International Organization for Migration

(IOM)

Environmental Migration, Disaster Displacement and Human Security Policy Assessment Tool

Diogo Andreola Serraglio and Stephen Adaawen

March, 2023

Acknowledgements

Table of Contents

Tables

Boxes

Executive Summary

The impacts of ongoing climate change, environmental degradation and disasters are already manifesting across the globe. Aside from the related changes in ecological systems, the effects of extreme weather events and related disasters have been widely identified as often contributing to humanitarian crises and posing threats to the security and socio-economic wellbeing of human populations. Despite the growing concern and corresponding climate action to check the rate of global warming, the spate of climatic changes will continue into the future. As such the associated extreme events and disaster impacts will become increasingly pronounced. This will have severe consequences, in especially vulnerable areas such as Small Island Developing States, as well as countries in the global south. Besides the adverse implications this will have for national economies and human development, the impacts of climate change and disaster may actually erode both environmental and social resilience, as well as undermine existing socio-economic safety nets in the short- to long-term.

Given that the loss of resilience could further heighten the vulnerability of human populations to climate change and hazard risks, it is also acknowledged that climate change and disaster impact could further contribute to mass displacement and sharp increase in human migration within and across national borders. The impact and likely increase in environmental and disaster-related migration undoubtedly raises concerns in regard to the potential of existing national systems and capacity to effectively manage large-scale population movements in the nearest future. At the same time, it is also increasingly acknowledged that climate change and environmental degradation could trigger violent conflicts and, in many instances, may even degenerate into serious political upheavals in especially fragile and resource-stressed states. With countries also still struggling to recover from the impact of COVID-19, it is envisaged that the compounding effect on resilience to climate change, environmental degradation, natural disasters and future pandemics in vulnerable countries would further exacerbate existing socio-economic vulnerabilities This would invariably also undermine human security.

The direct and indirect impacts of extreme weather events, driven by climate change, on communities in the region have been identified as major causes of loss and damage and the large-scale displacement of people. Amidst the climate and disaster risks in the (Eastern) Caribbean, vulnerable populations have not been passive victims who have remained helpless to the impacts. People have often adopted different responses, including migration, to recover from the impacts of climate and natural disasters on livelihoods and wellbeing. As one of the many coping and adaptation strategies, the internal and inter-island migration of people within the Eastern Caribbean and to other States have generally been a feature of the socio-economic and population dynamics of the region. The sustained movement of people in the region has been reinforced by existing regional free movement arrangements within the framework of the OECS and CARICOM. Migration and displacement across the (Eastern) Caribbean are thus not only due to climate and disaster impacts, but driven by a host of complex and interrelated factors.

Nevertheless, the role of climate change in aggravating the severity of hurricanes and other natural hazards sometimes overwhelm local coping and adaptation systems, whilst governments are grappling with the high costs of recovery, food insecurity, and increasing fiscal debts due to the impacts of climate change, environmental degradation and related natural hazards. All these challenges mostly interact with social, economic and political factors in complex ways to exacerbate vulnerability, as well as drive the displacement and forced migration of people in the region. Moreover, the compounding effect of COVID-19 and the corresponding measures, which

were instituted to contain the pandemic across Caribbean States, have further contributed to the loss of livelihoods and the disruption of agricultural food systems, export and import of commodities. The effects have also overwhelmed social safety nets and the already fragile health systems, as well as caused the severe contraction of national economies across the region. As a consequence, governments of the (Eastern) Caribbean are grappling with the challenge of making a recovery from the impact of COVID-19, whilst also concerned about the likely occurrence of hurricanes or climate-related disasters, and the potential of having to deal with the potential large-scale displacement and movement of people within and between their countries.

Whilst the link between climate change, migration and conflict has been a topical issue for security and stability, the threat to human security mostly reflects the risks it poses to livelihoods, health, communities and general wellbeing of people. For those who may be displaced or affected by climate factors or related disasters, migration may offer opportunities as an adaptation strategy. However, disaster displacement or migration can also present insecurities through the loss of livelihoods and incomes, lack of social capital and health challenges. Migration may also erode traditional coping systems and thereby, further increase the vulnerability of already marginalised groups like indigenous people, women, and children, as well as the aged and persons with disabilities. These concerns have informed the need for a more comprehensive and people-centred approach to addressing the multi-dimensional challenges that interact to increase vulnerability to climate and disaster risks in the (Eastern) Caribbean. Thus, mainstreaming the human security approach into national climate action, disaster risk management and national development has the potential to effectively build resilient societies in anticipation of the impact of future pandemics, as well as address the multi-dimensional risks to wellbeing of environmental migrants or persons displaced by disaster impacts.

The conviction is that by focusing on people and addressing the root causes of vulnerability across States in the Eastern Caribbean, it would invariably also translate into safeguarding human security and long-term resilience to the impacts of environmental change and disasters in the region. Addressing the root causes of threats and vulnerability in the (Eastern) Caribbean will thus largely hinge on a thorough audit of existing policies on disaster displacement and environmental migration to take into consideration the different contexts, as well as the dimensions or components of human security (economic, food, health, environmental, personal, community and political). Hence, providing a reference Tool that could be deployed as a gauge would be of essence in ascertaining to what extent existing national policies on disaster displacement, environmental migration and COVID-19 responses are comprehensive and consider the multi-dimensionality of threats.

The 'Environmental Migration and Human Security Policy Assessment Tool' has been developed to facilitate the integration of the human security approach into environmental migration and disaster displacement policies and mechanisms. This Tool has been developed under the auspices of the IOM, the UNTFHS and partners, including: the UNFCCC, OECS Commission and the PDD. As the lead UN Agency on migration, IOM recognises that climate change, environmental degradation and disasters present existential threats and challenges to countries. From a human security perspective, the IOM is committed to a people-centred approach in responding and supporting countries to address climate change, environmental degradation and disaster impacts on human societies. This commitment is based on the conviction that effective migration management can enhance safe and regular migration, as well as provide opportunities for the adaptation of people to climate and environmental change risks and impacts.

The development of the Human Security Policy Assessment Tool and its subsequent piloting across the Eastern Caribbean is part of a Joint Programme (JP) entitled "Promoting a human security approach to disaster displacement and environmental migration policies integrating the COVID-19 pandemic response in the Eastern Caribbean", which is being led by the IOM. The JP is aligned with the United Nation's Global Socio-Economic Response to COVID-19, as well as the Eastern Caribbean Multi-Sectoral Response Plan (MRP) for COVID-19. By adopting a multi-dimensional approach, the MRP aims to support countries in the Eastern Caribbean to scale-up their respective national actions to respond to COVID-19. This is to be realised by containing the pandemic and minimising the socio-economic impact, ensure resilient recovery, as well as the protection and wellbeing of vulnerable groups.

In drawing on the human security approach, the JP seeks to address multi-dimensional challenges in an interlinked manner (COVID-19, disaster, climate change, and displacement) and through a multi-partner approach with the OECS Commission and other regional institutions, national governments, communities, as well as other stakeholders; by ensuring that no one is left behind. The Human Security Tool is already being piloted across 11 selected Eastern Caribbean countries and territories (Anguilla, Antigua and Barbuda, the British Virgin Islands, Commonwealth of Dominica, Grenada, Montserrat, Saint Kitts and Nevis, Saint Lucia, and Saint Vincent and the Grenadines). The expectation is that the insights being gathered from the national assessments would allow for a more comprehensive and human-centred approach to addressing environmental migration and disaster displacement at the national level. That is, to promote the adequate protection of disaster-displaced persons, environmental migrants, and vulnerable communities in the Eastern Caribbean countries from multiple threats (notably with COVID-19 and future pandemics). The long-term goal is for the tool to be scaled-up and deployed in other regions/countries across the globe.

The development of the human mobility and human security policy assessment tool involved a triangulation of different methods and processes. As a start, the process to develop the Tool began with an initial review and compilation of existing or ongoing projects, methodological proposals and good practices relating to development of Tools and indicators focused on the mainstreaming of human mobility in the context of climate change, environmental degradation and disasters into national policy and legal instruments. This allowed for the identification of similar exercises and how they approached or integrated the human security perspective in addressing environmental migration and displacement.

After the initial identification and compilation of existing tools and projects on the topic, the Tool development exercise proceeded with the mapping and compilation of existing goals, guidelines and recommendations related to human mobility in the context of climate change, environmental degradation and disasters in the global agenda. Since 2015, new frameworks for international governance have been set up with a focus on human mobility, such as: the Global Compact for Safe, Orderly and Regular Migration (GCM), the Agenda 2030 for Sustainable Development, the United Nations Framework Convention on Climate Change (UNFCCC) and its Task Force on Displacement, as well as the Sendai Framework for Disaster Risk Reduction 2015-2030. These frameworks have presented opportunities to recognise and reinforce protection and assistance to vulnerable populations that are exposed to natural hazards, climate and/or other environmental risks.

The identified global frameworks provided some reference to examine the main policy and legal instruments on the themes of migration, sustainable development, climate change, and DRR. Indicators were then derived from the goals, guidelines and recommendations identified in these four international frameworks. The motive for the indicators was to allow for an appreciation of the extent to which existing national policy and legal instruments were aligned and consistent with the provisions on acknowledging and/or addressing human mobility in the context of climate change, environmental degradation and disasters. The inherent indicators provided cues or references as to the effective implementation of international frameworks at the national level. In addition, some of the proposed indicators present a broader scope, encompassing enquiries related to the existence of plans, programmes and strategies, as well as their respective contents.

To integrate the human security perspective in the assessment tool, the types of human insecurities and possible root causes were also examined. Uncovering the root causes of threats and people's vulnerabilities enabled the identification of the respective risks and impacts of each of the human security components on individuals and communities (including the human mobility dimension). By understanding the manifestations of each threat on the different components of human (in)security, it was possible to better appreciate the impact of each threat on situations of human mobility in the context of climate change, environmental degradation and disasters. This also facilitated the formulation of a baseline of indicators to be incorporated in the human mobility and human security policy assessment tool to allow for the thorough assessment of the needs, vulnerabilities and capacities of affected individuals and communities.

The 'Environmental Migration and Human Security policy Assessment Tool' is organised in the form of a questionnaire, composed of distinct set of indicators to be applied to national migration, climate change, environment and DRR policy and legal instruments across the selected nine Eastern Caribbean States. The set of indicators that emerged from the recommendations as part of the international frameworks were grouped into three major clusters and/or categories: human mobility, climate change and DRR. This is because the same elements are most often repeated in the different documents from such international frameworks. A fourth cluster was developed, this one presents a list of indicators related to the integration of the human security approach in national policy and legal instruments dealing with situations of human mobility in the context of disasters, climate and/or environmental degradation. This last cluster, which addresses the human security perspective in national policy and legal instruments, is divided into seven sub-sections, each one representing a distinct type of human (in)security that arise from the various forms of human mobility (migration, displacement and planned relocation).

The overall aim is that the Human Security Policy Assessment would provide the basis to mainstream the human security approach into national migration, climate, DRM and development planning, as well as guide the progressive implementation of international commitments through the revision of existing normative instruments and/or adoption of new standards.

1. Introduction

The impacts of ongoing climate change, environmental degradation and disasters are already manifesting across the globe. Aside from being identified as major drivers of observed and projected changes in ecological systems (IPCC, 2022), the effects of extreme climate change-related events and disasters have been widely identified as often contributing to humanitarian crises and posing existential threats to the security and the socio-economic wellbeing of human populations (UN, 2007; Andrijevic and Ware, 2021, IDMC, 2021). The Intergovernmental Panel on Climate Change (IPCC) continues to highlight in its various reports that the globe has warmed at 1.0°C above the pre-industrial (1850-1900) levels at a likely range of 0.8°C – 1.2°C (IPCC, 2018). Despite global climate action to check the rate of global warming, climate change will continue into the future (Arias et al., 2021). This implies that extreme events and disaster impacts will become increasingly pronounced with severe consequences for especially vulnerable areas such as Small Island Developing States (SIDS), as well as countries in the global south (Mycoo et al., 2022).

Extreme events or hazards associated with climate change like floods, droughts and windstorms have also not only become increasingly frequent and severe, but that their duration, spatial impact and damages are now more widespread across all regions (IDMC, 2018; IFRC, 2020). In 2021 alone, the Emergency Events Database (EM-DAT) recorded 432 disasters as compared to the annual average of 357 disasters between 2001 – 2020. Out of these 432 disasters, the 223 were mainly due to floods, followed by storms (121), drought (15), wildfire (19), landslide (14) and extreme temperature (3) (CRED, 2021). These disasters affected over 101 million people, with the loss of up to 10,492 lives and economic damages of up to USD 252 billion recorded (ibid.). To further give an impression on the extent of loss and human displacement in 2021, for instance, the IDMC (2022: 16) recorded a total of 23.7 million new displacements due to disasters across the globe. Out of this total number, 22.3 million were due to the impact of weather-related disasters such as droughts, floods, landslides, extreme temperatures, wildfires and storms (ibid.).

Besides the adverse implications for national economies and human development, the impacts of climate change and disasters may actually erode both environmental and social resilience in the short- to long-term (Brklacich et al., 2010; Adger and Hodbod, 2014). This has drawn widespread international concern on the negative implications for safeguarding human security and ongoing efforts towards sustainable and inclusive development for all (Adger, 2010; Adger et al., 2014; Gemenne et al., 2014; Vivekananda, 2022). This means that the prospect of attaining the objectives and targets set out in international global frameworks such as the 2030 Sustainable Development Goals (SDGs), Global Compact for Migration and Sendai Framework could be undermined. Given that the loss of resilience could further heighten the vulnerability of human populations to climate change and hazard risks, it is also acknowledged that this could further contribute to mass displacement and sharp increase in human migration within and across national borders (Melde et al., 2017; Rigaud et al., 2021). Against this background, the World Bank is projecting that up to 216 million people in six regions[1] could be on the move due to climate change impacts by 2050 (Clement et al., 2021). The expectation is that the potential increase in human mobility would be aggravated by climate change pressures on existing drivers (Foresight, 2011; Afifi et al., 2012).

---

[1]Latin America, North Africa, sub-Saharan Africa, Eastern Europe & Central Asia, South Asia, Eats Asia & the Pacific – this projection is based on a pessimistic scenario with high emissions & unequal development (Clement et al., 2021: 80).

Without recourse to the numbers debate on future displacement and environmental migration (Gemenne, 2011; Ionesco et al., 2017), it is equally important to clarify that migration may not necessarily be an outcome or the only response to the impacts of climate change, environmental degradation and natural disasters (Foresight, 2011). Vulnerable people may choose to stay in their communities despite the perceived risks due to certain factors such as place attachment, effective systems to facilitate recovery from shocks, land tenure issues or cultural and historical ties to homelands (Sobhee and Blocher, 2015; Adams, 2016; Yee et al., 2022). On the other hand, some affected persons may be trapped and unable to move due to the effects of climate change and disasters or the lack of necessary human, financial or social capital (Suckall et al., 2017). It may also be the case that some vulnerable persons may decide to stay and adapt in situ or do nothing (Cubie, 2017).

The impact and likely increase in environmental and disaster-related migration undoubtedly raises concerns in regard to the potential of existing national systems and capacity to effectively manage large-scale population movements in the nearest future. At the same time, it is also increasingly acknowledged that climate change and environmental degradation could trigger violent conflicts and, in many instances, may even degenerate into serious political upheavals in especially fragile and resource-stressed states (Adger et al., 2014; Adaawen et al., 2019; Meade, 2021). In analysing the link between climate variability and violent unrest in Africa, for example, Jones et al. (2017) found that the interaction between climate-induced food insecurity and state vulnerability to shocks was a key mediator on the likelihood of violent unrest. It may thus be argued that the impacts of climate change, environmental degradation or disaster and their potential to trigger conflict may hold true in some contexts. Some studies have alluded to this observation by suggesting the relationship between climate/environmental change and conflict as rather complex and multi-faceted (see Kevane and Gray, 2008; Benjaminsen and Ba, 2009; Raleigh and Kniveton, 2012, Burrows and Kinney, 2016).

