action plans. In Peru, for example, IOM is supporting the government to develop and implement a national strategy on migration linked to climate change. This includes technical support to produce an Action Plan on climate change and migration, strengthening the capacity of national authorities and local communities

²⁶ The Paris Agreement (Article 4, paragraph 2) requires each Party to prepare, communicate and maintain successive nationally determined contributions (NDCs) that it intends to achieve to reduce national emissions and adapt to the impacts of climate change. For more information, see https://unfccc.int/ process-and-meetings/the-paris-agreement/nationally-determined-contributions-ndcs.

A dike at sunset in Bor, South Sudan. © IOM 2020/Peter Caton

in vulnerable areas and generating knowledge to strengthen the country's national adaptation strategies. Bangladesh's 2021 National Strategy on Internal Displacement Management outlines the country's strategy to prevent displacement through disaster management and climate adaptation, as well as to prepare for potential internal migration and planned relocation when local adaptation and prevention are no longer viable options. In countries such as the Marshall Islands and Papua New Guinea, disaster risk reduction planning has been designed through intensive community engagement and relies on existing indigenous and traditional knowledge and practices. In Burundi (IOM, 2022b) and Timor-Leste (IOM, 2021c, p.14), community engagement has been instrumental in reducing risks for settlements and housing linked to natural hazards. In the Pacific Islands, the Climate Adaptation, Disaster Risk Reduction, and Education Programme (CADRE) blends education, climate change and migration for integrated development approaches in local communities.²⁷

In the later

Connecting migrant reintegration and climate action

National migration policies and national development strategies rarely consider issues of sustainable reintegration of migrants, as shown in a recent publication based on data from the IOM Migration Governance Indicators (IOM, 2022c). Yet, facilitating the reintegration of returning migrants through the development of reintegration initiatives that contribute to climate change adaptation and disaster risk reduction can potentially help reduce forced outmigration while contributing to climate action and sustainable development in places of return.²⁸ Guidelines developed by IOM can help interested governments develop programming in this area (IOM, 2020a). In Senegal, trainings on climate adaptation have helped returning migrants acquire knowledge of agroecology and agroforestry methods, supporting more sustainable reintegration into the community. In such contexts, local action²⁹ can promote community, nature-based initiatives that have the potential to minimize irregular migration and displacement in the context of disasters, environmental degradation and climate change. Also in Senegal, IOM supports small community entrepreneurs including returning migrants, potential migrants and their families with a focus on green jobs and environmentally sustainable agricultural approaches in three communities.³⁰ Local efforts are linked to national policy results and mainstreaming migration within policy efforts, as well as global migration and environment dialogues and decision-making such as the Global Forum on Migration and Development and the World Water Forum.

²⁷ For more information, see https://migration4development.org/sites/default/files/2022-07/Education - MMICD case study.pdf.

²⁸ The IOM project Mainstreaming Environmental Dimensions into Reintegration Support to Reduce the Effects of Climate Change on Migration in West Africa linked the Organization's work on reintegration with its work on climate change adaptation and disaster risk reduction. The project provided returning migrants with job opportunities in the field of climate change adaptation, disaster risk reduction and sustainable development throughout the region.

²⁹ The project Implementing Global Policies on Environmental Migration and Disaster Displacement in West Africa supported States in the region in their efforts to minimize displacement and facilitate regular migration in the context of disasters, climate change and environmental degradation.

³⁰ More information is available online about specific activities in the communities of Diourbel, Saint Louis and Sédhiou.

LOOKING AHEAD: CLIMATE CHANGE AND THE FUTURE OF HUMAN MOBILITY

Overlapping global crises, ranging from climate change to pandemics and conflict, will continue to have major impacts on human mobility. In addition, food security and urbanization are emerging as increasingly important factors in this equation. As these multiple challenges threaten to affect millions across the world and set back progress made towards sustainable development, climate change mitigation and keeping the increase in the global average temperature to below 1.5°C remain essential. To prevent the most severe climate change impacts, there must be a shift towards sustainable consumption and production. This needs to be coupled with stepping up adaptation measures and building resilience to climate change impacts. Climate change exacerbates vulnerability, so solutions aimed at increasing the resilience of vulnerable communities and reducing inequalities are key. Human mobility needs to be integrated in the planning, design and implementation of responses at all levels, from local to global. This requires stronger synergies between climate action, migration and other relevant policy areas such as sustainable development, and the strengthening of cross-sectoral partnerships, all rooted in a HDPN approach. In support of this, States need to consider taking forward the recommended solutions outlined above as part of wider climate action adaptation measures.

