

CLIMATE CHANGE AND MIGRATION IN VULNERABLE COUNTRIES

A snapshot of least developed countries, landlocked
developing countries and small island developing States



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Cover photo: Yereye is among several people who were recently displaced by seasonal flooding in their village near Kalafo, Ethiopia. In recent years, she recalls her village being flooded and displaced three times, with each time having to return to the same area until water levels go down and they can return to rebuild their homes. Yereye also has no hands, having lost them as a child when she was playing with an unexploded bomb she found. © IOM 2018/Muse MOHAMMED

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FOREWORD

(INTERNATIONAL ORGANIZATION FOR MIGRATION)

We have witnessed historical developments in the governance of climate migration in recent years. States have now formally recognized the impacts of the environment, including climate change, on migration. The Global Compact for Safe, Orderly and Regular Migration, the first-ever negotiated global framework on migration, recognizes that migration in the context of climate change, environmental degradation and disasters is a reality, and makes commitments to support both climate migrants and States.

Recognition of this issue is not limited to the migration domain alone, but builds on several other frameworks. In 2015, States adopted the Paris Agreement on climate change, which acknowledged the human rights of migrants and urged States to respect them when taking climate action. The same year, the Sendai Framework for Disaster Risk Reduction was adopted, in which States highlighted displacement as a consequence of disasters. Finally, the 2030 Agenda for Sustainable Development, also adopted in 2015, called for climate action, as well as safe and regular migration. Finally, in 2017, the Human Rights Council adopted a resolution addressing the human rights of environmental migrants.

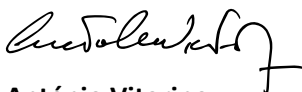
These policy achievements are unprecedented and highly significant, as they have implications not only at the global level, but also at the regional, national and subnational levels. They are particularly relevant to countries most vulnerable to climate change and their populations, notably least developed countries (LDCs), landlocked developing countries (LLDCs) and small island developing States (SIDS). Climate migration is a current but also a future reality in these vulnerable countries, and they have for many years brought attention to the challenges they face on this issue. Forced migration can have a detrimental effect to States and communities. However, migration, if well managed, can also be a coping mechanism in the face of heightened climate change. Migration with dignity can restore hope for individuals and communities, and contribute to the development of these countries.

By exploring these dynamics in a joint paper with the United Nations Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States (UN-OHRLS), I want to reaffirm the International Organization for Migration (IOM)'s commitment to

addressing the migration, environment and climate change nexus in partnership with the United Nations system.

This publication aims to contribute to a better understanding of the connections between climate change and migration in LDCs, LLDCs, and SIDS. By shedding light

on the current challenges vulnerable countries are faced with, IOM and UN-OHRLLS hope to encourage policymakers and relevant stakeholders in reflecting on concrete measures to address the climate migration nexus in vulnerable countries.



António Vitorino

Director General of IOM

The construction of public infrastructures and homes on Chuuk and its outer Islands in Micronesia that were damaged in the 2015 Typhoon Maysak. © IOM 2017/Muse MOHAMMED



FOREWORD

(UNITED NATIONS OFFICE OF THE HIGH REPRESENTATIVE FOR THE LEAST DEVELOPED COUNTRIES, LANDLOCKED DEVELOPING COUNTRIES AND SMALL ISLAND DEVELOPING STATES)

Climate change and its associated consequences are a key challenge of our century where we, all of us, have no time left to take action.

The least developed countries (LDCs), landlocked developing countries (LLDCs) and small island developing States (SIDS) total some 91 countries of our global community with a human population of about 1.1 billion. They are the most vulnerable among us. They face intricate and multiple challenges related to structural issues and geographical disadvantage.

These challenges are compounded by limited institutional capacity, scarce financial resources to cope with emerging challenges and a high degree of vulnerability to systemic shocks. All countries experience heightened vulnerability to climate change, and this contributes to undermine efforts to achieve sustainable development. In 2016, the 15 countries with the highest levels of vulnerability to natural hazards were either LDCs, LLDCs or SIDS.

All the countries have less means to prepare and mitigate against climate change-related hazards given their limited capacities to respond. Climate migration, either voluntary in nature as an adaptation strategy or as displacement, is yet another formidable challenge for LDCs, LLDCs and SIDS.

Yet, the LDCs, LLDCs and SIDS contribute least to climate change. LDCs, in spite of already being among the world's poorest and most vulnerable, are saddled with a "double stress", requiring them to tackle sizeable internal climate-related displacement while also being host to large and growing numbers of refugees. In some West and Central African LDCs, climate change has exacerbated conflicts over natural resources threatening now peace and security.

We face the perfect storm here.

Climate-related migration is on the increase both internally and across borders. It is not an issue we can wish away but that we must tackle now.

In recent years, it is notably that SIDS have become a focus of the global debate on climate change-induced migration. Islanders living in low-lying areas are threatened in their lives and livelihoods. Climate change-related disasters have increased in intensity and frequency.

Here, we can no longer be satisfied with urging national disaster adaptation. Climate change is a matter of national security and stability for SIDS. It is a matter of physical survival.

The global community, through the Istanbul Programme of Action for LDCs, the Vienna Programme of Action for LLDCs and the SIDS Accelerated Modalities of Action (SAMOA) Pathway, recognizes the vulnerability of these countries to climate change and its widespread development, peace and security impacts.

Recognizing and above all taking action on the nexus between migration, environment and climate change, climate migration is key to achieving sustainable development. This requires that we all join forces and take urgent action.

The Global Compact for Safe, Orderly and Regular Migration – adopted in December 2018 in Marrakesh, Morocco – provides a first-ever global framework to tackle all dimensions of international

migration in a holistic and comprehensive manner. In Agenda 2030, global leaders made a far-reaching promise we now must fulfil: the pledge to leave no one behind. This also requires thorough understanding of the complex dynamics of climate-induced migration in these countries.

Time for promises has run out. Action is needed now through a comprehensive approach and concerted efforts at the national, regional, subregional and global levels.

The United Nations Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States (UN-OHRLS) places great importance on its collaboration with the International Organization for Migration (IOM) to provide an analysis of climate migration in LDCs, LLDCs and SIDS.

I hope the brief summary of recommendations we provide for policymakers to address challenges and seize opportunities is helpful.

The work and recommendations are built on two briefing sessions on climate migration jointly organized by UN-OHRLS and IOM in 2018. UN-OHRLS expresses its gratitude for the support provided by the IOM in the preparation and issuance of this paper.



Fekitamoeloa Katoa 'Utoikamanu

Under-Secretary-General and High Representative for LDCs, LLDCs and SIDS

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Children in their traditional clothing in Killerton, Papua New Guinea, where climate change is changing the landscape.
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INTRODUCTION

Climate migration¹ – A multifaceted reality

Climate change and its impacts are experienced worldwide, reshaping irrevocably migration patterns on all continents.² Examples of migration occurring in a changing climate are numerous: (a) communities in Pacific islands forced to plan for relocation further inland due to coastal erosion; (b) storms in populous Asian countries displacing tens of thousands of people; (c) migration of fisherfolks from coastal villages in West Africa to cities because of the depletion of fish resources linked to ocean acidification; (d) rural to urban migration in Central Asia fueled by climate impacts on rural livelihoods; (e) nomadic populations in East Africa altering their traditional migration patterns to cope with the impacts of desertification; and (f) droughts in Latin America leading to internal and international migration.