Yet, what is apparent and widely acknowledged is that climate change and related natural hazards pose veritable threats to national security (Podesta and Ogden, 2008; UNDP, 2020). The security implications of climate change and disasters have been marked by not only the related conflicts recorded in many places, but also the human suffering, displacement, migration and crises which tend to compromise human security and prospects of sustainable development (Terminski, 2012; Ayuso and Hansen, 2017; Ferris and Weerasinghe, 2020). In many places across the Caribbean, Latin America and sub-Saharan Africa, the impact of rainfall variability, droughts, floods and other disasters has contributed to acute food insecurity and riots, environmental-related farmer – herder conflicts and large-scale population displacements (Fernandes et al., 2012; Cabot, 2017; Aragón and El-Assar, 2018). With countries also still struggling to recover from the impact of COVID-19, it is envisaged that the compounding effect on resilience to climate change, environmental degradation, natural disasters and future pandemics in vulnerable countries would further be compromised. This would invariably also have adverse implications for human security.

1.1 Climate Change, Environmental Migration, Disaster Displacement and Human Security in the Eastern Caribbean

The effects of climate change and disasters on environmental migration and human security have particularly been pronounced in the Eastern Caribbean and other Small Island Developing States (SIDS), where observed changes in rainfall patterns, water scarcity, heatwaves, as well as increase in frequency and severity of hurricanes, flood and drought disasters have continuously affected and posed multiple threats to human populations (Nurse et al., 2014; Taylor, 2017; Mowla, 2021). In particular, the recent 2022 IPCC report identifies that the increase in frequency of tropical cyclones has been a major threat to human life and the destruction of buildings and critical infrastructure in SIDS across the Caribbean and Pacific (Mycoo et al., 2022). Other than the adverse impacts on human populations in SIDS, the projection is also that climate and related changes in the ocean will also affect both marine and terrestrial ecosystem health and services. This would also negatively affect natural and human systems, with implications for wellbeing and human security (ibid). The high vulnerability levels are partially derived by the fact that as Island States, the majority of the population, livelihoods, cities and critical infrastructure in the region are situated within 1.5 kilometres of the coast and as such, remain exposed and vulnerable to climate change risks and natural hazards (Schicklinski and Noorali, 2011).

Generally, extreme weather events and hurricanes are not uncommon features of weather patterns in the Caribbean (Taylor et al., 2012). Analysis of long-term records of disasters in the region show that the Caribbean have long witnessed episodes of extreme weather events and remain exposed to related natural hazards like hurricanes, floods and droughts since the 1900s (Mulcahy, 2006; Maynard-Ford et al., 2008; Mohan and Strobl, 2013; Barclay et al., 2019). But with ongoing climate change, the region has recorded changes in its rainfall patterns, increase in temperatures, as well as increase in frequency and severity of extreme climatic events (Karmalkar et al. 2013; Taylor et al. 2018; CSG, 2020). The direct and indirect impacts of extreme weather events influenced by climate change on communities in the region have been identified as major causes of loss and damage and the large-scale displacement of people (Sou, 2019; Vinke et al., 2020; Wilkinson, 2021). This was particularly evident during the hurricane season of 2017, where Hurricanes Irma, Maria and Harvey together accounted for the displacement of three million people across the Caribbean and the United States of America (IDMC, 2018; CSG, 2020). As one of the countries that was gravely affected by Hurricane Maria (September 2017), for instance, Dominica recorded damages of up to USD 930.9 million and losses of USD 380.2 million, whilst a total of over 30 persons lost their lives and others went missing. Together, the damages and losses that were recorded constituted up to 226 percent of Dominica's Gross Domestic Product (GDP) for 2016 (Government of Commonwealth of Dominica, 2017).

Amidst the climate and disaster risks in the (Eastern) Caribbean, vulnerable populations have not been passive victims who have remained helpless to the impacts. People have often adopted different responses, including migration, to recover from the direct and indirect impacts of climate and natural disasters on livelihoods and wellbeing (IOM, 2017; Barker et al., 2012; Forster et al., 2022). As one of the many coping and adaptation strategies, the internal and inter-island migration of people within the Eastern Caribbean and to other States have generally been a feature of the socio-economic and population dynamics of the region (Thomas-Hope, 2002). The sustained movement of people in the region has been reinforced by existing free movement arrangements within the framework of the Organisation of Eastern Caribbean States Commission (OECS), as well as provisions under the Caribbean Community's (CARICOM) Single Market Economy

(CSME) initiative (Aragón and Mawby, 2019; Francis, 2019). With these regional free movement arrangements, contemporary movements have been characterised by mixed migrations involving the voluntary migration of people for economic reasons, education, tourism, as well as displacement and also the trafficking of people within the region and abroad (Grosfoguel, 2002; ACP, 2014; Aragón et al., 2018). Hence, migration and displacement across the (Eastern) Caribbean are not only due to climate and disaster impacts (Cantor, 2018; Spencer and Urquhart, 2018), but driven by a host of complex and interrelated factors (ACP, 2013; Kelman, 2018).

Nevertheless, the role of climate change in aggravating the severity of hurricanes and other natural hazards sometimes overwhelm local coping and adaptation systems, whilst governments are grappling with the high costs of recovery, food insecurity, and increasing fiscal debts due to the impacts of climate change, environmental degradation and related natural hazards (Schnitter et al., 2018; Mohan, 2017; Wilkinson, et al., 2021). All these challenges mostly interact with social, economic and political factors in complex ways to exacerbate vulnerability, as well as drive the displacement and forced migration of people in the region (Ferdinand et al., 2012; Hamza et al., 2017). Moreover, the compounding effect of COVID-19 and the corresponding measures, which were instituted to contain the pandemic, have further contributed to the loss of livelihoods and the disruption of agricultural food systems, export and import of commodities (OECS Commission, 2020a; Daley et al., 2022). The effects have also overwhelmed social safety nets and the already fragile health systems, as well as caused the severe contraction of national economies (CDB, 2020; Maurice-George, 2020). As a consequence, governments of the (Eastern) Caribbean are grappling with the challenge of making a recovery from the impact of COVID-19, whilst also concerned about the likely occurrence of hurricanes or climate-related disasters, and the potential of having to deal with the potential large-scale displacement and movement of people within and between their countries (OECS Commission, 2020a; Byron et al., 2021).

In this light, existing national measures to address the mobility dimensions of climate change, environmental degradation, disaster response and management across Eastern Caribbean States would have to transcend the seeming macro-level focus, to deploying a comprehensive approach that focuses on addressing the cross-cutting challenges and threats to vulnerable populations in safeguarding human dignity, and ensuring access to basic needs, recognition of human rights and freedom (Gasper, 2012; CDB, 2020; UNTFHS, 2021a). It is envisaged that this would empower vulnerable populations, enhance long-term resilience, promote greater environmental sustainability and inclusive development for the future (Barnett et al., 2010; UNTFHS, 2021b). Addressing the root causes of threats and vulnerability in the Eastern Caribbean will thus largely hinge on a thorough audit of existing policies on disaster displacement and environmental migration to take into consideration the different contexts, as well as the dimensions or components of human security (economic, food, health, environmental, personal, community and political) (see UNTFHS, 2016: 20).

Hence, providing a reference tool that could be deployed as a gauge would be of essence in ascertaining to what extent the existing national policies on disaster displacement, environmental migration and COVID-19 responses are comprehensive and consider the multi-dimensionality of threats. It would also help to ascertain in how far these measures are in line with existing global frameworks that project a human-centred approach to addressing the climate change and disaster impacts. This would contribute to mainstreaming human security into disaster response and national development planning in enhancing long-term resilience and sustainable development in the region.

1.2 Scope: Environmental Migration, Disaster Displacement and Human Security Policy Assessment Tool

The assessment Tool to facilitate the integration of human security approach into environmental migration and disaster displacement policies and mechanisms is being developed under the auspices of the IOM, UNTFHS and partners, including: the UNFCCC, OECS Commission and the PDD. As the lead UN Agency on migration, IOM recognises that climate change, environmental degradation, and disasters present existential threats and challenges to countries. From a human security perspective, the IOM is committed to a people-centred approach in responding and supporting countries to address climate change, environmental degradation and disaster impacts on human societies (IOM, 2014). This stems from its conviction that effective migration management can enhance safe and regular migration, as well as provide opportunities for the adaptation of people to climate and environmental change risks and impacts.

In its Institutional Strategy on Migration, Environment and Climate Change (MECC) 2021-2030, for example, the IOM details its vision to "support States in their efforts to achieve orderly, safe, responsible and regular international migration, and to ensure that all people on the move and those internally displaced by the adverse impacts of climate change, environmental degradation, and disasters due to natural hazards, are assisted and protected" (IOM, 2021: 2). The six principles[2] outlined in the MECC strategy, and also aligned with other notable global frameworks[3], basically seek to guide the IOM and to strengthen its capacity to develop and implement a comprehensive, evidence- and right-based approach to addressing challenges posed by environmental degradation, climate change and disasters due to natural hazards, for the benefit of migrants and societies (ibid.). The goal is to support States, migrants and relevant stakeholders to develop evidence-based policies and programmes that are effective and innovative for the wellbeing of migrants and societies.

In line with this commitment and other international frameworks on disaster risk reduction, human mobility and sustainable development, the IOM is implementing a Joint Programme (JP) entitled "Promoting a human security approach to disaster displacement and environmental migration policies integrating the COVID-19 pandemic response in the Eastern Caribbean". The JP is aligned with the United Nation's Global Socio-Economic Response to COVID-19, as well as the Eastern Caribbean Multi-Sectoral Response Plan (MRP) for COVID-19. By adopting a multi-dimensional approach, the MRP aims to support countries in the Eastern Caribbean to scale-up their respective national actions to respond to COVID-19 (UN and OECS, 2020). This is to be realised by containing the pandemic and minimising the socio-economic impact, ensure resilient recovery, as well as the protection and wellbeing of vulnerable groups (ibid.).

To this end, the JP aims to address the challenges that COVID-19 exposes in relation to climate change, environmental degradation and disaster-related human mobility (incl. immobility) in the Eastern Caribbean through the promotion of the human security approach. By adopting the human security approach, the JP seeks to address an ongoing multi-dimensional challenge in an interlinked manner (COVID-19, disaster, climate change, and displacement) and through a multi-partner approach with the OECS Commission and other regional institutions, national

---

[2]These six guiding principles include: 1) committing to a rights-based approach; 2) promoting an innovative and effective approach to migration governance and practice; 3) adopting a gender responsive approach; 4) implementing a migrant-centred and inclusive approach to enhance positive outcomes; 5) promoting a human security approach; & 6) supporting policy coherence and enhancing partnerships.

[3]Such as: 2030 Agenda on Sustainable Development, the Paris Agreement on Climate Change, the Global Compact for Safe, Orderly and Regular Migration, the Sendai Framework for Disaster Risk Reduction, and the Nansen Agenda for the Protection of Cross-Border Displaced Persons in the Context of Disasters and Climate Change.

governments, communities, as well as other stakeholders, ensuring that no one is left behind. To this end, the project is hereby guided by the following specific objectives: i) develop an assessment tool to integrate the human security framework in environmental migration and disaster displacement policies and mechanisms; ii) apply the assessment tool in assessing national policy frameworks and strategies identified across the nine targeted Eastern Caribbean countries and territories; iii) identify opportunities and weaknesses, as well as develop tailored recommendations in relation to the context of each country.

After the development and rigorous review of the environmental migration and disaster displacement human security tool, it is being deployed to assess national policies of the 11 Eastern Caribbean countries of focus of this JP, namely: Anguilla, Antigua and Barbuda, the British Virgin Islands, Commonwealth of Dominica, Grenada, Guadeloupe, Martinique, Montserrat, Saint Kitts and Nevis, Saint Lucia, and Saint Vincent and the Grenadines. The expectation is that through the application of the human security approach, it would allow for a more comprehensive and human-centred approach to addressing environmental migration and disaster displacement at the national level. That is, to promote the adequate protection of disaster-displaced persons, environmental migrants, and vulnerable communities in the Eastern Caribbean countries from multiple threats (notably with COVID-19 and future pandemics). The goal is for the tool to be scaled-up and deployed in other States across the Caribbean and in other regions across the globe.

2. Towards an Integrated Response to Environmental Migration and Disaster Displacement: The Human Security Approach

At the international level, there is a growing commitment on the part of national governments to promote safe, orderly and regular migration, and to build better and resilient societies for the benefit of all (UNGA, 2012a, 2019; UNEP, 2021). This has been reflected in ongoing efforts at addressing the human mobility[4] dimensions of climate change, environmental degradation and disasters, as well as to recover from the impact of COVID-19 across countries (IOM, 2018; Newland, 2020). However, the evidence also points to the existence of multiple threats to human societies and wellbeing (Wall et al., 2014). In particular, climate change poses as a threat multiplier that negatively affect or aggravate multiple risks, which mostly interact with existing socio-economic and political factors to further undermine human security (Huntjens and Nachbar, 2015; Day and Caus, 2020; Vivekanada, 2022). Whilst alluding to the complexity and nature of climate change impact on human security, a distinction between the different dimensions of human mobility (environmental migration) in the context of climate change, environmental degradation and related disasters will suffice in providing some clarity on the environmental change – migration nexus, and the need for an integrated approach that takes into consideration the human security implications.

---

[4] Generic term used to describe all forms of environmental migration including disaster displacement as outlined by the UN Advisory Group on Human Mobility (see Box 1).

2.1 Understanding the Environmental Change–Migration Nexus and Outcomes

The impact of climate change, environmental degradation and related disasters on migration has garnered widespread attention in both policy and scientific discussions (Ionesco et al., 2017; Flavell et al., 2020). This growing interest stems from the recognition that well-managed migration could provide or serve as a viable option for climate change adaptation and resilience in many contexts (Adger et al., 2014; Afifi et al., 2015; Melde et al., 2017). Against this background, there have been sustained efforts to mainstream issues of climate or environmental migration into climate action, migration governance and national development planning (Wilkinson et al., 2016; IOM, 2018). As part of its work, for instance, the United Nations Advisory Group on Climate Change and Human Mobility has identified climate change as a driver of human mobility (environmental Migration) and that the associated impacts will likely increase the displacement of vulnerable populations across the globe (Warner et al., 2013; UN Advisory Group on Climate Change and Human Mobility (2014). In line of with Paragraphs 14(f) of the Cancun Decision 1/CP.16 and Paragraph 7(a) (vi) of the Doha Decision 3/CP.18, the United Nations Advisory Group on Climate Change and Human Mobility have made the call for enhanced understanding, coordination and cooperation on the nature and impact of climate change on displacement, migration and planned relocation at different scales (UNFCCC, 2011: 5, 2012: 23). As part of its recommendations during COP 20 (Lima, Peru), the United Nations Advisory Group on Climate Change and Human Mobility distinguished between the different

> **Box 1 Human Mobility in the context of Climate Change and Related Disasters:**
> The UN Advisory Group on Climate Change and Human Mobility (2014), conceptualises human mobility in the context of climate change and related disaster to include three dimensions (migration, displacement and planned Relocation).
> **Displacements:** refers to situations where people are forced to leave their homes or places of habitual residence.
> **Migration**: this encompasses movements that are predominantly voluntary.
> **Planned Relocation:** relates to an organised relocation, ordinarily instigated, supervised and carried out by the State with the consent or upon the request of the community.
>
> **Source:** UN Advisory Group on Climate Change and Human Mobility (2014:3).

dimensions of human mobility in the context of climate (Box 1). Following this distinction, the call was further made during COP 21 for inclusion of a reference to human mobility in the text agreement and COP decision, and to recognise and mainstream human mobility in policies that manage the full range of societal impacts of climate change (mitigation, adaptation, and loss and damage policies) (UN Advisory Group on Climate Change and Human Mobility, 2015:4). Whilst there has been relative progress in conceptualising and mainstreaming human mobility into DRR, climate change, environment and national development policies and plans, the call for enhanced understanding and distinction between the different dimensions of human mobility (environmental migration) in a way also signifies the complexity and interaction of diverse factors that come into play in influencing human mobility decisions and outcomes in the face of climate change, environmental degradation and disasters (Foresight, 2011; Black et al., 2013). These intervening factors operate at macro, meso and micro levels to influence human mobility decision and outcomes.