Increasing support for climate action and strengthening access to significantly scaled-up adaptation that is inclusive of human mobility dimensions and involves a whole-of-society approach is key to implementing the Paris Agreement, the Global Compact for Migration, the Sendai Framework for Disaster Risk Reduction, the New Urban Agenda and the 2030 Agenda for Sustainable Development. The international community must come together to design and implement solutions that address these interconnected issues. The actions set out in this paper present some of the practical options available to governments and the international community. The move to implementation needs to start now, although it is clear that some of the actions will take longer to achieve than others. With this in mind, Figure 3 categorizes the actions according to whether they are likely to be achieved in the short, medium or long term. IOM is fully committed to continue supporting these efforts, working jointly with different stakeholders, including those directly affected.

Looking ahead, the work conducted under the UNFCCC process and its annual COP, as well as the implementation of the new workplan of the UNFCCC Task Force on Displacement, will be vital for framing and encouraging the development of cross-sectoral solutions at all levels. Yet, the climate and migration nexus is as much a matter for migration governance as it is for climate action. Well-managed migration should be recognized and promoted as one of the avenues to adapt to changing climate conditions. The 2022 Progress Declaration adopted by States who participated in the Global Compact for Migration review process, the International Migration Review Forum, reaffirmed the international community's commitment to address issues linked to human mobility and climate impacts.

In the spirit of the 2030 Agenda for Sustainable Development and SDG 13 on Climate Action, it is important to seize opportunities to ensure complementarity of collective actions, such as the United Nations 2024 Summit of the Future. The international community must strive to keep the migration and climate nexus at the top of the global policy agenda. As the world faces the full impact of the climate emergency, failure to act is not an option.

Addressing Human Mobility and Climate CLIMATE RESILENT **Change: Solutions and Priority Actions** DEVELOPMENT Implementation of all the recommended actions needs to start immediately, but some will take longer to achieve than others. 2030 Develop and implement Provide access to service and Develop regular migration regional, free movement integration support to people pathways from climate vulnerable protocols and frameworks who cannot return to the regions and disaster-prone areas that allow people to move country/area of originx across borders LONG TERM Develop and implement regional Develop climate resilient or bilateral transhumance infrastructure in the face of frameworks to allow people to Promote and roll out natural hazards or in post-crisis move, while facilitating livelihoods durable solutions for reconstruction disaster displacement Develop/update frameworks Develop sustainable climate resilient for planned relocation in a livelihoods for at risk populations to rights-based and participatory support adaptation manner as a last resort option > 0 Σ Regularize migrants who are in an Develop and implement non-return MOV ш policies to avoid return to countries irregular situation in the context of **STA** disasters, in line with national laws experiencing disasters **MEDIUM TERM** SOLUTIONS FOR PEOPLE TO Z 0 9 Use the learning from the Develop and roll out targeted humanitarian assistance phase to skills training in climate change-Ц PEOPLE inform early recovery, development affected communities to support and adaptation programming better migration outcomes PEO Facilitate the reintegration of Grant, expedite, or waive visas returning migrants via "green and other entry requirements in FOR reintegration" packages for climate FOR situations of disasters change adaptation and mitigation SOLUTIONS SOLUTIONS Develop/review urban development Factor in current disaster risk and plans to prepare for internal and future climate change impacts in international mobility, including the human mobility programming for SHORT TERM sustainable provision of services emergency preparedness, disaster risk reduction and climate change Integrate human mobility in adaptation national policies and plans on climate change, disaster risk Facilitate the participation of reduction and development migrants, displaced persons, $\{\cdot\}$ ſŔ diasporas and communities, Integrate climate risks into especially the most vulnerable, humanitarian response plans and CUTTING APPROACA in all climate actions programming to ensure response CR055 to climate-related displacement Identify gaps and priorities in local Ensure principled humanitarian disaster risk reduction capacities and response and protection for 000 strengthen systems and policies to disaster displaced persons prevent and respond to future crises Broad-based partnerships policymaking and action Targeted approaches and focus on the most vulnerable **EXISTING AGREEMENTS** AND FRAMEWORKS