Some people migrate to seek better opportunities, reacting to climate change impacts on their livelihoods, their health or their food security. Other

people, sometimes entire communities, are displaced involuntarily, as they flee the destruction of sudden-onset disasters and extreme weather events, often amplified by climate change. In 2017, 18.8 million people were newly displaced in the context of sudden-onset disasters within their own countries, and between 2008 and 2017, an average of 24.6 million people were displaced per year (Internal Displacement Monitoring Centre (IDMC), 2018). Others have to relocate away from their ancestral land, and planned relocation of communities because of coastal erosion and sea-level rise, for instance, is a new reality (Georgetown University, United Nations High Commissioner for Refugees (UNHCR) and International Organization for Migration (IOM), 2017), notably for many Pacific small island developing States (SIDS). Finally, some people are simply unable to move due to lack of means and become trapped in places where the adverse impacts of climate change represent a threat to their well-

1 The choice has been made in this publication to employ the term *climate migration*, a non-normative and non-prescriptive definition, as defined by the International Organization for Migration (IOM): Climate migration is the movement, within a State or across an international border, of a person or groups of persons, who are obliged to leave their habitual place of residence, or choose to do, either temporarily or permanently, predominantly for reasons of sudden or progressive change in the environment due to climate change. For more information, see: <https://weblog.iom.int/defining-climate-migrants-%E2%80%93-beyond-semantics>

2 The *Atlas of Environmental Migration* provides case studies from all parts of the world (Ionesco, Mokhnacheva and Gemenne, 2017). See also the recent projections of the Intergovernmental Panel on Climate Change (IPCC) on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways on human mobility (IPCC, 2018).

being (Melde, Lazcko and Gemenne, 2017). People unable to migrate also need to be included in policy development. These migratory movements can occur at several levels: internally within a country or across borders, regionally and internationally, and on different time scales, from temporary to permanent migration.

In many of these cases, climate change is one factor among others driving migration, alongside population growth, underdevelopment, growing inequality, weak governance, natural hazards, conflicts and violence (IOM, 2014b; Ionesco, Mokhnacheva and Gemenne, 2017; Intergovernmental Panel on Climate Change (IPCC), 2018:3–213). In other cases, the impacts of climate change directly lead to migratory movements when it becomes impossible for people to physically remain in affected areas, such as in the case of coastal erosion.

Looking at projections for the future, there is also cause for concern. According to the World Bank, 143 million people in three regions of the world (sub-Saharan Africa, South Asia and Latin America) could be forced to migrate within their own countries due to the worsening effects of climate change by 2050, such as decreasing crop productivity, shortage of water and sea-level rise (Rigaud et al., 2018). Furthermore, the recent report of the IPCC (2018), warns that “projections indicate that at 1.5°C there will be increased incidents of internal migration and displacement”.

However, it is also important to acknowledge that migration can be part of a positive, life-saving strategy when planned and well-managed. For instance, it allows people to cope with the impacts of environmental degradation, open new avenues for livelihood diversification and can encourage the contributions of migrants and diasporas to climate change action in their places of origin.



Due to a major drought in 2017 in Mauritania, people in the Hodh El Chargui region are receiving humanitarian assistance, including livestock feed supplies. © IOM 2018/ Sibylle DESJARDINS

Climate migration – Spotlight on least developed countries, landlocked developing countries and small island developing States

The least developed countries (LDCs), landlocked developing countries (LLDCs) and small island developing States (SIDS), are disproportionately affected by the negative impacts of climate change

due to their structural constraints and geographical disadvantage. At the same time, they contribute least to climate change.

Women searching for fish in Udayapur, Nepal, one of the regions vulnerable to climate change. Here, several families have lost their houses and livelihoods due flooding. They also face difficulties with their plantations because of changing rain patterns. © IOM 2016/Amanda NERO



LDCs, LLDCs and SIDS consist of 91 countries³ with a total population of about 1.1 billion. The LDCs represent the poorest and most vulnerable segment of the international community. They face multiple development impediments, such as limited productive capacity, lack of economic diversification, inadequate infrastructure and public services, stagnant trade and investment, and limited institutional capacity, which makes them more vulnerable to systemic shocks, including economic crises, commodity price volatility, health epidemics, natural hazards and environmental shocks (UN-OHRLS, 2018).

The LLDCs by definition lack access to the sea, and are also typically affected by infrastructure deficiencies and poor trade facilitation, which results in high transit and trade costs leading to weak economic growth and limited overall socioeconomic development. More than half (17) of all LLDCs are LDCs. Among the LDCs, those that are also LLDCs generally perform less well, reflecting more limited productive capacities and competitiveness and higher reliance on the economic and political situations of neighbouring countries.

SIDS are recognized as a “special case” for sustainable development. They are mostly geographically dispersed, and

have narrow resource bases and limited economies of scale. Being sea-locked, SIDS face greater risk of marginalization due to their small size and remoteness from world markets. They have fragile natural environments, and suffer from limited resilience to natural hazards, which frequently have catastrophic economic impacts. For low-lying atoll nations, the sea-level rise associated with climate change poses an existential threat.

In 2016, all the 15 countries with the highest vulnerability to natural hazards were either LDCs, LLDCs or SIDS.⁴ Quite often, these countries are least able to cope with climate change-induced disasters and associated migration of people, as a result of inadequate capacity and insufficient resources.

Displacement related to slow- and sudden-onset hazards, whose intensity and frequency are often amplified by climate change, has become one of the biggest humanitarian challenges faced by these vulnerable countries. Every year, millions of people⁵ are displaced by episodes of drought, devastating floods and tropical storms. Others have to move because of slow-onset processes of environmental degradation that irretrievably alter their habitat, such as sea-level rise, desertification and land degradation.

3 For a complete list of the 91 countries, see the Annex.

4 Fifteen (15) countries with the highest vulnerability worldwide: Central African Republic (74.8%), Eritrea (74.23%), Chad (72.86%), Afghanistan (72.12%), Haiti (71.85%), Liberia (71.54%), the Niger (70.80%), Sierra Leone (69.69%), Madagascar (69.52%), Guinea-Bissau (68.99%), Mozambique (68.28%), Guinea (68.21%), Burundi (67.98%), Sudan (67.37%) and Zimbabwe (67.24%) (United Nations University – Institute for Environment and Human Security and Bündnis Entwicklung Hilft, 2016).

5 For example, Cuba ranked third among countries with the most disaster displacement in 2018 (1.7 million) and Bangladesh ranked sixth with 946,000 people displaced, followed by Somalia (899,000), Viet Nam (633,000), Ethiopia (434,000) and Nepal (384,000) (IDMC, 2018).

The programmes of action of the vulnerable groups of countries – the Istanbul Programme of Action (IPoA) for LDCs, the Vienna Programme of Action (VPoA) for LLDCs and the SIDS Accelerated Modalities of Action (SAMOA) Pathway⁶ – highlight their vulnerability to climate change and its widespread impact. The IPoA recalls decisions of the Conference of the Parties of the United Nations Framework Convention on Climate Change (UNFCCC) to undertake measures to enhance understanding, coordination and cooperation with regards to climate change-induced displacement, migration and planned relocation at the national, regional and international levels (IPoA, para. 101). The VPoA points out that LLDCs are vulnerable to climate change, and remain disproportionately affected by desertification, land degradation and drought. Of the 29 countries where at least 20 per cent of the population is estimated to live on degraded lands, 14 are landlocked developing countries (VPoA, para. 15). The SAMOA Pathway acknowledges that climate change and sea-level rise continue to pose a significant risk to SIDS and their efforts to achieve sustainable development and, for some, represent the gravest threat to their survival and viability (SAMOA Pathway, para. 31).

LDCs, LLDCs and SIDS are impacted by climate migration in different ways. They are in fact among the strongest advocates for more robust action in that domain, as climate impacts affect all aspects of the daily lives of their populations. They also recognize the positive role of migrants in the development of their communities through remittances and transfer of skills and knowledge.