What this understanding also suggests is that the decision to move is largely dependent on the context, nature of the impact or risk and circumstances of the affected person. It is also to be highlighted that environmental or climate-related human mobility can be triggered by sudden or progressive slow onset changes in climate or environment, which affect populations and thereby forcing them to move (Ionesco et al., 2017). The movement can range from short-term movements, to sudden movement or may even become long-term/permanent. Further, it should also be noted

that environmental, climate and disaster-related human mobility is mostly internal, but can be cross-border to neighbouring countries (Henry, et al., 2004; Chen and Mueller, 2019). As highlighted earlier, vulnerable or affected persons may wish to move because of climate change, environmental degradation or disaster impacts, but may be unable to do so due to constraints. These constraints could be due to impacts of climate and environmental change or due to the lack of capital to move as a response and thereby, remain trapped. Others may choose to stay either due to place attachment and other socio-economic reasons, or due to adequate institutional provisions to enhance resilience, response and recovery. At the same time, vulnerable people may choose to stay and adapt in situ or do nothing (Cubie, 2017; Yee et al., 2022).

2.2 Environmental Migration, Disaster Displacement and Human Security: An Integrated Approach

Whilst the link between climate change, migration and conflict has been a topical issue for security and stability (Gemenne et al., 2014), the threat to human security mostly reflects in the risks it poses to livelihoods, health, communities and general wellbeing of people (Barnett and Adger, 2007; Brklacich et al., 2010; Mathew and Upreti, 2010; Westbury, 2022). For those who may be displaced or affected by climate factors or related disasters, migration may offer opportunities as an adaptation strategy (Piguet and Laczko, 2014). However, disaster displacement or migration can also present insecurities through the loss of livelihoods and incomes, lack of social capital and health challenges. Migration may also erode traditional coping systems and thereby, further increase the vulnerability of already marginalised groups like indigenous people, women, children, persons with disabilities and elderly persons (Elliot, 2011; Adger et al., 2014). As witnessed in the aftermath of Hurricane Maria in Dominica, for instance, inadequate resources and capacity to facilitate disaster response and recovery could actually impoverish affected populations (Ayuso and Hansen, 2017). Although there have since been much progress in formulating governance frameworks such as the Climate Resilience and Recovery Plan (CRRP) (2020-2030), National Resilience Development Strategy 2030 (NRDS), the Dominica Sustainable Public Procurement Action Plan (Government of Commonwealth Dominica, 2020), the lessons that could be drawn from the impact of Hurricane Maria and other experiences of disaster response is that the lack of adequate capacity, resources and planning could further undermine the welfare of vulnerable and affected persons and hence, lead to post-disaster displacement and dire consequences for human security.

In effect, addressing the human mobility dimensions of climate change, environmental degradation and disasters, as well as building resilient societies in anticipation of the impact of future pandemics would require a holistic approach (Stojanov et al., 2021). This would entail adopting a human security approach that is people-centred and considers the cross-cutting socio-economic, security and environmental issues that act in tandem with climate change and disasters to compromise human security and prospects of inclusive and sustainable development (UNTFHS, 2016; Westbury, 2022). The multifaceted and complex nature of challenges to human welfare in the face of climate change and related disasters has given impetus to the growing consensus that there is the need for an integrated approach to addressing the insecurities confronting vulnerable people and hence, the application of the human security approach.

A people-centred approach in addressing the multiplicity of factors undermining human security had long been endorsed as key to sustainable human development in the 1994 Human Development Report (UNDP, 1994). The propositions that were made to strengthen human

security undoubtedly triggered the shift in focus and in charting a new paradigm for human development. As explained by the Commission on Human Security (2003), human security focuses on protecting the fundamental freedoms, which will allow for enhancing people's capabilities and fulfilment of their aspirations as profoundly advanced in Sen's (1999) conception of development as the real freedoms that people enjoy. It relates to the protection of human lives, human rights and dignity, and enhancing the freedom and capabilities of people to be able to make informed decisions and to participate in initiatives that safeguard and improve their wellbeing (O'Brien et al. 2008; Gasper, 2012; Bell, 2013).

Following these earlier explications, human security in the context of climate change, environmental degradation and disasters may thus be conceived as "a condition that exists when the vital core of human lives is protected, and when people have the freedom and capacity to live with dignity" (Adger et al., 2014: 759). The human security approach thus goes beyond conventional notions of national security to focusing on people and addressing the multiplicity of socio-cultural, political and environmental factors that interact and work cumulatively to threaten their very existence and prospects for inclusive growth and development. It provides a comprehensive framework that can contribute to enhancing resilience to climate change, environmental degradation, disasters, as well as building inclusive societies by tackling the root causes of insecurities[5] for the different groups of people.

The relevance of the human security approach to addressing crises may have further been reinforced with the adoption of the 2012 UN General Resolution 66/290 on human security. As highlighted under Paragraph 3 of the resolution, the UN Member States widely acknowledge that the human security approach would greatly "assist Member States in identifying and addressing widespread and cross-cutting challenges to the survival, livelihood and dignity of their people" (UNGA, 2012b: 1). The cardinal principles and promise of the human security approach, as detailed in Paragraph 3(b), lies in the fact that it is people-centred, comprehensive, context-specific, prevention-oriented, and allows for the protection of all people and all communities (ibid.). It underscores the right of people to live in freedom and dignity and free from poverty and despair. The potential of the human security approach in providing a comprehensive framework to tackling the multidimensionality of insecurities has seen its growing integration as a Tool in global migration governance and development frameworks.

With specific reference to the impact of climate change, environmental degradation and natural disasters on human mobility, there are ongoing efforts in regard to addressing the negative implications for human security and sustainable development. The Global Compact for Safe, Orderly and Regular Migration (GCM), which was adopted in 2018 by UN Member States, has duly acknowledged the likely impact of ongoing changes in environmental, demographic, and socio-economic conditions on migration (UNGA, 2019). As outlined in Objective 2, the GCM has advocated the need for actions to minimise the negative drivers and structural factors that tend to push people to leave their places or countries of origin. These actions are to be facilitated through the collection and utilisation of accurate and disaggregated data for informed policies, and to effectively address and reduce all vulnerabilities in migration (Objective 1).

Under Objective 2(k), the GCM calls for the harmonisation and development of "approaches and mechanisms at all levels in addressing the vulnerabilities of persons affected by natural disasters, by ensuring that they have access to humanitarian assistance that meets their essential needs with

---

[5]Mainly: economic, political, food, health, environmental, personal and community insecurities.

full respect for their rights wherever they are, and by promoting sustainable outcomes that increase resilience and self-reliance, taking into account the capacities of all countries involved" (UNGA, 2019: 10). The call to consider the basic needs and rights of populations in addressing vulnerabilities to disasters can thus be seen to largely converge with the advocacy for a human security approach to disaster response and to address the human mobility dimensions of climate change, environmental degradation and disasters. The need to adequately make provisions for persons on the move due to climate change, environmental degradation, disasters, and in the context of other crisis on compassionate and humanitarian grounds, have also been highlighted in objectives 5 and 7 respectively.

Besides the objectives set out by the GCM, several other global frameworks such as the Sendai Framework for Disaster Risk Reduction (2015-2030), the Nansen Protection Agenda and the Guiding Principles on Internal Displacement are all focused on climate-related disaster, displacement and migration governance (UN-OCHA, 2004; The Nansen Initiative, 2015; UNISDR, 2015). The Sendai Framework, for instance, provides the guidance to facilitate the significant reduction of disaster risk and loss of lives, livelihoods and health, as well as address the socio-economic, physical and environmental aspects of loss and damage by 2030. As stated in Priority 4, the Sendai Framework highlights the importance of effective disaster response and long-term resilience by outlining the commitment to "enhancing disaster preparedness for effective response and to "build back better" in recovery, rehabilitation and reconstruction" (UNISDR, 2015: 21). It clarifies further that empowering women and persons with disabilities, and promoting gender equality by allowing for inclusion and participation in disaster risk reduction and response would be pivotal to building back better and resilient communities for future disasters and other risks such as global pandemics or economic shocks (ibid.).

The importance of the human security approach to addressing disaster displacement and environmental migration has similarly been echoed as critical to achieving the Agenda 2030 for sustainable development. Under SDG 13.1, the outlined objective is to strengthen resilience and adaptive capacities of countries to climate-related natural hazards and disasters. More specifically, SDG 13.2 advocates the integration or mainstreaming of climate measures in national policies, strategies and planning (UNGA, 2015a). Objective 13.b aims to promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and SIDS including focusing on women, youth and local and marginalised communities. The goal is to support governments in doing so by tracking the number of countries that have progressed in implementing comprehensive and well-managed migration, as well as DRR policies.

Adopting a holistic approach to addressing the human security implications of climate change, environmental degradation and disaster risks, and the impact of COVID-19 in the Eastern Caribbean is thus of essence in enhancing resilience and tackling the root causes of vulnerability in communities (Ferdinand, et al., 2012; Forster, 2022; Vivekananda, 2022). However, a recent assessment of existing national migration, climate and disaster policy frameworks across ten Eastern Caribbean states revealed a limited integration of the human mobility dimensions of climate change and natural disasters (Aragón and El-Assar, 2018). The development of the assessment tool to assess the integration of human security in national migration, climate change and DRR policies and COVID-19 response would help to gauge in how far the human security approach is being applied in addressing the multidimensional threats to wellbeing and sustainable development in the region. It is envisaged that the tool would provide pointers in facilitating the development of human security and COVID-19 sensitive national climate, disasters and human

mobility governance frameworks that could help enhance ongoing efforts to comprehensively address cross-border displacement and evacuations in the Eastern Caribbean.

3. Methodology: Developing the Human Security Assessment Tool with a focus on Environmental Migration and Disaster Displacement

The process to develop the Environmental Migration and Human Security Policy Assessment Tool involved a triangulation of different methods and processes. As a start, the Tool development process began with an initial review and compilation of existing or ongoing projects, methodological proposals and good practices relating to development of Tools and indicators focused on the mainstreaming of environmental migration and disaster displacement into national policy and legal instruments (See Annex 2). This allowed for the identification of similar exercises and how they approached or integrated the human security perspective in addressing environmental migration and displacement. Some of the observations that were made about the assessment Tools (projects)[6] that had been identified included: (a) they addressed the distinct dimensions of human mobility (migration, displacement and/or planned relocation); (b) most of them were mainly aimed at minimising or stemming displacement, whilst facilitating regular migration pathways or promoting dignified planned relocation processes in the context of climate change, environmental degradation and disasters; (c) some of them were developed to support the effective implementation of international governance frameworks that are focused on addressing the topic; and (d) most were often operationalised by applying specific set of checklists, criteria, indicators or questions (See Annex 2). Most often, the human security perspective featured in an indirect and/or implicit manner in the set of indicators adopted by the respective projects or Tools identified, without clear provisions on how to apply the principles of human security perspective.

After the initial identification and compilation of existing Tools and projects on the topic, the Tool development exercise proceeded with the mapping and compilation of existing goals, guidelines and recommendations related to human mobility in the context of climate change, environmental degradation and disasters in the global agenda. Since 2015, new frameworks of international governance have been set up around human mobility. These frameworks have allowed and presented opportunities to recognise and reinforce protection and assistance to vulnerable populations that are exposed to natural hazards, climate and/or other environmental risks. As highlighted earlier, there has been relative progress in acknowledging and mainstreaming the linkages between human mobility, climate change and environmental degradation through the adoption of global frameworks such as: (a) the Global Compact for Safe, Orderly and Regular Migration (GCM); (b) the Agenda 2030 for Sustainable Development; (c) the United Nations Framework Convention on Climate Change (UNFCCC) and its Task Force on Displacement, as well as (c) the Sendai Framework for Disaster Risk Reduction 2015-2030.

The aforementioned global frameworks provided some guidance to examine the main policy and legal instruments on the main themes of: (a) migration, (b) sustainable development, (c) climate change, and (d) disaster risk reduction (DRR). Indicators were then derived from the goals,

---

[6]These are: (i) Implementing Global Policies on Environmental Migration and Disaster Displacement in West Africa (ECOWAS, IOM, PDD & UNHCR, *ongoing*); (ii) Implementing the Commitments Related to Addressing Human Mobility in the Context of Disasters, Climate Change and Environmental Degradation – A Baseline Analysis Report Under the Global Compact for Safe, Orderly and Regular Migration (IOM, NRC & GIZ, 2022); (iii) Addressing Disaster Displacement in Disaster Risk Reduction Policy and Practice: a Checklist (NRC, PDD & UNDRR, 2020); (iv) Words Into Action – Disaster Displacement: How to Reduce Risk, Address Impacts and Strengthen Resilience (NRC, PDD & UNDRR, 2019); (v) A Toolbox: Planning Relocations to Protect People from Disasters and Environmental Changes (IOM & UNHCR, 2017); (vi) Guidelines to Protect Migrants in Countries Experiencing Conflict or Natural Disasters (MICIC, 2016); and (vii) The Migration Governance Indicators (IOM, 2015).

guidelines and recommendations identified in these four international frameworks. This allowed for an appreciation of the extent to which existing national policy and legal instruments were aligned and consistent with the provisions on acknowledging and/or addressing human mobility in the context of climate change, environmental degradation and disasters. The inherent indicators provided cues or references as to the effective implementation of international frameworks at the national level. In addition, some of the proposed indicators present a broader scope, encompassing enquiries related to the existence of plans, programmes and strategies, as well as their respective contents. The Agenda 2030 and the Sendai Framework, for instance, respectively outline specific sets of indicators to evaluate the implementation of their goals and priority actions.

3.1 Aim and Objectives of the Environmental Migration, Disaster Displacement and Human Security Policy Assessment Tool

As highlighted in the foregoing discussion, the Environmental Migration, Disaster Displacement and Human Security Policy Assessment Tool is thus based on the development of indicators to ascertain the compliance of national policy and legal instruments. It outlines indicators aimed at examining the alignment of national normative instruments with international goals, guidelines and recommendations on human mobility in the context climate change, environmental degradation, disasters and related topics. The aim is that the Human Security Policy Assessment would provide the basis to guide the progressive implementation of international commitments through the revision of existing normative instruments and/or adoption of new standards.

More precisely, these indicators will serve to: (i) identify gaps in national policy and legal instruments; (ii) point out inconsistencies between national policy and legal instruments and international goals, guidelines and recommendations; (iii) detect good practices and normative instruments that can be enhanced at the national level, as well as (iv) assist States in structuring national policy and legal frameworks on human mobility, disasters, climate change and environmental degradation from the human security perspective.

To integrate the human security perspective in the assessment tool being developed, the types of human insecurities and possible root causes were also examined. Uncovering the root causes of threats and people's vulnerabilities enabled the identification of the respective risks and impacts of each of the human security components on individuals and communities (including the human mobility dimension). By understanding the manifestations of each threat on the different components of human (in)security, it was possible to better appreciate the impact of each threat on situations of human mobility in the context of climate change, environmental degradation and disasters. This also facilitated the formulation of a baseline of indicators to be incorporated in the human mobility and human security policy assessment tool to allow for the thorough assessment of the needs, vulnerabilities and capacities of affected individuals and communities.

3.2 Indicators Linked to the Global Compact for Safe, Orderly and Regular Migration

As earlier highlighted, the Global Compact for Safe, Orderly and Regular Migration (GCM) has acknowledged and made provisions to address the impact of disasters, climate change and environmental degradation on human mobility. In objective 2, for instance, the GCM acknowledges the impacts of climate change as drivers of migration. It focuses on mapping and developing strategies to minimise the effects of environmental factors on the decision to move. Whereas Objective 5(g) calls on States to "[d]evelop or build on existing national and regional practices for admission and stay of appropriate duration based on compassionate, humanitarian or

other considerations for migrants compelled to leave their countries of origin owing to sudden-onset natural disasters and other precarious situations [...]"; Objective 5(h) requests States to "[c]ooperate to identify, develop and strengthen solutions for migrants compelled to leave their countries of origin due to slow-onset natural disasters, the adverse effects of climate change, and environmental degradation […]" (UNGA, 2019: 13). Furthermore, Objective 23 commits states to increase international and regional cooperation in areas from where irregular migration originates due to consistent impacts of climate change and disasters (ibid.: 32). The main recommendations of the GCM on the topic, which have specifically provided reference for the development of the human mobility and human security policy assessment tool are outlined in the Table 1 (see Annex 1).