Figure 3. How quickly can the actions be achieved? Solutions' timescale

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REFERENCES*

- Afifi, T., R. Govil, P. Sakdapolrak and K. Warner
- 2012 Climate Change, Vulnerability and Human Mobility. Perspectives of Refugees from the East and Horn of Africa. United Nations University, Institute for Environment and Human Security, Bonn.

Benveniste, H., M. Oppenheimer and M. Fleurbaey

2022 Climate change increases resource-constrained international immobility, Nature, 12, 634/641.

- Bower, E. and S. Weerasignhe
- 2021 Leaving Place, Restoring Home: Enhancing the Evidence Base on Planned Relocation Cases in the Context of Hazards, Disasters and Climate Change, Platform on Disaster Displacement.
- Brunkard, J., G. Namulanda and R. Ratard
- 2008 "Hurricane Katrina deaths, Louisiana, 2005" Disaster Medicine and Public Health Preparedness, 2(4):215–223.
- Brzoska, M. and C. Fröhlich
- 2016 Climate change, migration and violent conflict: Vulnerabilities, pathways and adaptation strategies. *Migration and Development*, 5(2):190–210.

Cascone, N., A.E. Peña del Valle Isla and A. Milan

2016 Circular migration and local adaptation in the Mountainous community of Las Palomas (Mexico). In *Migration, risk management and climate change: Evidence and policy responses* (pp. 63-83). Springer, Cham.

COP27

2022 COP27 Presidency.

International Displacement Monitoring Centre (IDMC)

- 2021 Global Report on Internal Displacement 2021. IDMC, Geneva.
- 2022 Global Report on Internal Displacement 2022. IDMC, Geneva.

International Organization for Migration (IOM)

- 1992 Migration and the Environment, Geneva, IOM and the Refugee Policy Group (RPG).
- 2001 Addressing the Mobility Dimensions of Crisis: IOM Migration Crisis Operational Framework 2021 Addendum S/30/INF/1, IOM, Geneva.
- 2017 Making mobility work for adaptation to environmental changes: Results from the MECLEP global research. IOM, Geneva.

* All hyperlinks were active at the time of writing this paper.

- 2018a IOM Supports New Legal Pathway for Haitians in Chile. IOM, Geneva.
- 2018b Central and North America: Migration and displacement in the context of disasters and environmental change. *Migration, Environment and Climate Change Policy Brief series*. IOM, Geneva.
- 2019a Finding Our Way in the Age of Climate Change and Migration.
- 2019b Decades-Old Conflict Over Water in Yemeni Village Comes to an End. IOM, Geneva.
- 2020a Reintegration Handbook: Annex 11 Guidance for mainstreaming environmental and climate considerations into reintegration programming. IOM, Geneva.
- 2020b IOM Institutional Strategy on Migration and Sustainable Development. IOM, Geneva.
- 2021a La Movilidad Humana Derivada de Desastres y el Cambio Climático en Centroamérica. IOM, Geneva.
- 2021b Institutional Strategy on Migration, Environment and Climate Change 2021–2030. IOM, Geneva.
- 2021c IOM Disaster Risk Reduction Report 2021. Addressing Mobility Challenges in the Context Disasters and Climate Change: A Global Stocktake of IOM Activities in Disaster Risk Reduction. IOM, Geneva.
- 2021d Evaluation of IOM's Institutional Response to Address Migration, Environment and Climate Change Nexus. IOM, Geneva.
- 2021e IOM Migration Data Strategy: Informing Policy and Action on Migration, Mobility and Displacement 2020 | 2025. IOM, Geneva.
- 2022a Tajikistan: Understanding the Nexus of Migration, Gender, Climate Change and Agriculture 2019–2023. IOM, Dushanbe.
- 2022b Action research report: Supporting behavioural change among at-risk inhabitants of Rumonge province, in Burundi, for climate change adaptation and disease prevention and response. IOM, Geneva.
- 2022c Migration Governance Indicators Data and the Global Compact for Safe, Orderly and Regular Migration: A Baseline Report. IOM, Geneva.
- 2022d Leaving Place, Restoring Home Ii A Review of French, Spanish and Portuguese Literature on Planned Relocation in The Context of Hazards, Disasters, And Climate Change. IOM, Geneva.
- n.d. A Complex Nexus.