In order to address these numerous challenges and maximize the benefits of migration, it is crucial for these countries to integrate issues of climate change and migration at multiple levels, notably development planning, migration policies, and climate adaptation and mitigation policies. Regional cooperation also needs to be reinforced as regional solutions and best practices have proved to be invaluable to develop adequate responses (Platform on Disaster Displacement (PDD), 2018).

6 The Istanbul Programme of Action for the Least Developed Countries for the Decade 2011–2020 was adopted at the Fourth United Nations Conference on Least Developed Countries in 2011 in Istanbul, Turkey. The overarching goal of the IPoA is to overcome the structural challenges faced by the least developed countries (LDCs) in order to eradicate poverty, achieve internationally agreed development goals and enable graduation from the LDC category. The Vienna Programme of Action for Landlocked Developing Countries for the Decade 2014–2024 was adopted at the Second United Nations Conference on Landlocked Developing Countries in 2014 in Vienna, Austria. It addresses the special development needs and challenges of landlocked developing countries (LLDCs) arising from landlockedness, remoteness and geographical constraints to eradicate poverty and enhance sustainable and inclusive growth. The SIDS Accelerated Modalities of Action (SAMOA) Pathway, adopted at the Third International Conference on Small Island Developing States in 2014 in Samoa, addresses priority areas for small island developing States (SIDS) and calls for urgent actions and support for SIDS' efforts to achieve their sustainable development.

Community affected by floods in Rwanda, where climate change is affecting the intensity and frequency of rain patterns. © IOM 2016/Amanda NERO



Addressing climate migration – Growing global policy awareness

While the relationship between migration and the environment is not new, in recent years, there has been increasing political recognition of the need to address the impacts of climate change on human mobility and support States to respond to these challenges (Ionesco, Mokhnacheva and Gemenne, 2017; Chazalnoël and Ionesco, 2018). These growing levels of global policy awareness are occurring in a context where some countries have taken decisive steps to respond to climate migration challenges at the national and regional levels (IOM, 2018a; IOM, 2018b).⁷ The global policy instruments briefly presented in this section represent a unique opportunity for LDCs, LLDCs and SIDS to make their voices heard and generate ideas and concrete action.

The migration-related work ongoing under the UNFCCC since 2010 and the implementation of the 2015 Paris Agreement on climate change have been

instrumental in encouraging awareness on climate migration and promoting greater policy coherence,⁸ with global policy processes developed after 2015 consistently referring to the mobility-related principles outlined in the Paris Agreement (IOM, 2018b). In particular, the development of recommendations (Task Force on Displacement (TFD), 2018) to address, avert and minimize displacement in the context of climate change, by a Task Force on Displacement⁹ whose creation was mandated by the Paris Agreement, represents an important step and is expected to spark further action.

The other policy development landmark is the finalization of the Global Compact for Safe, Orderly and Regular Migration (UN, 2018a), building on the New York Declaration for Refugees and Migrants (Ionesco and Mach, 2017). The Global Compact for Migration represents the first comprehensive multilateral

7 For example, the Governments of Botswana (2014), Fiji (2018), Ghana (2016), Haiti (2015), Kenya (2017), Nigeria (2015) and Uganda (2016) have or are in the process of developing migration policies that integrate considerations of movements driven by disasters, environmental degradation and climate change. See more in IOM's *Mapping Human Mobility and Climate Change in Relevant National Policies and Institutional Frameworks* (IOM, 2018a). An example at the regional level is the *Guide to Effective Practices for RCM Member Countries: Protection for persons moving across borders in the context of disasters*. For more information, visit <https://disasterdisplacement.org/platform-on-disaster-displacement-mission-to-central-america>

8 A detailed analysis of the migration-related work conducted under the United Nations Framework Convention on Climate Change (UNFCCC) was put forward at the joint IOM and Platform on Disaster Displacement (PDD) stakeholder meeting organized on behalf of the Task Force on Displacement (IOM and PDD, 2018).

9 The Task Force on Displacement is composed of the following: Ketí Chachibaia, United Nations Development Programme; Madeline Garlick, United Nations High Commissioner for Refugees; Dina Ionesco, IOM; Michelle Leighton, International Labour Organization; Ezekiel Simperingham, International Federation of Red Cross and Red Crescent Societies; Atle Solberg, PDD; Bina Desai (civil society), Advisory Group on Climate Change and Human Mobility; Maria del Pilar Bueno, UNFCCC Adaptation Committee; Idrissa Semde, UNFCCC Least Developed Countries Expert Group; Cornelia Jäger, Petetua Latasi, Russell Miles and Sumaya Zakieldeen, Executive Committee of the Warsaw International Mechanism for Loss and Damage (WIM Excom); UNFCCC NGO constituency group and local government and municipal authorities. For more details, visit <https://unfccc.int/node/285>

framework on international migration, with commitments to address challenges and opportunities of migration, including migratory movements resulting from the adverse effects of climate change. It marks a milestone in the governance of migration in all its dimensions. The finalized text dedicates a specific section to disasters, climate change and environmental degradation and articulates a comprehensive set of potential responses to address drivers of migration, through climate change adaptation and mitigation measures, disaster preparedness, disaster risk reduction and disaster response (UN, 2018a:8–9). The text also acknowledges that adaptation in situ or return of environmental migrants might not be possible in some cases, and that strengthened regular migration pathways need to be part of a comprehensive migration management strategy (Ionesco and Chazalnoël, 2018).

The Sendai Framework for Disaster Risk Reduction (UN, 2015b) also clearly acknowledges displacement in the context of disasters and has prompted the development of new tools for national policymakers to strengthen action in this area (Norwegian Refugee Council (NRC) et al., 2018); while States party to the United Nations Convention to Combat Desertification (UNCCD) also examined the linkages between climate change and migration (UNCCD, 2017).

Finally, the 2030 Agenda for Sustainable Development recognizes the multidimensional reality of migration and the positive contribution of migration for inclusive and sustainable development (IOM, 2017). It points out that more frequent and intense disasters and displacement of people threaten to reverse much of the development progress made in recent years (IOM, 2017; UN, 2015:para. 14).

It is in this context of growing awareness and opportunities that the United Nations Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States (UN-OHRLS) and IOM, the United Nations Migration Agency,¹⁰ are collaborating to provide an analysis of climate migration in LDCs, LLDCs and SIDS. This publication aims to provide policymakers with a snapshot of the complex dynamics associated with climate migration in these three groups of vulnerable countries and offers possible recommendations to address these challenges and seize opportunities.

10 IOM has been addressing the migration, environment and climate change nexus for more than 25 years on all fronts: conducting research, promoting policy coherence and development, building capacity of policymakers, and operational implementation. For more information, visit the IOM Environmental Migration portal at www.environmentalmigration.iom.int

SNAPSHOT I:

CLIMATE CHANGE AND MIGRATION IN LEAST DEVELOPED COUNTRIES

Least developed countries' structural vulnerability to climate impacts

The 2030 Agenda for Sustainable Development recognized the LDCs as the most vulnerable countries in the world, and put these at the centre of the development agenda. The 47 LDCs¹¹ are characterized by low per capita income and severe structural impediments to sustainable development. They are facing high vulnerability to economic and environmental shocks, and are the lowest on the Human Assets Index.¹²

LDCs are among the countries most vulnerable to climate change due to lack of development and capacity. In 2016, 14 of the top 15 countries ranked with the least adaptive capacities worldwide were LDCs (United Nations University – Institute for Environment and Human Security and Bündnis Entwicklung Hilft, 2016). Despite their vulnerability to

the effects of climate change, they also contribute least to the phenomenon. Forty-two (42) out of the 50 countries with the lowest rates of CO₂ emissions are LDCs (United Nations Conference on Trade and Development (UNCTAD), 2017). In short, LDCs are disproportionately shouldering the burden of climate change.