With the development of indicators on human mobility in the context of disasters, climate change and environmental degradation derived from the GCM, specific recommendations addressing the topic were selected (see Table 1 – Annex 1). These recommendations have mainly been outlined in objectives 2 and 5 of the GCM. Nevertheless, the process also considered recommendations related to the subject but were not explicitly stated. For instance, the recommendations linked to migrants in crisis situations listed in Objective 7 were considered. Aside from the GCM, the OECS Policy on Rights Contingent on the Right to Freedom of Movement within the Economic Union is also worthy of note (OECS Commission, 2015). As part of its provisions in outlining the right to 'hassle-free' movement of citizens and of Members States and their dependents, the policy reiterates the provisions of the Revised Treaty of Basseterre (RTB), and the core values of the OECS Social Safety Net and Social Protection Framework (OECS Commission, 2020b), by indicating right to social security, access to resources, right to employment and education in the face of vulnerabilities, adversities or crisis (OECS Commission, 2015).

The recommendations outlined in the GCM and consideration of the provisions of the OECS Policy on Contingent Rights resulted in the development of indicators that have subsequently been employed in the human mobility and human security policy assessment Tool (Table 2 - Annex 1). It is envisaged that these indicators will enable countries to assess the extent to which they are integrating or making provisions to address environmental migration and disaster displacement in their national policy, legal instruments and national development plans.

3.3 Indicators Linked to Agenda 2030 for Sustainable Development

Endorsed by the United Nations General Assembly (UNGA) through Resolution No. 70/1 of 2015, the Agenda 2030 is the outcome of the processes that took place during the United Nations Conference on Sustainable Development, with the aim to revise and update the Millennium Development Goals (MDGs).[7] In short, Agenda 2030 calls for the protection of all human beings, environmental preservation and the promotion of peace by providing guidance to international and national policies. In addition to presenting 17 Sustainable Development Goals (SDGs), Agenda 2030 lists 169 targets which together set an integrated vision of the three dimensions of sustainable development: the economic, social and environmental (UNGA, 2015b). The SDGs guide global actions, as well as connecting recommendations adopted by distinct policy and legal frameworks.

---

[7]The MDGs followed the adoption of the United Nations Millennium Declaration and were adopted by all 191 United Nations Member-states in 2000. The document was composed of 08 goals and 22 targets that, once implemented at the international and national levels, would foster human development by 2015.

In contrast to the MDGs, migration processes have been considered as part of the new goals for sustainable development (UN-DESA, 2015). Besides the request for cooperation from states to facilitate safe, orderly, regular and responsible migration and mobility of people, through the implementation of planned and well-managed migration policies, the Agenda 2030 plan of action identifies the topic as a "multidimensional reality of major relevance" for the achievement of the SDGs (UNGA, 2015b). In particular, the distinct dimensions of (im)mobility link to Agenda 2030 in the context of: (i) respect for the human rights of those subjected to (im)mobility, regardless of their legal *status*; (ii) attention to the vulnerable situations faced by internally displaced persons, migrants and refugees; (iii) acknowledgment of the positive contributions that migration processes can offer to sustainable development; (iv) need for international cooperation to address humanitarian crisis; as well as (v) the strengthening of the resilience of communities hosting refugees and enhanced strategies to enable the return of migrants to their country of origin (UN-DESA, 2015).

Despite the lack of a specific SDG addressing the distinct forms of environmental migration, references to the migration processes have been made in nine out of the 169 targets.[8] Regarding the migration – climate and/or environmental change nexus, SDGs 10, 11 and 13 are worthy to highlight. Specifically, SDG 10 on reduced inequalities includes a dedicated target (10.7) on the facilitation of orderly, safe, and responsible migration and mobility of people, including through implementation of planned and well-managed migration policies. SDG 11[9] seeks to alleviate the risk of disasters and their human impacts. To this end, it recommends the development of policies and other normative instruments related to DRR and management, as well as mitigation and adaptation to the impacts of climate change. It thus aligns the Agenda 2030 to the goals outlined under the Sendai Framework for Disaster Risk Reduction (2015-2030). In turn, SDG 13[10] tackles the impacts of climate change by advocating the integration of effective measures into national policies, strategies and planning. It also seeks to strengthen resilience and adaptive capacity to climate risks through improvements in education, encouraging "awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning" (UNGA, 2015b: 23).

Even though (im)mobility has been associated with DRR and climate change, the Agenda 2030 does not explicitly refer to (forced) population movements due to disasters, climate change and environmental degradation. Whereas (forced) population movements in such contexts can impact the achievement of the SDGs, they can also contribute to reducing the risk of displacement. Thus, the inclusion of the topic in climate adaptation measures, DRR strategies, as well as in SDGs implementation mechanisms is vital. Table 3 (Annex 1) presents the main targets established within this framework that may be considered relevant to addressing human mobility in the context of disaster, climate change and environmental degradation.

The governance framework that has been structured around the Agenda 2030 is based on voluntary and progressive goals with respective targets. Nonetheless, there is a seeming concrete commitment on the part of governments to achieving targeted results or outcomes. What this implies is that such goals and targets are not merely programmatic content.[11] Moreover, as the

---

[8]See Target 3.c (SDG 3), Target 4.b (SDG 4), Target 5.2 (SDG 5), Targets 8.7 and 8.8 (SDG 8), Targets 10.7 and 10.c (SDG 10), as well as Targets 16.2 and 16.9 (SDG 16) of the Agenda 2030.
[9]Make cities and human settlements inclusive, safe, resilient and sustainable.
[10]Take urgent action to combat climate change and its impacts.
[11]This study does not intend to examine the whole SDGs implementation and monitoring process, but only the aspects surrounding the integration of indicators associated with the human (im)mobility dimension in SDGs 11 and 13.

implementation of the Agenda 2030 relies on State actions, the monitoring of the efforts undertaken and developments achieved at the national level is critical. Hence, effective results require adjustments in national policy and legal frameworks, which must be aligned with international guidelines, such as the SDGs.

In order to translate the concrete actions, a monitoring and review process built upon a set of indicators has been put in place. In 2015, the UN Statistical Commission established the Inter-Agency and Expert Group on SDG Indicators (IAEG-SDGs) to define the criteria for the implementation and monitoring of the 17 SGDs at the global level. As a result, the SDGs Global Indicators Framework was adopted in 2017 by UNGA through Resolution No. 71/313 (UNGA, 2017a). The SDGs Global Indicators Framework is a voluntary instrument consisting of 230 global indicators that were initially revised in 2020. The next round of revisions will take place in 2025.[12] The evaluation process has been substantiated in annual reports that correlate the global indicators to the data produced by States.[13] It is thus possible to evaluate the incorporation of issues such as DRR and climate change – SDGs 11 and 13, respectively – at the national level. Table 4 (Annex 1) outlines the monitoring indicators that can be associated with human mobility in the context of disasters, climate change, and environmental degradation.

As shown in Table 4 (Annex 1), the lack of specific global indicators to adequately and comprehensively assess the number of people displaced by disasters is to be noted. By setting a list of global indicators related to DRR, it is also observed that the criteria associated with the need to adopt measures to prevent and manage situations of mobility (i.e. displacement and/or evacuation) were overlooked. Such gaps tend to hamper not only the progress in stemming human displacement, but also the examination of how national policy and legal instruments address the topic.

With regard to the absence of global indicators capable of determining the number of individuals forced to leave their homes or places of usual habitation due to disasters, it is to be noted that evacuees, displaced and/or persons relocated have been included in the broader concept of "people directly affected by disasters" (UNGA, 2016). The inclusion of these distinct situations of mobility in a single general definition, which also encompasses other forms of mobility, does not allow for the development of accurate data on each of these categories. Importantly, the adoption of coherent policy and legal instruments addressing human mobility in the context of disasters, climate and/or environmental changes calls for disaggregated data. That is, the effective quantification of people evacuated, displaced and/or relocated in the aftermath of disasters depends on detailed data, including elements such as distance and duration of the (forced)movement, as well as taking the risks of those living in areas prone to disasters into account.

3.4 Indicators Related to the Climate Agenda

Human mobility in the context of climate change was first expressly addressed under the international climate regime in 2010 at the UNFCCC COP16.[14] The topic was raised again two years later in discussions related to the support for a loss and damage mechanism to tackle the impacts of climate change.[15] The inclusion of this subject in the climate agenda was further promoted with the adoption of the Paris Agreement. Human mobility in the context of climate

---

[12]See Paragraph 1st, Resolution No. 71/313 of 2017.
[13]To date, seven reports have been released, corresponding to the years 2016, 2017, 2018, 2019, 2020, 2021 and 2022.
[14]See Paragraph 14(f) from Decision 1/CP.16 (UNFCCC, 2011).
[15]See Paragraph 7(a)(iv) from Decision 3/CP.18 (UNFCCC, 2012).

change was considered from a three-fold perspective: (i) reference to migrants' rights, (ii) mentions to the resilience of communities and the relevance of their livelihoods, as well as (iii) the establishment of a task force to better understand and address the topic (see Table 5 in Annex 1).

More importantly, Decision 1/CP.21 (49) requested the Executive Committee of the Warsaw International Mechanism on Loss and Damage (WIM) to establish a Task Force on Displacement (TFD) to develop recommendations to prevent and reduce forced migration processes driven by climate change (UNFCCC, 2015). The TFD's first report was made available at the COP24 (2018). The report concluded that attention to the distinct contexts of human mobility in the context of disasters, climate and environmental degradation has significantly increased since 2015. For instance, 53 percent of 66 countries analysed by the TFD mentioned environmental factors as drivers of displacement of people in their migratory legal framework. Likewise, the TFD's report identified references to human mobility in 81 percent of the 37 National Adaptation Plans (NAPs) presented by Member States (UNFCCC, 2018).

At the national level, the TFD recommended the adoption of specialised legislation, as well as ensuring coordination amongst actors dealing with human mobility and climate change. The TFD report further suggested increased engagement in partnership with affected communities and other stakeholders. It also advocated the integration of human mobility into the formulation and implementation of NAPs, and the communication of efforts undertaken through Nationally Determined Contributions (NDCs). The report also invites governments to enhance research, data collection, risk analysis, and sharing of information to better map, understand and manage human mobility related to the impacts of climate change. Attention was also given to the state of knowledge of displacement in the context of slow-onset events. It further underlines the need for technical guidance to support counties in mainstreaming displacement in their NAPs and NDCs (UNFCCC, 2018) (see Table 6 in Annex 1).

To examine in what way, and to what extent countries are integrating provisions on environmental migration and disaster displacement into their national climate policy and legal frameworks, some indicators have been drawn from the recommendations of the Executive Committee of the Warsaw International Mechanism for Loss and Damage and its TFD. Given that the TFD provided recommendations at distinct levels, the indicators presented in this study focus strictly on national-level recommendations. This is because the environmental migration and human security policy assessment Tool is to be applied only to national policy and legal instruments. Also, from the recommendations that are exclusively targeted at State-Parties, only those that refer to legal aspects and/or that can be translated into normative instruments were considered (see Table 7 – Annex 1).

3.5 Indicators Related to the Sendai Framework for Disaster Risk Reduction

The Sendai Framework for Disaster Risk Reduction (2015-2030) is a non-binding agreement that aims to achieve a substantial reduction of disaster risk and losses of human lives, livelihoods and health, as well as in economic, physical, social, cultural and environmental assets of persons, businesses, communities and countries (UNDRR, 2015). It outlines seven targets to prevent and minimise existing disaster risks.[16] Another important aspect of the framework is that, it calls for a better understanding of the topic and the strengthening of DRR and management, improving

---

[16]These are: (i) reduce global disaster mortality; (ii) reduce the number of affected people globally; (iii) reduce direct economic loss in relation to gross domestic product (GDP); (iv) reduce disaster damage to critical infrastructure and disruption of basic services; (v) increase the number of countries with national and local DRR strategies; (vi) substantially enhance international cooperation to developing countries; and (vii) increase the availability of and access to multi-hazard early warning systems (UNDRR, 2015).

resilience and enhancing disaster preparedness for effective responses in recovery, rehabilitation and reconstruction (UNDRR, 2015). In doing so, the framework underlines the resilience-building potential of all forms of human mobility.

The Sendai Framework urges the protection of any individual on the move as DRR strategies. It advocates the strengthening of both human and infrastructural resilience through the engagement of national governments, regional and international organisations, as well as relevant stakeholders addressing the topic (IDMC, 2017). References to human mobility are noted in provisions dealing with the improvement of disaster risk governance. In this regard, the framework suggests the formulation of normative instruments that effectively tackle human displacement in the context of disasters, presenting a twofold approach to human mobility: (i) the impacts of disasters on displaced people and their role in DRR, and (ii) the management of all phases of the displacement cycle – pre-disaster, displacement and post-crisis phases (see Table 8 – Annex 1).

Through Resolution No.69/284 of 2015, the United Nations General Assembly (UNGA) established an intergovernmental working group of experts to develop a set of indicators capable of measuring the progress of the Sendai Framework implementation at the global level (UNGA, 2015b). The working group presented its final report on indicators to be applied in the context of DRR to the UN Secretary-General in December 2016 (UNGA, 2016), and then subsequently approved by the UNGA through Resolution No. 71/276 of 2017 (UNGA, 2017b). Overall, a set of 38 indicators were designed to assess the progress in the implementation of the Sendai Framework in relation to the seven global targets to prevent and minimise existing disaster risks. The monitoring of the implementation of the Sendai Framework is structured according to two sets of indicators for the global and national levels. The first set of indicators enables the measurement of global developments achieved by each country in terms of DRR until 2030. This is based on the information provided by each of the countries and to be published in biennial global assessment reports. The second set relates to tailored indicators that are to be established by each country to evaluate national progress regarding the Framework's priorities, based on the specific needs of each State and to be reported in national DRR reports (Ibid.).

In effect, the global set of indicators are aimed at monitoring the implementation and respective results attained in regard to the seven general targets outlined in the Sendai Framework. These global indicators are standardised, and thus allow for comparison of the results from each country. On the other hand, the national set of indicators are contextualised in accordance with the distinct needs and circumstances of the countries tracking the integration of the recommendations under the Sendai Framework's priority actions (ibid.). On the part of the global indicators adopted to monitor the implementation of the seven main targets to prevent and minimise existing disaster risks, there is a lack of specific indicators to gauge the number of people displaced, evacuated and/or relocated in the context of disasters. As noted by IDMC, the opportunity to include global indicators that consider the human mobility dimension in situations of disasters was missed, not only as a DRR preventive measure (i.e. planned relocation processes), but also as an impact on people affected by disasters (i.e. displacement and/or evacuation) (IDMC, 2017).

Despite the lack of specific indicators on the human mobility dimension, some of them can be implicitly linked to the topic. These are captured as: (i) substantially reduce the number of affected people globally by 2030, aiming to lower the average global figure per 100,000 between 2020-2030 compared with 2005-2015; (ii) substantially increase the number of countries with national and local disaster risk reduction strategies by 2020; and (iii) substantially increase the availability

of and access to multi-hazard early warning systems and disaster risk information and assessments to the people by 2030 (see Table 9 – Annex 1).

As noted, States are called to draw up their own indicators in accordance with their specific needs. This thus enables the effective evaluation of DRR policy and legal instruments and results achieved at the national level. In this context, the inclusion of the human mobility dimension in national DRR indicators is critical for the development of evidence-based policy and legal frameworks – ensuring that vulnerable populations and/or affected persons are not left behind. The establishment of specific indicators dealing with the topic has the potential to minimise and enhance responses to disaster-related displacement. This would also allow for systematic procedures related to the collection, management and dissemination of data on disaster displacement, including data on displacement caused by slow-onset events (IDMC, 2017).

By noting the work of the intergovernmental working group of experts, the Platform on Disaster Displacement (PDD) recommended the integration of disaster displacement into national DRR indicators (PDD, 2017). Following this call, the IOM/IDMC (2022) have presented a set of draft indicators to facilitate the effective measurement of the dimensions of displacement. Guided by the international recommendations outlined by the Expert Working Group on Refugee Statistics (EGRIS) on the standardisation of definitions and approaches relating to internally displaced persons statistics (IRIS), the proposed draft indicators will be piloted in at least five sites that are affected by climate change and vulnerable to related natural hazards across Asia-Pacific, Africa and the Americas. It is envisaged that the proposed set of draft indicators will allow for development of context-specific indicators that will enhance ongoing monitoring of progress towards meeting the targets of the Sendai Framework and SDGs, as well as support disaster prevention, preparedness, response and recovery activities focusing on population movements (ibid.: 1). The UNDRR leaves it open to States to design national indicators, based on the Sendai Framework's target, to monitor the implementation of national and/or local DRR policy and legal instruments. Following the successful piloting of these proposed displacement indicators for DRR, States could build on this to further refine the indicators to suit the national circumstances in order to effectively address the mobility dimensions of climate change and natural disasters (UNISDR, 2018). Based on the priorities of the Sendai Framework, Table 10 (Annex 1) presents a list of indicators that could be applied in national and/or local contexts, focusing exclusively on the recommendations related to the human (im)mobility dimension.