Intergovernmental Panel on Climate Change (IPCC)

- 2018 Global Warming of 1.5 °C.
- 2022a Technical Summary. In: Climate Change 2022: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press, Cambridge and New York, pp. 37–118.
- 2022b Cities, Settlements and Key Infrastructure. In: Climate Change 2022: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press, Cambridge and New York, pp. 907–1040.

- 2022c Africa. In: Climate Change 2022: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press, Cambridge and New York, pp. 1285–1455.
- 2022d Central and South America. In: Climate Change 2022: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press, Cambridge and New York, pp. 1689–1816.

Migrants in Countries in Crisis (MICIC)

2016 Guidelines to Protect Migrants in Countries Experiencing Conflict or Natural Disaster. IOM, Geneva.

Millennium Ecosystem Assessment

2005 Ecosystems and Human Well-being: Current State and Trends. Washington, DC: Island Press.

Ministry of Economy, Republic of Fiji

2018 Fiji: Planned Relocation Guidelines - A framework to undertake climate change related relocation.

Moore, L.

2022 Putting principles into practice: lessons from Fiji on planned relocations. In: *Forced Migration Review*, pp. 51–53, March 2022.

Oakes, R., S. Banerjee and K. Warner

2020 Human mobility and adaptation to environmental change. In: *World Migration Report 2020* (M. McAuliffe and B. Khadria, eds.). IOM, Geneva.

Oxfam

2005 The Tsunami's Impact on Women. Oxfam.

Traore Chazalnoël, M., D. Ionesco, and I.E. Duca

2020 Children on the move: why, where, how?, Climate Mobility and Children: A Virtual Symposium. UNICEF and IOM.

Traore Chazalnoël, M. and A. Randall

2021 Migration and the slow-onset impacts of climate change: Taking stock and taking action. In: World Migration Report 2022. IOM, Geneva.

United Nations

- 2022a UN chief warns against 'sleepwalking to climate catastrophe'.
- 2022b The United Nations Secretary-General's Action Agenda on Internal Displacement. United Nations, Geneva.

United Nations Framework Convention on Climate Change (UNFCCC)

n.d. What do adaptation to climate change and climate resilience mean?.

UN-Habitat

n.d. COP24: What cities are likely to experience.



UNICEF, IOM, Georgetown University, Institute for the Study of International Migration, United Nations University and Center for Policy Research

2022 Guiding Principles for Children on the Move in the Context of Climate Change. UNICEF.

United Nations Network on Migration

2021 Migration in the context of disasters, climate change and environmental degradation. Thematic Priority 4. Geneva.

World Bank

2021 Groundswell Part 2: Acting on Internal Climate Migration. World Bank, New York.

World Risk Report 2021

2021 World Risk Report, Bündnis Entwicklung Hilft, Germany.

Key IOM resources

The IOM Environmental Migration Portal and the Global Migration Data Portal's Environmental Migration page are comprehensive resources that provide access to cutting-edge data analysis and hundreds of research, policy and operational documents on the migration and climate change nexus.

Woman crossing river during the dry season. Due to sedimentation in Udaipur region intensified by the heavy rains and deforestation rivers are becoming shallower and broader contributing to floods during monsoon. © IOM 2016/Amanda Nero



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