Meanwhile, 9 out of 12 LDCs in different stages of graduation do not meet the Economic Vulnerability Index (EVI) threshold for graduation according to the triannual review of the LDC graduation criteria conducted by the Committee for Development Policy of the United Nations Economic and Social Council in March 2018.¹³ The EVI is one of the defining criteria of LDCs, which features indicators of exposure to impacts

11 For a complete list of LDCs, see Table 1 in the Annex.

12 For the definition of LDCs developed by the Committee for Development Policy, visit www.un.org/development/desa/dpad/wp-content/uploads/sites/45/publication/2015cdphandbook.pdf

13 The Economic Vulnerability Index (EVI) threshold for graduation in 2018 was 32 or below. EVI of the 12 LDCs that have met the thresholds for graduation remains high, i.e. Angola (36.8); Bangladesh (25.2); Bhutan (36.3); Kiribati (73.7); Lao People's Democratic Republic (33.7); Myanmar (31.7); Nepal (28.4); Sao Tome and Principe (41.2); Solomon Islands (51.9); Vanuatu (47); Timor-Leste (56.8); and Tuvalu (56).

associated with climate change, such as population in low elevated coastal zones vulnerable to sea-level rise and storm surges, and victims of disasters caused by natural hazards. Even after graduation, most countries will remain vulnerable to climate impacts, threatening to reverse their development gains.

In 2017, disasters had a major socioeconomic impact on populations in LDCs, affecting an estimated 23 million people (UNCTAD, 2017). Floods were particularly devastating in Angola, Bangladesh, Haiti, Malawi, Myanmar, Nepal and the Niger. Drought affected over 8 million people in Angola, Chad, Mauritania and the Niger. Cyclones impacted the lives of 4.6 million people in Bangladesh, Haiti, Madagascar, Mozambique, Myanmar and Vanuatu (United Nations General Assembly, 2018). In LDCs where data is available, the number of newly displaced persons due to disasters reached 6.7 million in 2017 (IDMC, 2018). Climate-related

disasters not only result in significant human and economic loss in LDCs and exacerbate displacement of people both within and across borders, but also jeopardize the achievement of progress in key areas of the IPoA, as well as the Sustainable Development Goals (SDGs).

Around one third of the people living in LDCs are currently living on less than USD 1.9 per day according to data published by the World Bank (UN-OHRLS, forthcoming), and more than two thirds of people in LDCs live in rural areas where poverty is also most widespread and deepest (UNCTAD, 2015). Hazards and environmental degradation, such as protracted droughts and floods have resulted in crop failure, land degradation and food insecurity, leading to disasters and compelling farmers to leave their homes.

At the same time, as economies undergo structural transformation, the agricultural sector becomes relatively

The Lake Chad Basin region is experiencing high levels of deforestation, desert encroachment and inadequate or erratic rainfall due to climate change, leading the Lake Chad to shrink to a fraction of its size in 50 years. At the same time, Boko Haram's violence has been ongoing for more than eight years, resulting in terrorist attacks and human rights violations. The effects of both climate change and poor security conditions become intertwined and greatly impact people's livelihoods, thereby influencing migration decisions. Both internal and international displacements have been observed in the region, with more than 2.2 million people living in displacement situations around the Lake Chad Basin (IDMC, 2018). Local populations surveyed in the four countries around the Lake Chad Basin – Cameroon, Chad (LDC), the Niger (LDC) and Nigeria – reported changing migration trends over the course of the past decade, despite expressing an overall desire not to migrate. Sustainable use of resources, including water, and efficient counter-insurgency operations are needed to end the plight of people in this region (IOM, 2018d; IDMC, 2018).

smaller, and the movement of people within and across countries is inevitable (Food and Agriculture Organization of the United Nations (FAO), 2018). The population of LDCs is projected to reach 1.9 billion in 2050, and the proportion of urban population will double by 2050 compared to the beginning of the twenty-first century. In 2013, 20.9 per cent of international migrants in LDCs were youth (Global Migration Group, 2014). In Africa alone, 11 million youth will enter the labour market every year for the next decade (FAO, 2018). Change in the natural

environment and demography are expected to exacerbate rural-to-urban migration in LDCs. This will undoubtedly put pressure on urban infrastructure, the environment and employment opportunities. Migrants might become trapped in new urban slums and areas prone to flooding, poor sanitation and disease, exacerbating inequality, insecurity and unsustainability. On the other hand, well-managed migration can also offer opportunities in terms of livelihood diversification or access to education for instance.

Internally displaced persons from N'gourtoua, Niger, where Boko Haram violence intersects with the adverse effects of climate change.
© IOM 2016/Amanda Nero



The double stress – Coping with climate impacts on migration in least developed countries

LDCs are also saddled with the “double stress” of tackling massive internal climate-related displacement while hosting large numbers of refugees from neighbouring countries. For example, Ethiopia hosted the largest refugee populations in Africa in 2017. Most of these refugees are from neighbouring South Sudan and Somalia (Maunganidze, 2018). By the middle of 2018, Ethiopia was faced with an unprecedented caseload of 2.6 million internally displaced persons (IDPs) affected by conflict and drought. Children constituted more than half of the displaced population

(UNICEF, 2018). As of December 2018, Bangladesh, situated in one of the most vulnerable and disaster-prone regions in the world, is estimated to host close to 1 million Rohingya refugees from Myanmar (IOM, 2018g). This is happening amid the tremendous challenge posed by hundreds of thousands of people displaced internally as a result of weather-related events, such as cyclones, and riverbank erosion. This “double stress” puts additional strain on the scarce resources of LDCs, further reducing their coping ability and weakening their resilience.

Sirajganj is a community in Bangladesh where many people were displaced several times due to river erosion.
© IOM 2016/Amanda NERO





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

While migration linked directly or indirectly to environmental degradation and climate change are a daily reality, there are vulnerable segments of population in LDCs, such as many women, children, elderly, disabled and indigenous people, who are unable to move in the face of calamities and are trapped in desolate environments. LDCs are still struggling to foster high productivity activities in the manufacturing and specialized sectors that are crucial for structural transformation. Therefore, they have limited institutional capacity and financial resources to build resilience against climate stress, and cope with

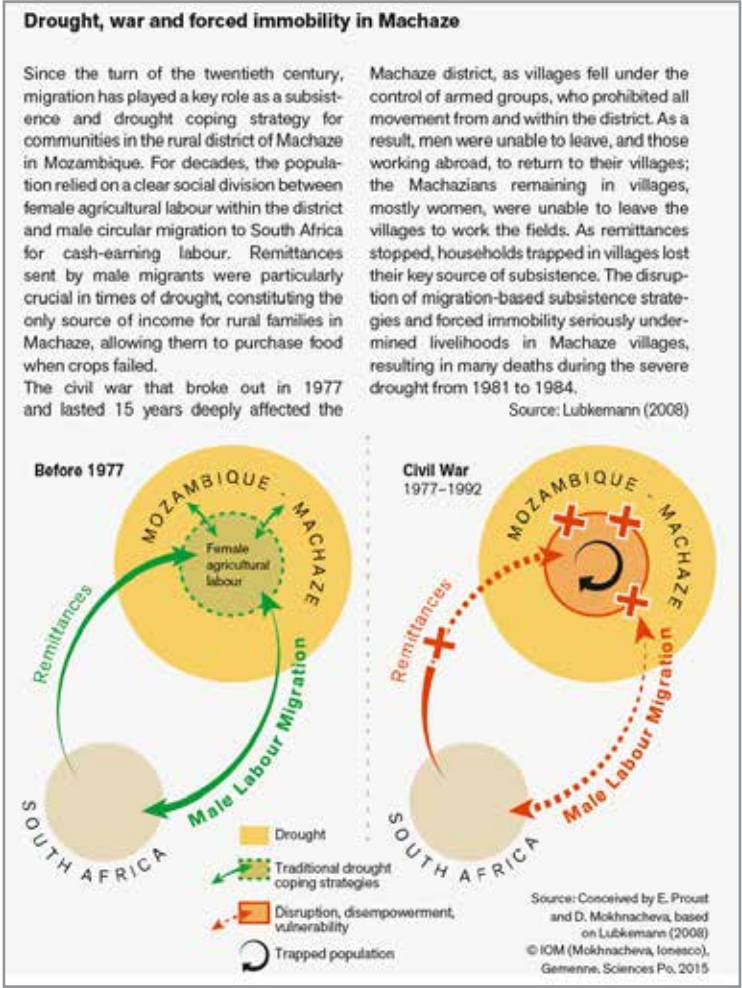
climate-induced displacement. The vulnerable populations often bear the brunt of disasters. Their meager assets, lack of access to knowledge and skills, and restrictive employment policies and cultural norms constitute formidable financial and social barriers to safe and orderly migration. These so-called “trapped populations”¹⁴ in LDCs reflect their lack of preparedness and capacity to adapt to climate change. In that respect, policy development needs to take into account the need to migrate and adapt when the impacts of climate change become impossible to manage.