3.6 Indicators Related to Environmental Migration and Disaster Displacement from the Human Security Perspective

Mobility patterns associated with disasters, climate change and environmental degradation arise from multiple factors that are interconnected and mutually reinforcing (Westbury, 2022). The application of the human security approach in such contexts can strengthen resilience to climate change and related disasters, promote peaceful and inclusive societies, address the underlying causes of persistent poverty, as well as bolster the transition from humanitarian crisis to longer-term sustainable development (UNTFHS, 2016). Such measures support the alleviation of (forced) population movements as a result of climate change, disasters and environmental degradation (Westbury, 2022). The human security approach aligns with the goals, guidelines and recommendations established under the aforementioned international frameworks. The premises of the human security perspective can facilitate the development of policy and legal instruments

aimed at protecting people from sudden or slow-onset climate and/or environmental disruptions and ultimately, averting increased mobility patterns (UNTFHS, 2016).

By adopting Resolution No.66/290 of 2012, UNGA encouraged the application of the human security approach to identify and address the challenges related to the survival, livelihood and dignity of individuals and entire communities (UNGA, 2012b). In short, the Resolution endorsed four main principles to guide the application of the human security approach within the UN System and its Member-States. In short, the human security approach shall be people-centred, comprehensive, context-specific and prevention-oriented (see Table 11 – Annex 1).

Approaching the principles that structure the human security perspective to situations of human mobility in the context of disasters, climate and/or other environmental changes implies:

(i) Placing people at the centre of analysis and action, human security considers the broad range of factors that threaten the stay of individuals in their usual place of residence, particularly those who are most vulnerable to the impacts of climate-related disasters. The perspective balances the importance of environmental drivers acting together with civil, political, social and cultural aspects that lead to the decision and/or need to move elsewhere. This enables a better understanding of the multicausality of factors driving mobility patterns (UNTFHS, 2016).

(ii) Addressing the full range of human insecurities faced by individuals and communities, including those resulting from disasters, climate and/or other environmental changes. It facilitates a focus on addressing the root causes of climate and/or environmental risks and impacts both within and across borders, advancing multi-sectoral responses and assisting in the prevention and management of (forced) population movements in the short-, medium- and long-term. In this light, the application of human security would ensure "coherence, eliminates duplication and advances integrated solutions that result in more effective and tangible improvements in the day-to-day life of people and their communities" (ibid.: 8).

(iii) Acknowledging that human mobility in the context of disasters, climate and environmental degradation varies significantly across communities and countries. Its root causes depend on a complex interaction of local, national, regional and international drivers. Addressing the human (in)securities of those on the move thus also require capturing the distinct time and spatial scales, meaning that there is no "one size fits all" in dealing with the phenomenon. The perspective recognises the context-specific nuances of the human mobility dimension, encompassing the limited capacities of affected people, civil society and governments (ibid.).

(iv) Calling for early prevention to minimise the impacts of climate and/or environmental risks, to engender long-term solutions and to build human capacities for enhancing resilience when prevention is not possible. Within the scope of the study, the human security perspective would bolster: (a) the development of measures to address the root causes of (forced) population movements as a result of disasters and other climatic/environmental risks and impacts, (b) the formulation of early warning systems and preventive interventions to mitigate the impacts of current climate/environmental risks, instead of late and recovery actions; as well as (c) the implementation of adaptation strategies that support individuals and communities to become more resilient to such risks and impacts (ibid.).

The human security perspective fosters policy coherence and coordination across distinct national agendas, supporting the development of comprehensive and integrated solutions to manage (forced) population movements as a result of disasters, climate change and/or other environmental degradation (Westbury, 2022). The promise of the human security approach lies in the fact that it integrates top-down policies and legal instruments (i.e. rule of law, good governance, accountability, social protection measures) with a bottom-up focus. Furthermore, it calls for inclusive and participatory processes that defend individuals and communities as actors in defining and implementing their essential needs (UNTFHS, 2016).

To translate the human security perspective in the assessment Tool, the types of human insecurities and possible root causes were initially examined. This enabled the identification of the respective risks and impacts of each of the human security components on individuals and communities (including the human mobility dimension). By appreciating the manifestations of each threat or impact of natural hazards on different components of human (in)security, it was possible to better understand the impact of each threat on situations of environmental migration and disaster displacement. It has also facilitated the formulation of a baseline of indicators to allow for a thorough assessment of the needs, vulnerabilities and capacities of affected individuals and communities (see Table 12 – Annex 1).

4. Human Security Assessment Tool with a focus on Environmental Migration and Disaster Displacement

Having outlined the various recommendations and indicators from global policy frameworks and legislation, and the human security approach, this section highlights the organisation of these indicators and the design of the Human Security Policy Assessment Tool, with a focus on human mobility in the context of climate change, environmental degradation and disasters to be applied in the Eastern Caribbean States. This is a first attempt to employ such indicators to ascertain in which ways the national policy and legal instruments integrate the distinct dimensions of human mobility in the context of disasters, climate change and/or environmental degradation from the human security perspective.

The Environmental Migration and Human Security Policy Assessment Tool is organised in the form of a questionnaire, composed of a distinct set of indicators to be applied to national migration, climate change, environment and DRR policy and legal instruments from the Eastern Caribbean States. The set of indicators that based on the recommendations drawn from the international frameworks were grouped into three major clusters and/or categories: human mobility, climate change and DRR. This is because, most often the same elements are repeated in the different documents from such international frameworks. A fourth cluster was developed, this one presenting a list of indicators related to the incorporation of the human security perspective in national policy and legal instruments dealing with situations of human mobility in the context of disasters, climate and/or other environmental changes. This last cluster, which addresses the human security perspective in national policy and legal instruments, was divided into seven sub-sections – each one representing a distinct type of human (in)security that arise from the various forms of human mobility (migration, displacement and planned relocation).

Table 13 presents the set of indicators related to human mobility, climate change and DRR clusters for evaluating the integration of considerations on human mobility in the context of disasters, climate change and environmental degradation into national policy and legal instruments in the Eastern Caribbean States.

| **Table 13 List of Indicators (Human Mobility, Climate Change and DRR Clusters)** |

| **CLUSTER 1: Environmental migration from the human security perspective within national migration legal and policy frameworks** |

Indicator	Question	Answer	Additional Remarks/Observations
1.1	Does the country present legal and policy instruments that relate to the distinct dimensions of human (im)mobility?	( ) Yes ( ) No	
1.2	Do(es) these(existing) legal and policy instruments refer and/or propose the development of specific measures to address population movements and immobility in the context of climate change, disasters, and/or environmental degradation??	( ) Yes ( ) No	
1.3	Have these legal and policy instruments been adopted, amended or complemented since the adoption of Global Compact for Safe, Orderly and Regular Migration?	( ) Yes ( ) No	
1.4	Do these legal and policy instruments facilitate an integrated approach among distinct governmental bodies/levels, as well as the coordination between climate, environmental and other relevant actors.	( ) Yes ( ) No ( ) Partially	
1.4.1	Do these legal and policy instruments define the distinct responsibilities, rights and roles from such actors`, as well as provided for accountability mechanisms.	( ) Yes ( ) No ( ) Partially	
1.5	Existence of legal and policy instruments that facilitate safe, orderly and regular migration[17] in the context of climate change.	( ) Yes ( ) No ( ) Partially	
1.6	Existence of legal and policy instruments that take into consideration the special needs of individuals migrating due to the impacts of climate change and/or environmental degradation, as well as the special needs of destination communities.	( ) Yes ( ) No ( ) Partially	
1.7	Existence of legal and policy instruments that ensure the fulfilment of migrants' human rights?	( ) Yes ( ) No	
1.7.1	Are these provisions on fulfilment of migrants' human rights also applicable to individuals migrating as a result of climate change and/or environmental degradation?	( ) Yes ( ) No	
1.8	Existence of legal and policy instruments that present any criteria to identify and characterise cross-border movements in situations of disasters.	( ) Yes ( ) No	
1.10	Are there good practices and/or exceptional measures established by legal and policy instruments that allow for adequate admission and stay of people affected by disasters (incl. granting of humanitarian visa or admission)?	( ) Yes ( ) No	
1.10.1	*(If instruments (i.e. humanitarian visas) are in place for the reception of cross-border displaced people as a result of disasters:)* Are there provisions and/or measures to safeguard their human rights, as well as access to assistance and basic needs (i.e. education, food, health, labour market, etc.)?	( ) Yes ( ) No	
1.10.2	Are these individuals provided necessary documentation (according to their migratory status)?	( ) Yes ( ) No	

---

[17] Safe, orderly and regular migration cover all dimensions of internal and/or international migration in a holistic and comprehensive manner. In other words, it can be defined as migration processes that occur through recognized and authorized channels. Migration patterns that are not safe, orderly and regular relate to the movement of people that takes place outside the law, regulation and/or international agreements governing the entry into or exit from the State of origin, transit or destination.

1.11	Are there government initiatives (plans, programmes, projects, strategies, etc.) in place to identify, develop and strengthen solutions for internal and/or cross-border population movements in the context of slow-onset events?	( ) Yes ( ) No	
1.14	Are there any specific measures to support migrants facing crisis situations in the host country, such as disasters (including pandemics), facilitating their access to consular and humanitarian protection?	( ) Yes ( ) No	
1.16	Are there provisions for humanitarian actions (i.e. suspension of deportation, change of migratory status, resident permit extension) for migrants when a disaster in their country of origin prevents and/or hinders their return?	( ) Yes ( ) No	
1.17	Is there any legal or policy instrument that provides the concession of resident permits for seasonal workers, prioritising individuals from countries facing the impacts of climate and/or other environmental changes?	( ) Yes ( ) No	
1.18	Are there any provisions related to the establishment of mechanisms capable of collecting, managing and disseminating data on human (im)mobility in the context of climate and/or other environmental changes?	( ) Yes ( ) No	
1.19	Are there provisions on that allows for consultation and participation of affected populations in decision-making processes related to human (im)mobility in the context of climate and/or environmental degradation?	( ) Yes ( ) No	
1.20	Does the country present a specific legal or policy instrument (mechanisms) related to internal movement of people that can be applied in contexts of climate change, disasters, and/or environmental degradation?	( ) Yes ( ) No	
1.20.1	Does such legal or policy instrument integrate the provisions established under the Guiding Principles on Internal Displacement?	( ) Yes ( ) No	
1.21	Has the country concluded bilateral agreements with other countries, or is it a party to a regional agreement or instrument with direct or indirect provisions allowing admission and stay of migrants from a country affected by sudden-onset disaster? *(Examples of instrument include free movement agreements, transhumance agreements, regional refugee protection frameworks, regional disaster response frameworks with provisions for entry and stay applicable in disaster situations.)*	( ) Yes ( ) No	
1.21.1	Does the country participate in any bilateral, subregional or regional mechanisms, agreements, frameworks or programmes that provide solutions to facilitate temporary or seasonal regular migration pathways, including visa options or international labour standards and rights-based labour migration schemes for persons affected by slow-onset effects of climate change and environmental degradation, in particular from countries affected by desertification, land degradation, drought or sea level rise?	( ) Yes ( ) No	
1.21.2	Has the country concluded bilateral or regional cooperation frameworks or agreements on return, readmission and reintegration that include specific provisions for non-return or temporary suspension of removal to countries affected by disasters?	( ) Yes ( ) No	

CLUSTER 2: Environmental migration from a human security perspective within national climate policies and legal frameworks			
Indicator	**Question**	**Answer**	**Observations**
2.1	Does the country have specific legal and policy instruments addressing climate change adaptation and/or mitigation?	( ) Yes ( ) No	
2.2	Have these specific legal and policy instruments been adopted, amended or complemented to align with the 2015 Paris Agreement?	( ) Yes ( ) No	
2.3	Do these legal and policy instruments recognise human (im)mobility in the context of disasters, climate and/or other environmental changes?	( ) Yes ( ) No ( ) Partially	
2.3.1	Do they make provisions that facilitate the adoption of integrated approaches to averting, minimising, and addressing human (im)mobility in the context of disasters, climate and/or other environmental changes?	( ) Yes ( ) No	
Indicate the climate agenda instruments that have been adopted and/or communicated by the country			
2.4	National Policy on Climate Change *(Please include complete title and year of publication, if yes)*	( ) Yes ( ) No	
2.4.1	Does it mention, address and/or identify concrete actions related to the distinct dimensions of human (im)mobility?	( ) Yes ( ) No ( ) Partially	
2.5	National Adaptation Plan *(Please include complete title and year of publication, if yes)*		
2.5.1	Does it mention, address and/or identify concrete actions related to the distinct dimensions of human (im)mobility - challenges and opportunities - in its formulation and subsequent implementation?	( ) Yes ( ) No ( ) Partially	
2.5.2	Is there an institutional framework that facilitates the implementation of the National Adaptation Plan?	( ) Yes ( ) No ( ) Partially	
2.6	Nationally Determined Contributions *(Please include complete title and year of publication, if yes)*	( ) Yes ( ) No	
2.6.1	Does it mention, address and/or outline concrete actions related to the distinct dimensions of human (im)mobility?	( ) Yes ( ) No ( ) Partially	
2.7	National Communications *(Please include complete title and year of publication, if yes)*	( ) Yes ( ) No	
2.7.1	Does it mention, address and/or outline concrete actions related to the distinct dimensions of human (im)mobility?	( ) Yes ( ) No ( ) Partially	
2.8	Do the existing legal and policy climate instruments allow for the adaptation to climate impacts, avoiding humanitarian crises as a result?	( ) Yes ( ) No ( ) Partially	
CLUSTER 3: Environmental migration from a human security perspective within national DRR governance frameworks			
Indicator	**Question**	**Answer**	**Observations**
3.1	Has the country established legal and policy instruments related to Disaster Risk Reduction (DRR)? *(Please include complete title and year of publication, if yes)*	( ) Yes ( ) No	
3.2	Have the existing legal and policy instruments related to DRR been adopted, amended or complemented to align with the Sendai Framework for DRR?	( ) Yes ( ) No	

3.3	Have the existing legal and policy instruments related to DRR incorporated the distinct dimensions[18] of human (im)mobility?	( ) Yes ( ) No ( ) Partially	
3.3.2	Do these legal and policy DRR instruments consider all the stages of the human displacement cycle due to disasters, including effective measures to protect displaced people in this context?	( ) Yes ( ) No	
3.4	Have the existing legal and policy instruments related to DRR established powers and responsibilities to distinct actors dealing with the topic in terms of preparedness, management and responses to disaster-related displacement?	( ) Yes ( ) No	
3.4.1	Do the existing national DRR strategies and related measures make provisions for migrants, as well as ensure migrants' participation in DRR decision-making processes?	( ) Yes ( ) No	
3.5	Are there preparedness and recovery response plans based on normative instruments?	( ) Yes ( ) No	
3.5.1	Do these plans incorporate the human (im)mobility dimension into preparedness and recovery measures, including provisions on the right of displaced people to humanitarian assistance?	( ) Yes ( ) No ( ) Partially	
3.5.2	Do these plans include considerations about migrants affected by disasters in the host country?	( ) Yes ( ) No	
3.6	Do existing legal and policy DRR instruments stipulate the development of early warning systems with respective action plans at the national and/or local levels?	( ) Yes ( ) No	
3.6.1	Do the early warning systems and respective action plans include any measures related to human displacement?	( ) Yes ( ) No	
3.7	Do the existing legal and policy DRR instruments foresee the establishment of evacuation and/or sheltering mechanisms and/or plans, including preventive evacuation in the aftermath of an early warning?	( ) Yes ( ) No	
3.7.1	Do these mechanisms and plans protect the human rights of evacuees and/or affected/vulnerable people in shelters?	( ) Yes ( ) No	
3.8	Do the existing legal and policy DRR instruments present provisions related to the development of risk assessment reports, as well as access to information?	( ) Yes ( ) No	
3.8.1	Are there measures in place related to information sharing, as well as training, on disaster-related human displacement for official actors, civil society, and communities affected or at risk?	( ) Yes ( ) No	
3.9	Do the existing legal and policy DRR instruments adopt provisions aimed at preventing human settlements in risk areas? *(Please also consider the existence of urban planning mechanisms and tools.)*	( ) Yes ( ) No	
3.9.1	Do the existing legal and policy DRR instruments adopt provisions aimed at relocating people and communities from risk areas? *(Please also consider the existence of specific guidelines for relocation and/or resettlement of people.)*	( ) Yes ( ) No	
3.9.2	Do such provisions stipulate the development of mechanisms to safeguard the rights of affected people?	( ) Yes ( ) No	
3.9.3	Do such provisions call for the development of assessment reports related to the (eventual) relocation of persons from human settlements in risk areas?	( ) Yes ( ) No	

---

[18] Please refer to the human (im)mobility dimension incorporated in the existing legal and policy instruments. It is to be noted that, in the context of disasters, the human (im)mobility dimension goes beyond migration, displacement and planned relocation, also encompassing evacuation and sheltering of individuals

| 3.10 | Do the existing legal and policy DRR instruments foresee the development of specific policies, plans or programmes aimed at durable solutions for disaster-related human displacement? | ( ) Yes
( ) No | |
| 3.12 | Are there normative instruments and related mechanisms to promote access to information and the participation of displaced people, people at risk of displacement, as well as host communities in actions related to addressing disaster-related displacement? | ( ) Yes
( ) No
( ) Partially | |

Source: Developed by authors (2022)

Table 14 outlines the set of indicators related to the human security approach and national policy and legal instruments addressing the distinct situations of human mobility in the context of disasters, climate and/or environmental change. It is to be reiterated that this last set of indicators were divided into seven sub-sections – each one representing a distinct type of human (in)security that arise from the various forms of human mobility (migration, displacement and planned relocation).