¹⁴ See the case study provided from the *Atlas of Environmental Migration* (Ionesco, Mokhnacheva and Gemenne, 2017).

Supporting climate action in least developed countries – The role of remittances

Migration is an integral part of sustainable development globally and can contribute to economic and social development if managed well. The economic and social benefits that migrants bring extend to both origin and destination countries. Through remittances, transfer of skills and knowledge, provision of labour and entrepreneurship, and bridge-building among cultures, migrants and their diaspora communities are active agents of development.

IPoA recognizes the importance of remittances and calls for the reduction of transaction costs and the creation of opportunities to channel them towards development-oriented programmes (UN-OHRLS, 2017). In 2017, an estimated USD 37 billion was transferred to LDCs, down by 2.6 per cent compared with the 2016 peak of USD 37.9 billion, which is in the same range as Official Development Assistance disbursements. LDCs are among the countries where remittances



represent the highest percentage of their GDP.

Remittances help to increase household income, support consumption and investment, thus contributing to poverty reduction and improvements in the welfare of families and communities in migrants' origin countries. At the household level, remittances can support resilience to climate impacts. Remittances can also play a positive role in promoting structural transformation in LDCs, being an important source of financing for development. For instance, in Ethiopia, 40 per cent of remittances of Ethiopian internal migrants are used primarily for productive investments, while 33 per cent are used for consumption (UNCTAD, 2018).

At the macrolevel, remittances also constitute an important source of foreign-exchange reserves, therefore enabling countries to service their debts and cover their import bills. As such, remittances enable countries to increase

their resilience to external shocks (Das and Serieux, 2010).

However, the average cost of sending remittances to LDCs is only decreasing slowly, at 7.2 per cent in 2017, much higher than the SDG target of 3 per cent. This undermines the increase of flow of remittances and their use for sustainable development.

The development of incentives and policies to encourage migrants to contribute to local investments in climate adaptation and mitigation could therefore represent a real opportunity to support community-based climate action, as well as contribute to macro-level structural changes. It is also important to acknowledge that the transfer of migrants' skills and competencies can complement financial efforts and also contribute to more efficient climate action. However, obstacles remain, such as the high cost of sending remittances.

Boyi, 26, stares off into the distance over the 30 hectares of land that he now shares with 29 other community members as part of an IOM project for migrants' reintegration by restoring degrading lands. Photo: IOM 2018/ Monica CHIRIAC



The district of Ambovombe in the Androy region of Madagascar is chronically affected by drought and famine resulting in a daily struggle to find food and water. Many people have had to sell their livestock and land, and migrate to other regions to find employment.
© IOM 2017/Natalie OREN



SNAPSHOT 2:

CLIMATE CHANGE AND MIGRATION IN LANDLOCKED DEVELOPING COUNTRIES

Structural vulnerabilities to climate change in landlocked developing countries

The 32 LLDCs¹⁵ have a combined population of over 500 million. They share some common issues linked to their geographical location, which affect their economic engagement with the rest of the world. Lack of territorial access to the sea, remoteness and isolation from world markets and high transit costs impose serious constraints on the potential of the LLDCs to harness trade for their development. As a result, many LLDCs find themselves marginalized from the world economy, cut-off from the global flows of knowledge, technology, capital and innovations, and unable to benefit substantially from external trade. This situation results in narrow production and export bases, leading to limited economic growth and persistent poverty in the LLDCs.

These structural vulnerabilities and limited productive capacities mean that LLDCs are disproportionately affected by the severe negative impacts of climate change. Their remoteness from the markets and economic limitations mean that they also have limited potential to adapt to and mitigate the impacts of climate change.

Desertification is threatening traditional livelihoods in Mongolia. © IOM 2017/ Nyamdavaa YONDONJAMTS



¹⁵ For a complete list of LLDCs, see Table 2 in the Annex.

Water stress in landlocked developing countries – Implications for migration

Many LLDCs are situated in dry regions where hyper-arid, semi-arid and arid conditions prevail. These conditions are set to worsen due to climate change, desertification and land degradation. According to a study by UN-OHRLLS (2015), 54 per cent of total land in LLDCs is classified as dryland. Furthermore, 60 per cent of the population in LLDCs are in these drylands.

The LLDCs are generally the most water-stressed countries and face continuing desertification. Examples of LLDCs in sensitive areas include: (a) Mongolia, Uzbekistan, Kyrgyzstan, Tajikistan and Kazakhstan, all positioned near the Gobi Desert; (b) Botswana, sections of Zambia and Zimbabwe, which are in

close proximity to the Kalahari Desert; and (c) the Niger, Mali, Burkina Faso and Ethiopia, which are located in the Sahel region. Many LLDCs are threatened by impending water scarcity. According to the United Nations' *Sustainable Development Goals Report 2018*, the proportion of land area covered by freshwater bodies in LLDCs has declined by 4.7 per cent over the last decade (2005–2016). Lake Chad is an emblematic example of the impacts of climate change on water resources; a bulk of the lake has shrunk in the last 50 years due to high temperatures and droughts, making those dependent on this water resource at risk of losing their primary water supply. See box on page 10.

Change in water availability and prolonged water insecurity have long been a factor in the decision to migrate. Historically, communities around the world have adjusted to the reduction of seasonal water supplies by migrating temporarily. Nomadic pastoralists, for example, have integrated seasonal migration in their ways of life. Today, nomadic pastoralists are often pushed to alter their routes and travel further and for longer periods in search of water and land resources (Ionesco, Mokhnacheva and Gemenne, 2017), also increasing the risk of conflict over water. Water stress was also identified as one of the key driving factors of migration in East and West Asia in research exercises conducted in Iraq (IOM, 2012), Bangladesh, Maldives and Nepal (IOM, 2016c). Quantitative data from the IOM DTM has similarly begun to evidence the migratory impacts of severe water scarcity in parts of Africa. Drought-induced displacement figures collected during 2017 estimated that drought displaced more than 475,000 people internally in Ethiopia (December 2017), over 1.2 million individuals in Somalia (November 2016–November 2017) and more than 14,000 in Madagascar (November 2017) (IOM, 2017).

Source: Mach and Tignino, 2018.

Residents of the western province of Herat in Afghanistan, have been facing very harsh droughts several times. In 2002, after four years of drought, it was impossible for people to produce enough food to sustain themselves and they had to seek support. In 2018, people were displaced due to drought. © IOM 2002/Marc PETZOLDT



The issue of lack of water in LLDCs is intrinsically linked to the mobility of populations. Faced with scarce water resources, populations in LLDCs might feel the pressure to migrate to facilitate their access to water or cope with water scarcity.

LLDCs with abundant water resources like the Plurinational State of Bolivia and Armenia are also threatened by climate variability linked to erratic precipitations, high temperatures and high frequency of extreme events, which all put water resources under increasing pressure. The livelihoods of many communities in the Plurinational State of Bolivia and other mountainous LLDCs are linked to glaciers as they rely on glacial meltwater supply in the dry season. However, in recent years, the melting of glaciers has accelerated, negatively impacting the countries' water resources and

contributing to frequent landslides, floods and reduced biodiversity in countries like the Plurinational State of Bolivia and Nepal. For example, between 1986 and 2014, the glaciers of the Plurinational State of Bolivia shrank by 43 per cent, according to research by Cook et al. (2016). According to Climate News Network (Radford, 2016), throughout the year, the people in the Bolivian cities of La Paz and El Alto get 15 per cent of their water from glacial supplies; in the dry season, this figure doubles. Furthermore, Climate News Network notes that glacial meltwater also keeps regional rivers and lakes topped up, as the glaciers retreat and the body of surviving ice dwindles; some of these reservoirs, too, are at risk. This is another example of how water stress might directly and indirectly impact the migration of people whose livelihoods can no longer be sustained.

Impacts of climate change on agriculture – Implications on migration

Most of the LLDCs are located in dry regions with dominating hyper-arid, semi-arid and arid conditions, and are mainly reliant on a few primary commodities of agricultural or mineral nature. These commodities are especially vulnerable to climate change impacts, which leaves many of the countries highly vulnerable to natural shocks, particularly climate change-related risks. For instance, agriculture remains the main source of employment and livelihood generation in most of the LLDCs. According to FAO (2017), the share of employment in agriculture remains over 50 per cent in the LLDCs.

It is generally acknowledged that the agricultural sector is the hardest hit by climate change. The majority of households (>60%) in the LLDCs consist of rural-based smallholder farmers practicing rain-fed agriculture in dry/

semi-arid and marginal lands that are highly susceptible to rainfall scarcity. The vulnerability of these farmers is worsened by the following: (a) poor resilience and low adaptive capacity; (b) over-dependence on climate-sensitive sectors (e.g. livestock, forestry, fisheries and water); (c) non-diversified system of livelihood centred on peasant-type of agriculture; (d) production system concentrated on a few crops of low commercial value; and (e) lack of human, institutional and technical capacity. These challenges result in food insecurity, poverty, human loss and decreased productivity and can therefore be drivers of both internal and international migration. The recent report of the IPCC (2018:3–244) also reveals that anomalies in temperature variation affect agriculture yield, leading communities dependent on it to migrate.

Mongolia is illustrative of the challenges faced by many LLDCs. The country experiences an array of climate change-related impacts, such as heavy snowfalls and snowstorms, sandstorms, aggressive winds, hail and floods. Climate change and climate variability have extensively affected nomadic pastoralism, one of the key agricultural sectors in Mongolia. The recurrent droughts and the extremely cold winter marked by heavy and protracted snowfall, low cold temperatures and windstorms, called *dzud*, are some of the severe challenges that have affected nomadic livestock agriculture. In 2015 and 2016, a severe *dzud* destroyed almost 80 per cent of Mongolia's wheat crop and fodder, and affected 41 per cent of Mongolia's rural herder population. Such intensifications of *dzuds* episodes force herders to travel greater distances in search of better pasture, and contribute to the migration of rural populations to urban centres. The unprecedented scale of this unplanned migration from rural to urban areas is now leading to overcrowding and environmental damage in urban areas. In response to the increasing impact of climate change in Mongolia, IOM is now monitoring population movements caused by slow-onset hazards and climate change to offer assistance and protection.

Source: IOM, 2018c.



Women work to rebuild an embankment in one of the regions hit by Cyclone Aila in Dacope, Khulna in Bangladesh. © IOM 2010/Abir ABDULLAH

In Ethiopia and Uganda, the deterioration of pastures due to land degradation and desertification have forced pastoralists to migrate hundreds of kilometres away in search of better pastures. In Burkina Faso, desertification has also been identified as a driver of migration, and many urban centres see the arrival of vast numbers of migrants. The swelling population in city centres will continue to put additional strain on already stretched public infrastructure, especially water and sanitation provision.



Displaced women seated under a tree in Ethiopia, where drought exacerbated by climate change is affecting hundreds of thousands of people. © IOM 2017/Rikka TUPAZ

SNAPSHOT 3:

CLIMATE CHANGE AND MIGRATION IN SMALL ISLAND DEVELOPING STATES

The world's highest vulnerability to climate change – Small island developing States

The challenges associated with the increasing impacts of climate change on SIDS¹⁶ are now recognized as a priority for action by the SIDS themselves¹⁷ and the wider international community. Since the 1990s, CO₂ emissions have increased by 37 per cent, and global warming is expected to reach 3.5 degrees by the end of the twenty-first century. Despite their small contribution to global CO₂ emissions, SIDS are the most vulnerable countries to the effects of climate change. The SIDS now face recurring natural hazards, such as massive cyclones and king tides that devastate key infrastructure, leading to disasters. Furthermore, the long-term effects of sea-level rise and unpredictable weather patterns now threaten the livelihoods of millions of islanders in the Pacific, Caribbean and Indian Ocean, as well as the very existence of coastal communities threatened by the need to

relocate further inland. According to a recent report of the IPCC (2018:5–452), “small island developing States (SIDS) are expected to experience challenging conditions at 1.5°C warming due to increased risk of internal migration and displacement and limits to adaptation.” What is more, it explicitly states that migration in SIDS occurs increasingly more due to sea-level rise (IPCC, 2018:3–181).

These climate factors increasingly influence the decision of many islanders to uproot their lives in search of safer conditions and better life prospects. Today, building local resilience, creating global, regional and national partnerships and defining an international governance structure for climate migration are essential in order to secure the lives and rights of millions of people in island States. As the effects

¹⁶ For a complete list of SIDS, see Table 3 in the Annex.

¹⁷ SIDS have been particularly active and vocal in negotiations that led to the UNFCCC; their involvement is motivated by their particular vulnerability to climate change impacts.

of climate change become increasingly visible in SIDS, international cooperation and efficient development programmes

must be accelerated to reduce forced instances of climate migration and create sustainable and resilient island States.

Climate change impacts and financial stress

The soaring effects of climate change on infrastructure and key industries is perhaps one of the most important factors affecting patterns of migration in SIDS. In the Pacific region, cyclones accounted for 76 per cent of the reported disasters between 1950 to 2004 (World Meteorological Organization, 2015), with the average cost of damage per cyclone estimated at USD 75.7 million (ABC-CLIO, 2013). Furthermore, SIDS economies are heavily dependent on a few key industries, such as tourism, agriculture and fisheries. Coastal-concentrated agricultural and tourism infrastructure developments face the threat of sea-level rise, leaving the domestic economy increasingly vulnerable to climate shocks. For example, the Caribbean island of Grenada suffered extensive damage as a result of Hurricane Ivan in 2004. The event destroyed the nutmeg crop, the mainstay of the island's economy, and left 70 per cent of hotel rooms utterly destroyed (World Bank, 2009). Climate change also threatens to permanently alter the fishing industry in SIDS. In the Pacific island States, the fishing industry, notably the supply of tuna, represents an important part of total GDP. As temperatures increase, marine species such as tuna are gradually moving away to seek colder water (McKie, 2017), threatening the livelihoods of many people directly employed in the fishing sector.

Such growing climate impacts on livelihood opportunities might motivate islanders to migrate in search of other labour pathways. In the Pacific, for example, several labour migration schemes exist between several SIDS and bigger islands, such as Australia and New Zealand, as well as with the United States of America. The aim of the schemes is to increase people's opportunities for employment, sometimes resulting in income diversification that can support adaptation to climate change.