Table 14 The Integration of the Human Security Perspective into Environmental Migration and DRR Policy and Legal Instruments that Address the Distinct Dimensions of Human Mobility in the Context of Climate Change, Environmental Degradation and Disasters				
Type of (In)security	**Indicator**	**Question**	**Answer**	**Observations**
4.1 Economic (In)security	4.1.1	Do existing national policy and legal instruments make provisions to address or extend support to people living in poverty in the context of climate change, environmental degradation and/or disaster-related migration, displacement and/or planned relocation processes?	( ) Yes ( ) No ( ) Partially	
	4.1.2	Do existing national policy and legal instruments address unemployment due to migration, displacement and/or planned relocation processes in the context of climate change, environmental degradation and/or disasters?	( ) Yes ( ) No ( ) Partially	
	4.1.3	Do existing national policy and legal instruments make provisions for the maintenance, protection of livelihood systems or livelihood alternatives, and income diversification for those individuals who migrate, have been displaced and/or relocated in the context of climate change, environmental degradation and/or disasters?	( ) Yes ( ) No ( ) Partially	
	4.1.4	Do existing national policy and legal instruments facilitate access to education, skills training and related skills development (i.e. TVET/green/blue jobs) for individuals who migrate, displace and/or relocate in the context of climate change, environmental degradation and/or disasters?	( ) Yes ( ) No ( ) Partially	
	4.1.5	Do existing policy and legal instruments make provisions for or address rural-urban migration and/or displacement, as well as other circular, seasonal and/or	( ) Yes ( ) No ( ) Partially	

		return migration that arise from the impacts of climate change, environmental degradation and/or disasters?		
4.2 **Food (In)security**	4.2.1	Do existing policy and legal instruments promote enhanced food assistance and improved nutrition to people who have migrated, been displaced and/or relocated as a result of the impacts of climate change, environmental degradation and/or disasters?	( ) Yes ( ) No ( ) Partially	
	4.2.2	Do existing policy and legal instruments stipulate for the development of climate-smart agricultural practices (climate adaptation and food security) for affected or vulnerable populations that migrate, are displaced and/or relocate in the context of climate change, environmental degradation and/or disasters?	( ) Yes ( ) No ( ) Partially	
	4.2.3	Do existing policy and legal instruments relate food (in)security measures to the needs of populations in the context of protracted displacement and rising (forced) populations movements (i.e. rural-urban, seasonal and/or circular migration/return migration)?	( ) Yes ( ) No ( ) Partially	
4.3 **Health (In)security**	4.3.1	Do existing policy and legal instruments enable and/or improve access to basic healthcare for affected or vulnerable populations who migrate, are displaced and/or relocate as a result of climate change, environmental degradation and/or disasters?	( ) Yes ( ) No ( ) Partially	
	4.3.2	Are there national policy and legal instruments aimed at providing water and related basic nutrition assistance, as well as promoting good sanitation before, during and in the aftermath of migration, displacement and/or relocation processes?	( ) Yes ( ) No ( ) Partially	
	4.3.3	Do existing national policy and legal instruments integrate migrants, displaced and/or relocated people in measures to address vulnerability to infectious diseases (i.e. vaccination, preventive healthcare, etc.)?	( ) Yes ( ) No ( ) Partially	
	4.3.4	Are there specific national policy and legal instruments dealing with strategies to cope with immobility in the event of pandemics?	( ) Yes ( ) No ( ) Partially	
	4.3.5	Are there specific national policy and legal instruments stipulating for the provision of health assistance in situations of disaster?	( ) Yes ( ) No ( ) Partially	

4.4 **Environmental** **(In)security**	4.4.1	Do existing policy and legal instruments encourage the development and implementation of climate adaptation strategies to address (forced) population movements in the context of climate change, environmental degradation and/or disasters?	( ) Yes ( ) No ( ) Partially	
	4.4.2	Do existing policy and legal instruments encourage the notion of migration as an adaptation strategy to climate/environmental risks and impacts?	( ) Yes ( ) No ( ) Partially	
	4.4.3	Are there national policy and legal instruments that facilitate the development of ecosystem-based approaches to avert (forced) population movements in the context of climate change, environmental degradation and/or disasters?	( ) Yes ( ) No ( ) Partially	
	4.4.4	Do existing policy and legal instruments at the national level that call for the development of strategies and plans also make provisions to tackle the (im)mobility dimension of climate change, environmental degradation and/or disasters?	( ) Yes ( ) No ( ) Partially	
4.5 **Personal** **(In)security**	4.5.1	Are there existing policy and legal instruments that regulate or extend provisions to promote the security of migrants, displaced and/or relocated people in the context of climate change, environmental degradation and/or disasters in situations of violence (i.e. injuries and killings of community members, migrants, displaced persons)?	( ) Yes ( ) No ( ) Partially	
	4.5.2	Do existing policy and legal instruments stipulate for the improvement of local governance, the implementation of law enforcement systems, as well as leadership strategies to cope with the distinct dimensions of human mobility in the context of climate change, environmental degradation and/or disasters?	( ) Yes ( ) No ( ) Partially	
	4.5.3	Do existing policy and legal instruments address the special needs of vulnerable groups, which include not only children, elderly, persons with disabilities and women but also migrants, displaced and/or relocated persons in the context of climate change, environmental degradation and/or disasters?	( ) Yes ( ) No ( ) Partially	
4.6 **Community** **(In)security**	4.6.1	Are there policy and legal instruments regulating peacebuilding efforts at the national level that consider the challenges related to the distinct dimensions of	( ) Yes ( ) No ( ) Partially	

		human mobility in the context of climate change, disasters, and environmental degradation?		
	4.6.2	Do the existing policy and legal instruments at the national level aim to enhance participation of migrants, displaced and/or relocated people in the context of climate change, environmental degradation and/or disasters in community development?	( ) Yes ( ) No ( ) Partially	
	4.6.3	Are there policy and legal instruments with provisions on (community)disarmament programmes in promoting/ensuring community security?	( ) Yes ( ) No ( ) Partially	
	4.6.4	Do existing policy and legal instruments stipulate for inclusive community-based climate adaptation and development programmes that allows for the participation of environmental migrants or persons displaced due to disasters?	( ) Yes ( ) No ( ) Partially	
4.7 Political (In)security	4.7.1	Are there policy and legal instruments that support the improvement of rule of law, local governance and leadership at the national level?	( ) Yes ( ) No ( ) Partially	
	4.7.1.1	If yes, do they consider the challenges related to the distinct dimensions of human mobility in the context of climate change, environmental degradation and/or disasters?	( ) Yes ( ) No ( ) Partially	

Source: Developed by authors (2022)

5. Summary and Conclusion

As already highlighted in the foregoing discussion, there is increasing recognition that ongoing climate change poses as a threat multiplier. The impact of climate change, environmental degradation and related disasters tend to aggravate multiple risks, which mostly interact with existing socio-economic and political factors to undermine human security. Acknowledging also that the compounding effect of COVID-19 and other disasters, it is envisaged that these will interact in complex ways with climate change impact and existing vulnerabilities to pose a host of insecurities to human wellbeing. The possible tensions and conflicts that may arise in the wake of climate change, environmental degradation and natural disaster impact on displacement and migration could also have adverse implications for food security, health and human wellbeing. The need to safeguard human security has thus informed efforts for a more comprehensive and people-centred approach to addressing the multi-dimensional challenges that interact to increase vulnerability to climate and disaster risks across the globe. The human security approach provides a comprehensive way for countries to address the human mobility dimensions of climate change, environmental degradation and disaster impact through the lens of human security for sustainable and inclusive development.

The Environmental Migration, Disaster Displacement and Human Security Policy Assessment Tool that has been developed presents a set of questions or indicators by taking into consideration the recommendations and provisions in existing global migration, climate change, DRR and

development governance frameworks and legislation. The human security policy assessment and its set of indicators will allow for critical insights on the extent to which countries integrate or outline concrete measures based on the human security approach to address environmental migration and disaster displacement. With the nine Eastern Caribbean countries that have been to pilot the Tool, the assessment is currently being done to ascertain whether national policy and legal instruments in the identified States meet the recommendations from international frameworks on the topic, including the human security approach, without evaluating their effectiveness and implementation processes (practice aspects).

More importantly, it is also to be noted that the assessment Tool that has been developed is not limited to being observational in only examining to what extent national policy and legal instruments of Eastern Caribbean States are aligned with international goals, guidelines and recommendations on the topic. It goes beyond that by being a provocative Tool that will enable the presentation of recommendations to Eastern Caribbean States to reinforce their level of alignment with international frameworks and to tackle any identified gaps and inconsistencies in national policy and legal instruments addressing human mobility in the context of disasters, climate change and environmental degradation from the human security approach. In future exercises, the assessment Tool can also be expanded to also probe the effectiveness and implementation processes (i.e. the practice aspects) of such policy and legal instruments. Based on the lessons that may be learnt from the assessment, the goal is to continuously refine the Human Security Assessment Tool as a global Tool that could be applied seamlessly to other contexts in countries across the world. Besides national policymakers and governments, it is also envisaged that this tool will serve as a useful reference for academia and development practitioners to guide the integration of the human security approach in undertaking research, assessment, design and implementation of programmes on disaster displacement and environmental migration.

References

ACP Observatory on Migration
    2014   *The Evidence Behind the Picture: Irregular Migration in ACP Countries and the Global South.* Background Note, ACPOBS/2014/BN12, ACP Observatory on Migration and International Organisation for Migration. Brussels, Belgium.

ACP Observatory on Migration
    2013   *Human Mobility in the Caribbean: Circulation of Skills and Migration from the South.* Kairi Consultants Ltd Research Report, ACPOBS/2013/PUB16. Brussels, Belgium.

Adams, H.
    2016   Why Populations Persist: Mobility, Place Attachment and Climate Change. *Population and Environment, 37, 429-448.*

Adaawen, S., Rademacher-Schulz, C., Schraven, B. and Segadlo, N.
    2019   Drought, Migration and Conflict in Sub-Saharan Africa: What are the Links and Policy Options? In: *Drought Challenges: Policy Options for Developing Countries* [Mapedza, E., Tsegai, D., Brüntrup, M. and McLeman, R. (eds.)]. Current Directions in Water Scarcity Research, 2, Elsevier.

Adger, W.N., J.M. Pulhin, J. Barnett, G.D. Dabelko, G.K. Hovelsrud, M. Levy, Ú. Oswald Spring, and Vogel, C.H.
    2014   Human Security. In: *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Field, C.B., V.R. Barros, D.J. Dokken, K.J. Mach, M.D. Mastrandrea, T.E. Bilir, M. Chatterjee, K.L. Ebi, Y.O. Estrada, R.C. Genova, B. Girma, E.S. Kissel, A.N. Levy, S. MacCracken, P.R. Mastrandrea, and L.L. White (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp.755-791.

Adger, N.W. and Hodbod, J.
    2014   Ecological and Social Resilience. In: Handbook of Sustainable Development (2nd Edition) [Atkinson, G., Dietz, S., Neumayer, E. and Agarwala, M. (eds.)], Elgar, pp.91-102.

Adger, W.N.
    2010   Climate Change, Human Well-Being and Insecurity. New Political Economy, 15(2), 275-292.

Afifi, T., Milan, A., Etzold, B., Schraven, B., Rademacher-Schulz, C., Sakdapolrak, P., Reif, A., Van der Geest, K. and Warner, K.
    2015   Human Mobility in Response to Rainfall Variability: Opportunities for Migration as a Successful Adaptation Strategy in Eight Case Studies. *Migration and Development,* 1-21.

Andrijevic, M. and Ware, J.
    2021   *Lost and Damaged: A study of the Economic Impact of Climate Change on Vulnerable Countries.* Christian Aid, London, UK.

Andreola Serraglio, D., Adaawen, S. and Schraven, B.
    2021   *Migration, Environment, Disaster and Climate Change Data in the Eastern Caribbean – Regional Overview.* International Organization for Migration Global Migration Data Analysis Centre (IOM GMDAC). Berlin.

Aragón, E. and El-Assar, A.
    2018   *Migration Governance in the Caribbean: Report on the Island States of the Commonwealth Caribbean (Antigua and Barbuda, the Bahamas, Barbados, Dominica, Grenada, Jamaica, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Trinidad and Tobago).* International Organization for Migration (IOM), San José, Costa Rica.

30

Aragón, E. and Mawby, B.

    2019   *Free Movement of Persons in the Caribbean: Economic and Security Dimensions.* International Organisation for Migration (IOM), San José, Costa Rica.

Arias, P.A., et al.

    2021   Technical Summary. In: *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* [Masson-Delmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 33−144.

Ayuso, T. and Hansen, M.B.

    2017   Exodus from Hurricane-hit Dominica as Recovery Remains Elusive. The New Humanitarian, Environment and Disaster Feature. Available at: https://www.thenewhumanitarian.org/feature/2017/10/18/exodus-hurricane-hit-dominica-recovery-remains-elusive, accessed 20.08.2022.

Barclay, J.

    2019   Historical Trajectories of Disaster Risk in Dominica. *Int J Disaster Risk Sci*, 10, 149–165.

Barker, D.

    2012   Caribbean Agriculture in a Period of Global Change: Vulnerabilities and Opportunities. *Caribbean Studies,* 40(2), 41-61.

Barnett, J., Matthew, R.A. and O'Brien, K.L.

    2010   Global Environmental Change and Human Security: An Introduction. In: *Global Environmental Change and Human Security* [Matthew, R.A., Barnett, J., McDonald, B. and O'Brien, K.L. (eds.)]. The MIT Press: Cambridge, Massachusetts London, England, pp.3-32.

Barnett, J and Adger, W.N.

    2007   Climate Change, Human Security and Violent Conflict. *Political Geography,* 26, 639-655.

Bell, D.

    2013   Climate Change and Human Rights. *WIREs Clim Change*, 4, 159–170.

Benjamisen, T. A. and Ba, B.

    2009   Farmer–Herder Conflicts, Pastoral Marginalisation and Corruption: A Case Study from the Inland Niger Delta of Mali. *The Geographical Journal,* 175(1), 71–81.

Benson, C. and Clay, E.

    2004   *Understanding the Economic and Financial Impacts of Natural Disasters.* Disaster Risk Management Series No. 4. The World Bank: Washington D.C.

Benson, C., Clay, E., Michael, F.V. and Robertson, A.W.