In addition to climate change vulnerability, financial constraints limit the ability of SIDS to invest in capital projects that would increase local resilience and mitigate the effects of climate change on the population. High debt burdens, coupled with the high cost of post-disaster reconstruction and limited access to finance, leave small island economies starving for resources. For example, when Cyclone Winston hit Fiji in February 2016, damages were estimated at USD 1.4 billion. In comparison, in 2016, the country's public debt was estimated at USD 2.1 million, reaching 46.21 per cent of GDP. The resulting displacement was estimated at more than 7,000 people as of March 2016 (IOM, 2016a; IOM, 2016b). Cases like these demonstrate the importance of providing concessional finance to countries with limited capacity to

mobilize resources. This is essential to provide governments the means to respond to displacement, “build back quicker” in the aftermath of a disaster, and most importantly to take preventive measures to strengthen community

resilience. Action at the adaptation level, with adequate financial resources is likely to reduce the need for people to engage in forced migration due to climate change impacts.

International and internal dimensions of the climate change and migration nexus in small island developing States

The adverse impacts of climate change have directly and indirectly contributed to the migration of thousands of people in SIDS in the last decade alone. For instance, between 2008 and 2017, 320,000 people were displaced in the Pacific region because of disasters (IOM, 2018f). In the aftermath of disasters, the lasting effects of climate change on the local economy and environment cause severe socioeconomic disruptions. An estimated 3 million islanders reside in low-lying coastal zones, leaving them vulnerable and underprepared to cope with the recurring effects of climate change and slow processes of environmental degradation. With 10 per cent of the world’s population living under 10 metres above sea level (UN, 2017), the number of migrants across SIDS worldwide is expected to increase due to sea-level rise.

Planned relocation to adapt to the changing landscapes is already taking place in SIDS. People are relocating inland to prevent loss and damage in their lives and to their livelihoods. Planned relocation should be a measure of last resort, when all other options have been exhausted, as it can be extremely

disruptive for people and communities. Several SIDS governments have already conducted planned relocation, such as Fiji, Papua New Guinea and Vanuatu. In Fiji, for example, following Tropical Cyclone Winston in 2016, more than 60 villages have been relocated to reduce people’s exposure and vulnerability to further risks.

The Government of Fiji has developed in 2018, *Planned Relocation Guidelines: A framework to undertake climate change related relocation*, following a six-year-long consultative process with affected communities, government representatives and non-State actors. The Guidelines represent the first national framework on planned relocation and propose to consider planned relocation solutions for affected communities as part of their adaptation strategies to slow-onset events occurring on the territory of Fiji. It is hoped that the Guidelines will support a human rights-based planned relocation process in Fiji and also serve as an inspiration for other governments undertaking relocations in the context of disasters, environmental degradation and climate change.



Children play in the sunset on one of the atolls at the Carteret islands, Papua New Guinea. IOM conducted an assessment of the communities in Carteret Islands to know how their lives are being affected by climate change and how well they are adapting to the changing landscape. © IOM 2016/ Muse MOHAMMED

Vanuatu – Development of a National Policy on Climate Change and Disaster-Induced Displacement

Vanuatu is among the most disaster-prone countries in the world. To address potential forced migration due to disasters, the Government of Vanuatu integrated human mobility considerations in its national climate change adaptation and disaster risk reduction planning. Working closely with the Ministry of Climate Change Adaptation, IOM supported the Government to improve understanding of displacement risks. This led to the integration of mobility considerations into Vanuatu's Climate Change and Disaster Risk Reduction Policy 2016–2030, with provisions such as the need to conduct an evacuation centre baseline study and provide greater support for internally displaced populations. This document formed the basis of the development of a separate National Policy on Climate Change and Disaster-Induced Displacement, which aims at addressing the needs of IDPs, people at risk of displacement, people seeking to relocate away from hazards, internal migrants and informal and peri-urban settlements.

Source: NRC et al., 2018; IOM, 2018e.

In Papua New Guinea, about one fifth of the national territory is vulnerable to flooding, and there has been a record of seven important disasters in the last 15 years, due to hazards such as droughts, flooding, landslides, tsunamis and volcanic eruptions. As a result, an estimated 2,600 people have been relocated from the low-lying Carteret Islands to Bougainville (United Nations Environment Programme, 2014). Other nationals have migrated to New Zealand under the Pacific Access Category programme (New Zealand Immigration).¹⁸ The case of Papua New Guinea reveals the international dimension of the issue of migration linked to climate impacts in SIDS. This needs to be taken into account when developing policies and programmes seeking to address climate migration challenges.

At the same time, internal climate migration needs to remain a focus. For instance, a survey conducted by the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) in Tuvalu reported that 97 per cent of household respondents claimed to have suffered from floods and saltwater intrusions between 2005 and 2015 (ESCAP, 2016). The same study reported that members of approximately three quarters of participating Tuvalu households migrated in the 10 years preceding the 2015 survey, 54 per cent of the migrating households moved

internally. The survey identified the following environmental factors likely to trigger further migration in Tuvalu: sea-level rise, saltwater intrusion, droughts and floods (ibid.).

A better understanding of how climate change intersects with migration, at both internal and international levels, will be key to developing effective wide-ranging policy responses aiming at supporting people to remain in their places of origin, or access safe and regular migration channels.

Finally, the existential threat, the risk of complete disappearance of some SIDS due to sea-level rise opens new questions about the territorial sovereignty of these disappearing island States, as well as the human rights of islanders who could effectively become stateless. Global discussions on the human rights implications need to intensify, and global development frameworks related to SIDS countries need to better address the challenges that climate migration presents. Although the SAMOA Pathway includes a commitment to strengthen contingency planning and provisions for disaster preparedness and response (UN, 2014), including population evacuation and assisting displaced persons, the broader implications of climate change and environmental degradation on migration patterns need to be better addressed.

18 Individuals from Kiribati, Tuvalu, Tonga and Fiji are eligible to apply for the Pacific Access Category Resident Visa to come to New Zealand. If granted, the visa allows recipients to work, live and study in New Zealand indefinitely.

Madagascar is one of the countries most affected by climate change, cyclically ridden by droughts and floods, and battered by cyclones of increased intensity. Many people migrated already and those staying behind have limited access to water, obliging them to walk for kilometres to access a clean source. © IOM 2017/Natalie OREN



CONCLUSION

Climate change and migration are global challenges that translate into specific concerns in LDCs, LLDCs and SIDS. These countries constitute the poorest segment of humanity, and the most vulnerable to climate-related shocks. Building resilience to mitigate the adverse effects of climate change is fundamental for LDCs, LLDCs and SIDS to reduce instances of forced migration. Achieving this goal will necessarily involve increasing access to climate finance and capacity-building resources. It is also critical to acknowledge that planned and managed migration can represent a coping strategy for populations facing grave climate impacts.

Managing migration in the context of climate change represents one of the most urgent and profound current tests for international cooperation

frameworks. To deliver on the Agenda 2030's promise to "leave no one behind", enhanced global, regional and South–South partnerships and cooperation need to be undertaken.

The following recommendations have been developed to support LDCs, LLDCs and SIDS to address the multiple specific challenges they face in terms of migration and climate change. These recommendations are aligned with those developed under the Task Force on Displacement under the United Nations Framework Convention on Climate Change (TFD, 2018), the commitments expressed in the Global Compact for Safe Orderly and Regular Migration (UN, 2018a) and those expressed in the Sendai Framework for Disaster Risk Reduction (UN, 2015b).





RECOMMENDATIONS FOR LEAST DEVELOPED COUNTRIES, LANDLOCKED DEVELOPING COUNTRIES AND SMALL ISLAND DEVELOPING STATES GOVERNMENTS

- (a) Acknowledge that climate change is a driver of migration, displacement and planned relocation, and that human mobility can in turn have impacts on the environment.
- (b) Recognize commitments made under different policy processes that are relevant to climate change and migration, translate them into national actions and pursue the implementation of commitments made across policy processes.
- (c) Acknowledge and refer to agreed relevant principles and rights, negotiated language and existing best practices in terms of migration and climate change and seek to incorporate those principles and rights in other relevant frameworks (such as the midterm review of the SAMOA Pathway).
- (d) Consider adapting, where needed, existing national human mobility policies, strategies, legal frameworks and legislation and/or create new measures to reflect the principles agreed upon at the global level in terms of migration in the context of climate change, notably UNFCCC and the Global Compact for Safe, Orderly and Regular Migration.
- (e) Develop and/or strengthen national policies, strategies and legal frameworks of relevance to systematically include migration and climate change concerns, through a whole-of-government approach coordinated between migration, development, climate and disaster stakeholders. These approaches should seek to:
 - (i) minimize forced and poorly managed forms of human mobility and reduce vulnerabilities;
 - (ii) provide assistance and protection to migrants moving in the context of climate change;
 - and (iii) facilitate migration in the context of climate and environmental changes by fostering regular migration pathways.

- (f) Ensure that all national policies, plans, strategies and legal frameworks related to human mobility in the context of climate change, disasters and environmental degradation are coherent at the national level, and accompanied by solid implementation, monitoring and evaluation mechanisms, as well as multi-year funding.
- (g) Mainstream migration as an adaptation, resilience or coping strategy in relevant national policy frameworks (climate adaptation and mitigation plans, development plans, land and housing planning systems, urban planning, disaster risk management and disaster response).
- (h) Enhance engagement in North–South, South–South and triangular cooperation to effectively address migration in climate change adaptation and development strategies, and improve preparedness and response capacity, in line with the objectives of the Global Compact for Safe, Orderly and Regular Migration.
- (i) Ensure that the potential benefits of migration are analysed and included, whenever relevant, in long-term national adaptation policies, plans or strategies; and create supportive environments that maximize positive outcomes of migration, including for those leaving or returning, and support the positive contributions of migrants to climate action.
- (j) Increase participation in relevant global and regional intergovernmental and multilateral discussions on climate change and migration to ensure the inclusion of the specific concerns of the LDCs, LLDCs and SIDS.
- (k) Encourage the development and sharing of regional solutions and best practices in addressing climate migration via regional bodies and fora, such as the regional consultative processes on migration, the regional political and trade bodies, and the UN regional economic commissions.
- (l) Acknowledge emerging challenges of climate-induced migration and displacement, and emphasize the importance of implementing the Paris Agreement.

RECOMMENDATIONS FOR OTHER STAKEHOLDERS (INTERNATIONAL AND REGIONAL AGENCIES, CIVIL SOCIETY, ACADEMIA, PRIVATE SECTOR)

- (a) Support LDCs, LLDCs and SIDS in their efforts to build internal capacities to address the migration, environment and climate change nexus.
- (b) Support efforts from LDCs, LLDCs and SIDS to develop guidelines or review existing guidelines aimed at integrating migration and climate change considerations in relevant regional and national frameworks, policies and strategies.
- (c) Produce and analyse data on migration and climate change that can guide national policy development and implementation.
- (d) Support the programme development and implementation efforts undertaken at the national level in LDCs, LLDCs and SIDS to respond to climate change and migration challenges and seize opportunities.
- (e) Support efforts from LDCs, LLDCs and SIDS to accelerate, simplify and enhance access to already existing financing mechanisms, such as the Adaptation Fund, the Global Environmental Facility, the Green Climate Fund and the Least Developed Countries Fund.
- (f) Support efforts from LDCs, LLDCs and SIDS in achieving structural transformation to reduce the dependence on commodities that are susceptible to climate change and promote inclusive growth.

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ANNEX

Table 1

Least developed countries (LDCs)			
Africa (33)			
1	Angola	18	Malawi**
2	Benin	19	Mali**
3	Burkina Faso**	20	Mauritania
4	Burundi **	21	Mozambique
5	Central African Republic**	22	Niger**
6	Chad**	23	Rwanda**
7	Comoros*	24	Sao Tome and Principe*
8	Democratic Republic of the Congo	25	Senegal
9	Djibouti	26	Sierra Leone
10	Eritrea	27	Somalia
11	Ethiopia**	28	South Sudan**
12	Gambia	29	Sudan
13	Guinea	30	Togo
14	Guinea-Bissau*	31	Uganda**
15	Lesotho**	32	United Republic of Tanzania
16	Liberia	33	Zambia**
17	Madagascar		
Asia and the Pacific (13)			
1	Afghanistan**	8	Nepal**
2	Bangladesh	9	Solomon Islands*
3	Bhutan**	10	Timor-Leste*
4	Cambodia	11	Tuvalu*
5	Kiribati*	12	Vanuatu*
6	Lao People's Democratic Republic**	13	Yemen
7	Myanmar		
Latin America and the Caribbean (1)			
1	Haiti*		

Notes: * Also a small island developing State (SIDS).

** Also a landlocked developing country (LLDC).

Table 2

Landlocked developing countries (LLDCs)			
Africa (16)			
1	Botswana	9	Malawi*
2	Burkina Faso*	10	Mali*
3	Burundi*	11	Niger*
4	Central African Republic*	12	Rwanda*
5	Chad*	13	South Sudan*
6	Eswatini	14	Uganda*
7	Ethiopia*	15	Zambia*
8	Lesotho*	16	Zimbabwe
Asia (10)			
1	Afghanistan*	6	Mongolia
2	Bhutan*	7	Nepal*
3	Kazakhstan	8	Tajikistan
4	Kyrgyzstan	9	Turkmenistan
5	Lao People's Democratic Republic*	10	Uzbekistan
Europe (4)			
1	Armenia	3	Republic of Moldova
2	Azerbaijan	4	The former Yugoslav Republic of Macedonia
Latin America (2)			
1	Plurinational State of Bolivia	2	Paraguay

Note: * Also LDCs.

Table 3

Small island developing States (SIDS)			
UN Members (38)			
1	Antigua and Barbuda	21	Micronesia (Federated States of)
2	Bahamas	22	Nauru
3	Bahrain	23	Palau
4	Barbados	24	Papua New Guinea
5	Belize	25	Samoa
6	Cabo Verde	26	Sao Tome and Principe*
7	Comoros*	27	Singapore
8	Cuba	28	Saint Kitts and Nevis
9	Dominica	29	Saint Lucia
10	Dominican Republic	30	Saint Vincent and the Grenadines
11	Fiji	31	Seychelles
12	Grenada	32	Solomon Islands*
13	Guinea-Bissau*	33	Suriname
14	Guyana	34	Timor-Leste*
15	Haiti*	35	Tonga
16	Jamaica	36	Trinidad and Tobago
17	Kiribati*	37	Tuvalu*
18	Maldives	38	Vanuatu*
19	Marshall Islands		
20	Mauritius		
Non-UN Members/Associate Members of the Regional Commissions (20)			
1	American Samoa	11	Guadeloupe
2	Anguilla	12	Guam
3	Aruba	13	Martinique
4	Bermuda	14	Montserrat
5	British Virgin Islands	15	New Caledonia
6	Cayman Islands	16	Niue
7	Commonwealth of Northern Marianas	17	Puerto Rico
8	Cook Islands	18	Sint Maarten
9	Curaçao	19	Turks and Caicos Islands
10	French Polynesia	20	US Virgin Islands

Note: * Also LDCs.

For more information on IOM's activities in the area of migration, environment and climate change, please visit the Environmental Migration Portal www.environmentalmigration.iom.int/ or contact:

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