    2001   Dominica: Natural Disasters and Economic Development in a Small Island State. Disaster Risk Management Series No. 2. The World Bank: Washington D.C.

Brklacich, M., Chanzan, M. and Bohle, H.-G.

    2010   Human Security, Vulnerability, and Global Environmental Change. In: *Global Environmental Change and Human Security* [Matthew, R.A., Barnett, J. McDonald, B. and O'Brien, K.L. (eds.)]. The MIT Press, pp.35-51.

Burrows, K. and Kinney, P.L.

    2016   Exploring the Climate Change, Migration and Conflict Nexus. *Int. J. Environ. Res. Public Health*, 13(443), 1-17.

Byron, J., Martinez, J.L., Montoute, A. and Niles, K.

    2021   Impacts of COVID-19 in the Commonwealth Caribbean: Key Lessons. *The Round Table,* 110(1), 99-119.

Cabot, C.

    2017   Climate Change and Farmer–Herder Conflicts in West Africa. In: Climate Change, Security Risks and Conflict Reduction [Cabot, C. (ed.)]. Hexagon Series on Human and Environmental Security and Peace, 12. Springer, Berlin, Heidelberg.

Cantor, D. J.

    2018   *Cross-Border Displacement, Climate Change and Disasters: Latin America and the Caribbean.* Study Prepared for UNHCR and PDD at Request of Governments Participating in the 2014 Brazil Declaration and Plan of Action. Available at: https://www.unhcr.org/protection/environment/5d4a7b737/cross-border-displacement-climate-change-disasters-latin-america-caribbean.html, accessed 19.08.2022.

Caribbean Development Bank (CDB)

    2020   *Caribbean Development Bank Annual Report 2020.* Barbados, West Indies.

Caribbean Disaster Emergency Management Agency (CDEMA)

    2014a   *Regional Comprehensive Disaster Management (CDM): Strategy & Results Framework – Summary 2014-2024.* CDEMA, Barbados.

Centre for Research on the Epidemiology of Disasters (CRED)

    2021   2021 Disasters in Numbers. Available at: https://www.emdat.be/publications, accessed 05.08.2022.

Chen, J. and Mueller, V.

    2019   Climate-induced Cross-border Migration and Change in Demographic Structure. *Population and Environment*, 41, 98–125.

Clement, V., Rigaud, K.K., de Sherbinin, A., Jones, B., Adamo, S., Schewe, J., Sadiq, N. and Shabahat, E.

    2021   *Groundswell Part 2 : Acting on Internal Climate Migration*. World Bank, Washington, DC.

Climate Studies Group Mona (eds.)

    2020   *The State of the Caribbean Climate*. Produced for the Caribbean Development Bank.

Commission on Human Security (CHS)

    2003   *Human Security Now.* Commission on Human Security: New York, USA.

Cubie, D.

    2017   In-situ Adaptation: Non-migration as a Coping Strategy for Vulnerable Persons. In: *Climate Change, Migration and Human Rights* [Manou, D. Baldwin, A., Cubie, D., Mihr, A. and Thorp, T. (Eds.)], Routledge Studies in Environmental Migration, Displacement and Resettlement. Routledge, pp.99-114.

Daley, O., Isaac, W-A. P., John, A., Roopnarine, R., and Forde, K.

    2022   An Assessment of the Impact of COVID-19 on the Agri-Food System in Caribbean Small Island Developing States. Front. Sustain. Food Syst., 6(861570), 1-15.

Day, A. and Caus, J.

    2020   *Conflict Prevention in an Era of Climate Change: Adapting the UN to Climate-Security Risks.* United Nations University: New York.

Elliot, L.

    2011   *Climate Change, Migration and Human Security in Southeast Asia.* Policy Brief No.13, Singapore: RSIS Centre for Non-Traditional Security (NTS) Studies.

Ferdinand, I., O'Brien, G., O'Keefe, P. and Jayawickrama, J.

    2012   The Double Bind of Poverty and Community Disaster Risk Reduction: A Case Study from the Caribbean. *International Journal of Disaster Risk Reduction*, 2, 84–94.

Ferris, E. and Weerasinghe, S.

    2020   Promoting Human Security: Planned Relocation as a Protection Tool in a Time of Climate Change. *Journal on Migration and Human Security,* 8(2), 134-149.

Fernandes, E.C.M., Soliman, A., Confalonieri, R., Donatelli, M., and Tubiello, F.

 2012 *Climate Change and Agriculture in Latin America, 2020-2050: Projected Impacts and Response to Adaptation Strategies.* World Bank, Washington, DC.

Foresight

 2011 *Migration and Global Environmental Change: Future Challenges and Opportunities.* Final Project Report , the Government Office for Science, London.

Forster, J., Shelton, C., White, C.S., Dupeyron, A. and Mizinova, A.

 2022 Prioritising Well-being and Resilience to 'build back better': insights from a Dominican Small-scale Fishing Community. *Disasters,* 46(S1), S51−S77.

Francis, A.

 2019 *Free Movement Agreements and Climate-Induced Migration: A Caribbean Case Study.* Sabin Centre for Climate Change Law – Columbia Law School, USA.

Gasper, D.

 2012 Climate Change: The Need for a Human Rights Agenda within a Framework of Shared Human Security. *Social Research: An International Quarterly*, 79(4), 983-1014.

Gemenne, F., Barnett, J., Adger, W.N. and Dabelko, G.D.

 2014 Climate and Security: Evidence, Emerging Risks, and a New Agenda.

Gemenne, F.

 2011 Why the Numbers Don't Add Up: A Review of Estimates and Predictions of People Displaced by Environmental Changes. *Global Environmental Change,* 21(1), s41-s49.

Government of the Commonwealth of Dominica

 2020 *Dominica Climate Resilience and Recovery Plan 2020-2030.* Climate Resilience Executing Agency of Dominica and the Ministry of Economic Affairs, Planning, Resilience, Sustainable Development, Telecommunications and Broadcasting, Commonwealth of Dominica.

Government of the Commonwealth of Dominica

 2017 Post-Disaster Needs Assessment
Hurricane Maria September 18, 2017. A Report by the Government of the Commonwealth of Dominica. Available at:
https://reliefweb.int/sites/reliefweb.int/files/resources/dominica-pdna-maria.pdf, accessed 20.08.2022.

Grosfoguel, R.

 2002 Modes of Incorporation: Colonial Caribbean Migrants in Western Europe and the United States. In: "*Caribbean Migration: Globalised Identities*" [Chamberlain, M. (ed.)]. Routledge.

Hamza, M., Koch, I. and Plewa, M.

 2017 Disaster-induced displacement in the Caribbean and the Pacific. *Forced Migration Review 56.* Available at:
https://www.fmreview.org/sites/fmr/files/FMRdownloads/en/latinamerica-caribbean/hamza-koch-plewa.pdf, accessed 21.08.2022.

Henry, S., Schoumaker, B. and Beauchemin, C.

 2004 The Impact of Rainfall on the First Out-Migration: A Multi-level Event-History Analysis in Burkina Faso. *Population and Environment,* 25(5), 423–460

Huntjens, P. and Nachbar, K.

 2015 *Climate Change as a Threat Multiplier for Human Disaster and Conflict: Policy and Governance Recommendations for Advancing Climate Security.* The Institute for Global Justice, Working Paper 9, 1-20.

Fernandes, E.C.M., Soliman, A., Confalonieri, R. Donatelli, M., Tubiello, F.

 2012 *Climate Change and Agriculture in Latin America, 2020-2050: Projected Impacts and Response to Adaptation Strategies.* World Bank, Washington, DC.

Internal Displacement Monitoring Centre (IDMC)

    2022   *Global Report on Internal Displacement (GRID), 2022: Children and Youth in Internal Displacement.* Internal Displacement Monitoring Centre (IDMC)/Norwegian Refugee Council.

    2021   *Global Report on Internal Displacement (GRID), 2021: Internal Displacement in a Changing Climate.* Internal Displacement Monitoring Centre (IDMC)/Norwegian Refugee Council.

    2018   *Global Report on Internal Displacement (GRID), 2018.* Internal Displacement Monitoring Centre (IDMC)/Norwegian Refugee Council.

    2017   Positioned for Action – Displacement in the Sendai Framework for disaster risk reduction. Available at: https://www.internal-displacement.org/publications/positioned-for-action-displacement-in-the-sendai-framework-for-disaster-risk-reduction

International Organization for Migration (IOM)

    2021   *Institutional Strategy on Migration, Environment and Climate Change 2021–2030. For a Comprehensive, Evidence and Rights-based Approach to Migration in the Context of Environmental Degradation, Climate Change and Disasters, for the Benefit of Migrants and Societies.* International Organization for Migration: Geneva, Switzerland.

    2018   *Mapping Human Mobility (Migration, Displacement and Planned Relocation) and Climate Change in International Processes, Policies and Legal Frameworks.* Pillar II: Policy – International/Regional Activity II.2. IOM Migration, Environment and Climate Change Division.

    2017   *Migration in the Caribbean: Current Trends, Opportunities and Challenges (Antigua and Barbuda, Bahamas, Belize, Cuba, Dominican Republic, Guyana, Haiti, Jamaica, Saint Vincent and the Grenadines, Suriname, Trinidad and Tobago*). International Organization for Migration (IOM): San José, Costa Rica.

    2014   *IOM Outlook on Migration, Environment and Climate Change.* International Organization for Migration (IOM): Geneva, Switzerland.

International Organization for Migration (IOM) and Internal Displacement Monitoring Centre (IDMC)

    2022   Displacement indicators for DRR. Available at: https://environmentalmigration.iom.int/sites/g/files/tmzbdl1411/files/documents/IOM-IDMC-%20Disaster%20Displacement%20Indicators%20-%20Version%20for%20comments.pdf, accessed 01.11.2022.

Ionesco, D., Mokhnacheva, D. and Gemenne, F.

    2017   *The Atlas of Environmental Migration* (First Edition). Routledge: London and New York, pp.172.

International Federation of Red Cross and Red Crescent Societies (IFRC)

    2020   *Come Heat or High Water: Tackling the Humanitarian Impacts of the Climate Crisis Together.* World Disasters Report 2020. IFRC, Geneva: Switzerland.

Intergovernmental Panel on Climate Change (PCC)

    2022   Summary for Policymakers [H.-O.Pörtner, D.C.Roberts, E.S.Poloczanska, K.Mintenbeck, M.Tignor, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem (eds.)]. 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 [H.-O.Pörtner, D.C.Roberts, M.Tignor, E.S.Poloczanska, K.Mintenbeck, A.Alegría, M.Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem, B. Rama (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA, pp. 3–33.

    2018   Summary for Policymakers. In: *Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty*

[Masson-Delmotte, V., P. Zhai, H.-O. Pörtner, D. Roberts, J. Skea, P.R. Shukla, A. Pirani, W. Moufouma-Okia, C. Péan, R. Pidcock, S. Connors, J.B.R. Matthews, Y. Chen, X. Zhou, M.I. Gomis, E. Lonnoy, T. Maycock, M. Tignor, and T. Waterfield (eds.)]. In Press.

Jones, B.T., Mattiacci, E., and Braumoeller, B.F.
    2017   Food Scarcity and State Vulnerability: Unpacking the Link between Climate Variability and Violent Unrest. *Journal of Peace Research,* 54(3), 335-350.

Karmalkar, A.V. et al.
    2013   A review of observed and projected changes in climate for the islands in the Caribbean. *Atmósfera,* 26(2), 283-309.

Kelman, I.
    2018   Islanders within Climate Change Narratives of Small Island Developing States (SIDS). *Island Studies Journal,* 13(1),149-166.

Kevane, M. and Gray, L.
    2008   Darfur: Rainfall and Conflict. *Environ. Res. Lett.,* 3, 1-10.

Matthew, R. and Upreti, B.R.
    2010   Environmental Change and Human Security in Nepal. . In: *Global Environmental Change and Human Security* [Matthew, R.A., Barnett, J., McDonald, B. and O'Brien, K.L. (eds.)]. The MIT Press: Cambridge, Massachusetts London, England, pp. 137-154.

Maurice-George, N.
    2020   *Human Mobility in the Context of Climate Change: Implications of the COVID-19 Pandemic in the Eastern Caribbean.* Policy Brief, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)/Organization of Eastern Caribbean States.

Maynard-Ford, M.C., Phillips, E.C. and Chirico, P.G.
    2008   Mapping Vulnerability to Disasters in Latin America and the Caribbean, 1900–2007. United States Geological Survey Open-File Report 2008– 1294, 30 p.

Meade, S.
    2021   Climate Migration and Human Security. Available at: https://soundideas.pugetsound.edu/cgi/viewcontent.cgi?article=1029andcontext=ipe_thes es#:~:text=Climate%20migration%20does%20not%20pose,to%20make%20long%2Ddist ance%20migrations, accessed 03.08.2022.

Melde, S. Laczko, F. and Gemenne, F. (eds.)
    2017   *Making Mobility Work for Adaptation to Environmental Changes: Results from the MECLEP Global Research.* International Organization for Migration, Geneva, Switzerland.

Mohan, P. and Strobl, E.
    2013   The Economic Impact of Hurricanes in History: Evidence from Sugar Exports in the Caribbean from 1700 to 1960. *Weather, Climate, and Society,* 5(1), 5-13.

Mohan, P.
    2017   Impact of Hurricanes on Agriculture: Evidence from the Caribbean. *Nat. Hazards Rev.,* 18(3), 04016012.

Mowla, W.
    2021   The Cycle of Risk: Impact of Climate Change on Security Challenges in the Caribbean. Available at: https://digitalcommons.fiu.edu/jgi_research/46/, accessed 16.08.2022.

Mulcahy, M.
    2008   *Hurricanes and Society in the British Greater Caribbean, 1624–1783.* Johns Hopkins University Press.

Mycoo, M., Wairiu, M., Campbell, D., Duvat, V., Golbuu, Y., Maharaj, S., Nalau, J., Nunn, P., Pinnegar, J. and Warrick, O.
    2022   Small Islands. *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* [H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K.

Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem, B. Rama (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA, pp. 2043–2121, doi:10.1017/9781009325844.017.

Nurse, L.A., McLean, R.F., Agard, J., Briguglio, L.P., Duvat-Magnan, V., Pelesikoti, N.., Tompkins, E. and Webb, A.

2014   Small Islands. In: *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part B: Regional Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Barros, V.R., C.B. Field, D.J. Dokken, M.D. Mastrandrea, K.J. Mach, T.E. Bilir, M. Chatterjee, K.L. Ebi, Y.O. Estrada, R.C. Genova, B. Girma, E.S. Kissel, A.N. Levy, S. MacCracken, P.R. Mastrandrea, and L.L. White (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp.1613-1654.

O'Brien, K. et al.

2008   *Disaster Risk Reduction, Climate Change Adaptation and Human Security.* Report prepared for the Royal Norwegian Ministry of Foreign Affairs by the Global Environmental Change and Human Security (GECHS) Project, GECHS Report 2008:3.

Organisation of Eastern Caribbean States (OECS) Commission

2021   Border Officials Receive Advanced Training to Support Cross Border Movement in Disaster Scenarios. Available at: https://pressroom.oecs.org/border-officials-receive-advanced-training-to-support-cross-border-movement-in-disaster-scenarios, accessed 30.10.2022.

2020a   *COVID-19 and Beyond: Impact Assessments and Responses.* OECS Commission, Saint Lucia.

2020b   Social Inclusion and Social Protection Strategic Framework. Available at: https://www.oecs.org/en/our-work/knowledge/library/social-development/social-inclusion-and-social-protection-strategic-framework-july21-2020, accessed 01.11.2022.

2015   OECS Policy on Rights Contingent on The Right to Freedom of Movement Within the Economic Union. Available at: https://www.oecs.org/en/our-work/knowledge/library/regional-integration/oecs-policy-on-rights-contingent-on-the-right-to-freedom-of-movement-within-the-economic-union, accessed 01.11.2022.

Podesta, J. and Ogden, P.

2008   The Security Implications of Climate Change. *Washington Quarterly,* 31(1), 115-138.

Piguet, E. & Laczko, F. (eds.)

2014   People on the Move in a Changing Climate: The Regional Impact of Environmental Change on Migration. Global Migration Issues 2, Springer: Dordrecht.

Platform on Disaster Displacement (PDD)

2017   Disaster Displacement and Disaster Risk Reduction – to inform the Global Platform on DRR, Cancun, México, 22-26 May 2017 (Policy Brief). Available at: https://docs.google.com/viewerng/viewer?url=https://disasterdisplacement.org/wp-content/uploads/2017/05/12052017_Policy_Brief_screen.pdf&hl=en, accessed 18.09.2022.

Raleigh, C. and Kniveton, D.

2012   Come Rain or Shine: An Analysis of Conflict and Climate Variability in East Africa. *Journal of Peace Research,* 49(1) 51–64.

Rigaud, K.K., de Sherbinin, A., Bryan, J., Bergmann, J, Clement, V., Ober, K., Schewe, J., Adamo, S., McCusker, B., Heuser, S. and Midgley, A.

2018   *Groundswell: Preparing for Internal Climate Migration.* World Bank: Washington, DC, USA.

Rhiney, K.

2015   Geographies of Caribbean Vulnerability in a Changing Climate: Issues and Trends. *Geography Compass,* 9(3)97–114.

Schicklinski, J. and Noorali, Z.

    2011   Slowly, but Surely: The Environment, Climate Change and Migration in ACP Countries. ACPOBS/2011/BN04, ACP Observatory on Migration, Brussels, Belgium.

Sen, A.

    1999   *Development as Freedom.* Anchor Books.

Schnitter, R. et al.

    2018   An Assessment of Climate Change and Health Vulnerability and Adaptation in Dominica. *International Journal of Environmental Research and Public Health,* 16, 70, 1-17.

Smith, R.-A. and Rhiney, K.

    2018   Climate (In)justice, Vulnerability and Livelihoods in the Caribbean: The case of the indigenous Caribs in Northeastern St. Vincent. *Geoforum*, 73, 22–31.

Spencer, N. and Urquhart, M.A.

    2018   Hurricane Strikes and Migration: Evidence from Storms in Central America and the Caribbean. *Weather, Climate and Society,* 10, 569-577.

Sobhee, S and Blocher, J.

    2015   Using Migration to Develop Resilience against Climate Change in Mauritius. *Migration, Environment and Climate Change: Policy Brief Series,* 11(1), 1-8.

Sou, G.

    2019   Barbudans are resisting 'disaster capitalism', two years after Hurricane Irma. *The Conversation.* Retrieved from: https://theconversation.com/barbudans-are-resisting-disaster-capitalism-two-years-after-hurricane-irma-119368, 19.08.2022.

Stojanov, R. et al.

    2021   Human Mobility in the Context of Climate Change and Development Cooperation. Online Appendix. In: *Evaluierung von Maßnahmen zur Anpassung an den Klimawandel. Instrumente zum Umgang mit residualen Klimarisiken* [Leppert, G. et al. (2021)]. Deutsches Evaluierungsinstitut der Entwicklungszusammenarbeit (DEval), Bonn.

Suckall, N., Fraser, F. and Forster, P.

    2017   Reduced Migration under Climate Change: Evidence from Malawi using an Aspirations and Capabilities Framework. *Climate and Development,* 9(4), 298-312.

Taylor, M.A., Clarke, L.A., Centella, A., Bezanilla, A., et al.

    2018   Future Caribbean Climates in a World of Rising Temperatures: The 1.5 vs 2.0 Dilemma. *Journal of Climate*, 31(7), 2907–2926.

Taylor, M.

    2017   Climate change in the Caribbean – Learning Lessons from Irma and Maria. Available at: https://www.theguardian.com/environment/2017/oct/06/climate-change-in-the-caribbean-learning-lessons-from-irma-and-maria, accessed 19.08.2022.

Terminski, B.

    2012   Environmentally-induced Displacement and Human Security. Geneva. Available at: https://nbn-resolving.org/urn:nbn:de:0168-ssoar-359828, accessed 11.08.2022.

The UN Advisory Group on Climate Change and Human Mobility

    2015   Human Mobility in the Context of Climate Change UNFCCC – Paris COP-21. Recommendations from the Advisory Group on Climate Change and Human Mobility (November 2015). Available at: https://www.unhcr.org/protection/environment/565b21bd9/human-mobility-context-climate-change-unfccc-paris-cop-21-recommendations.html, accessed 20.09.2022.

    2014   *Human Mobility in the context Of Climate Change: Recommendations from the Advisory Group on Climate Change and Human Mobility Cop20 Lima, Peru*. Available at: https://www.iom.int/files/live/sites/iom/files/pbn/docs/Human-Mobility-in-the-context-of-Climate-Change.pdf, accessed 20.09.2022.

The Nansen Initiative

    2015   *Agenda for The Protection of Cross-Border Displaced Persons in The Context of Disasters and Climate Change,* Volume 1. The Nansen Initiative. Available at: https://nanseninitiative.org/wp-content/uploads/2015/02/PROTECTION-AGENDA-VOLUME-1.pdf, accessed 20.08.2022.

Thomas, A and Benjamin, L.

    2020   Non-Economic Loss and Damage: Lessons from Displacement in the Caribbean. *Climate Policy,* 20(6), 715-728.

United Nations (UN) and Organisation of Eastern Caribbean States Commission (OECS)

    2020   COVID-19 Multi-Sectoral Response Plan for the Eastern Caribbean – Funding Appeal. Available at: https://www.humanitarianresponse.info/es/operations/latin-america-and-caribbean/document/caribbean-covid-19-multi-sectoral-responseplan, accessed 18.08.2022.

United Nations (UN)

    2007   Security Council holds first-ever debate on Impact of Climate Change on Peace, Security, hearing over 50 Speakers. 5663rd Meeting (AM and PM), SC/9000. Available at: https://press.un.org/en/2007/sc9000.doc.htm, accessed 11.08.2022.

United Nations Department of Economic and Social Affairs (UN-DESA)

    2015   Integrating migration into the 2030 Agenda for Sustainable Development. POPFACTS, No. 2015/5. Available at: https://www.un.org/en/development/desa/population/publications/pdf/popfacts/PopFacts_2015-5.pdf, accessed 20.09.2022.

United Nations Development Programme (UNDP)

    2020   *Policy Brief – Climate Security. A Typology and Analysis of Climate-related Security risks in the first round Nationally Determined Contributions.* UNDP: New York, USA.

    1994   *Human Development Report 1994: New Dimensions of Human Security.* New York.

United Nations Environment Programme (UNEP)

    2021   *Are we Building Back Better: Evidence from 2020 and Pathways to Inclusive Green Recovery Spending.* United Nations Environment Programme: Nairobi, Kenya.

United Nations Framework Convention on Climate Change (UNFCCC)

    2015   Report of the Conference of the Parties on its twenty-first session, held in Paris from 30 November to 13 December 2015 (FCCC/CP/2015/10). Available at: https://unfccc.int/resource/docs/2015/cop21/eng/10.pdf, accessed 19.09.2022.

    2018   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. (Decision -/CP.24). Available at: https://unfccc.int/sites/default/files/resource/cp24_auv_ec%20wim.pdf, accessed 20.09.2022.

    2012   Approaches to address loss and damage associated with climate change impacts in developing countries that are particularly vulnerable to the adverse effects of climate change to enhance adaptive capacity. FCCC/CP/2012/8/Add.1. Available at: https://unfccc.int/resource/docs/2012/cop18/eng/08a01.pdf#page=21, accessed 15.09.2022.

    2011   Report of the Conference of the Parties on its sixteenth session, held in Cancun from 29 November to 10 December 2010. Part Two: Action taken by the Conference of the Parties at its sixteenth session. FCCC/CP/2010/7/Add.1. Available at: https://unfccc.int/resource/docs/2010/cop16/eng/07a01.pdf, accessed 15.09.2022.

United Nations General Assembly (UNGA)

2019   Global Compact for Safe, Orderly and Regular Migration. Resolution adopted by the General Assembly on 19 December 2018. A/RES/73/195. Available at: https://documents-dds-ny.un.org/doc/UNDOC/GEN/N18/451/99/PDF/N1845199.pdf?OpenElement, accessed 21.08.2022.

2017a   Resolution 71/313 - Work of the Statistical Commission pertaining to the 2030 Agenda for Sustainable Development (A/RES/71/313). Available at: https://undocs.org/A/RES/71/313, accessed 18.09.2022.

2017b   Report of the open-ended intergovernmental expert working group on indicators and terminology relating to disaster risk reduction. (UN Doc A/RES/71/276). Available at: https://www.preventionweb.net/files/resolutions/N1702972_en.pdf, 18.09.2022.

2016   Report of the Open-Ended Intergovernmental Expert Working Group on Indicators and Terminology Relating to Disaster Risk Reduction. (A/71/644). Available at: https://www.preventionweb.net/publication/report-open-ended-intergovernmental-expert-working-group-indicators-and-terminology, accessed 18.09.2022.

2015a   Transforming our world: the 2030 Agenda for Sustainable Development. Resolution adopted by the General Assembly on 25 September 2015. A/RES/70/1. Available at: https://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E, accessed 22.08.2022.

2015b   Establishment of an open-ended intergovernmental expert working group on indicators and terminology related to disaster risk reduction. (A/RES/69/284). Available at: https://documents-dds-ny.un.org/doc/UNDOC/GEN/N15/167/23/PDF/N1516723.pdf?OpenElement, accessed 18.09.2022.

2012a   The Future We Want. Resolution Adopted by the General Assembly on 27 July 2012. A/RES/66/288. Available at: https://www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/A_RES_66_288.pdf, accessed 16.08.2022.

2012b   Follow-up to paragraph 143 on human security of the 2005 World Summit Outcome (A/RES/66/290). Available at https://documents-dds-ny.un.org/doc/UNDOC/GEN/N11/476/22/PDF/N1147622.pdf?OpenElement, accessed 19.09.2022.

United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA)

2004   Guiding Principles on Internal Displacement. Available at: https://www.unhcr.org/43ce1cff2.pdf, accessed 20.10.2022.

United Nations Office for Disaster Risk Reduction (UNISDR)

2018   Technical guidance for monitoring and reporting on progress in achieving the global targets of the Sendai Framework for Disaster Risk Reduction. Available at: https://www.preventionweb.net/files/54970_techguidancefdigitalhr.pdf, accessed 20.09.2022.

2015   *Sendai Framework for Disaster Risk Reduction 2015-2030.* United Nations Office for Disaster Risk Reduction: Geneva, Switzerland.

United Nations Trust Fund for Human Security (UNTFHS)

2021a   *Realizing the Triple Nexus: Experiences from Implementing the Human Security Approach.* UN Human Security Unit.

2021b   *Leave No One Behind: Harnessing Lessons Learned from Implementing the Human Security Approach.* UN Human Security Unit.

2016   *Human Security Handbook: An integrated Approach for the realization of the Sustainable Development Goals and the Priority areas of the International Community and the United Nations System.* UN Human Security Unit.

Vinke, K., Blocher, J., Becker, M., Ebay, J.S., Fong, T. and Kambon, A.
    2020   Home Lands Island and Archipelagic States' Policymaking for Human Mobility in the Context of Climate Change. GIZ/PIK.

Vivekananda, J.
    2022   *Reimagining the Human- Environment Relationship: Why Climate Change Matters for Human Security.* United Nations University Centre for Policy research and United Nations Environment Programme (UNEP).

Wall, K., Aulin, J. and Vogelaar, G.
    2014   *Empowerment and Protection: Stories of Human Security.* The Global Partnership for the Prevention of Armed Conflict; The Hague, The Netherlands.

Westbury, T.
    2022   Navigating Human Security and Climate Mobility in the Pacific Sea of Islands. Pacific Climate Change Migration and Human Security: Policy Brief Series, PUB2022/083/R.

Wilkinson, E., Kirbyshire, A., Mayhew, L., Batra, P. and Milan, A.
    2016   *Climate-Induced Migration and Displacement: Closing the Policy Gap.* Overseas Development Institute, London.

Yee, M., Piggott-McKellar, A.E., McMichael, C. and McNamara, K.E.
    2022   Climate Change, Voluntary Immobility, and Place-Belongingness: Insights from Togoru, Fiji. *Climate*, 10(46), 1-20.

Annex 1 Outline of Provisions in Selected Global Frameworks

Table 1 Provisions Related to Environmental Migration, Disaster and Displacement in the Global Compact for Migration (GCM)		
Provision	**Content**	**Main topic**
Objective 2 (Paragraph 18)	"(a) Promote the implementation of the 2030 Agenda for Sustainable Development, including the Sustainable Development Goals and the Addis Ababa Action Agenda, and the commitment to reach the furthest behind first, as well as the Paris Agreement and the Sendai Framework for Disaster Risk Reduction 2015-2030." "(g) Account for migrants in national emergency preparedness and response, including by taking into consideration relevant recommendations from State-led consultative processes, such as the Guidelines to Protect Migrants in Countries Experiencing Conflict or Natural Disaster (MICIC Guidelines)." "(h) Strengthen joint analysis and sharing of information to better map, understand, predict and address migration movements, such as those that may result from sudden-onset and slow-onset natural disasters, the adverse effects of climate change, environmental degradation, as well as other precarious situations, while ensuring the effective respect, protection and fulfilment of the human rights of all migrants." "(i) Develop adaptation and resilience strategies to sudden-onset and slow-onset natural disasters, the adverse effects of climate change, and environmental degradation, such as desertification, land degradation, drought and sea level rise, taking into account the potential implications on migration, while recognizing that adaptation in the country of origin is a priority." "(j) Integrate displacement considerations into disaster preparedness strategies and promote cooperation with neighbouring and other relevant countries to prepare for early warning, contingency planning, stockpiling, coordination mechanisms, evacuation planning, reception and assistance arrangements, and public information." "(k) Harmonise and develop approaches and mechanisms at subregional and regional levels to address the vulnerabilities of persons affected by sudden-onset and slow-onset natural disasters, by ensuring they have access to humanitarian assistance that meets their essential needs with full respect for their rights wherever they are, and by promoting sustainable outcomes that increase resilience and self-reliance, taking into account the capacities of all countries involved." "(l) Develop coherent approaches to address the challenges of migration movements in the context of sudden-onset and slow-onset natural disasters, including by taking into consideration relevant recommendations from State-led consultative processes, such as the Agenda for the Protection of Cross-Border Displaced Persons in the Context of Disasters and Climate Change, and the Platform on Disaster Displacement."	Minimise the adverse drivers and structural factors that compel people to leave their country of origin
Objective 5 (Paragraph 21)	"(g) Develop or build on existing national and regional practices for admission and stay of appropriate duration based on compassionate, humanitarian or other considerations for migrants compelled to leave their countries of origin, due to sudden-onset natural disasters and other precarious situations, such as by providing humanitarian visas, private sponsorships, access to education for children, and temporary work permits, while adaptation in or return to their country of origin is not possible." "(h) Cooperate to identify, develop and strengthen solutions for migrants compelled to leave their countries of origin due to slow-onset natural disasters, the adverse effects of climate change, and environmental degradation, such as desertification, land degradation, drought and sea level rise, including by devising planned relocation and visa options, in cases where adaptation in or return to their country of origin is not possible."	Enhance availability and flexibility of pathways for regular migration
Objective 7 (Paragraph 23)	"(j) Apply specific support measures to ensure that migrants caught up in situations of crisis in countries of transit and destination have access to consular protection and humanitarian assistance, including by facilitating cross-border and broader international cooperation, as well as by taking migrant populations into account in crisis preparedness, emergency response and post-crisis action." "(l) Develop national policies and programmes to improve national responses that address the needs of migrants in situations of vulnerability, including by taking into consideration relevant recommendations of the Global Migration Group Principles and Guidelines, Supported by Practical Guidance, on the Human Rights Protection of Migrants in Vulnerable Situations."	Address and reduce vulnerabilities in migration

Source: UNGA (2019)

Table 2 Indicators that Focus on Environmental Migration and Disaster Displacement from the Global Compact for Migration (GCM)	
Provision	**Indicator**
Objective 2 Paragraph 18 (a)	**Indicator 1:** Are the commitments related to the 2030 Agenda for Sustainable Development, the Addis Ababa Action Agenda, the Paris Agreement, and/or the Sendai Framework for Disaster Risk Reduction integrated in national migration policy instruments?
Objective 2 Paragraph 18 (g)	**Indicator 2:** Are there provisions in relevant national legal and policy instruments promoting the consideration of the human rights, specific needs, vulnerabilities and capacities of migrants in disaster preparedness and response?
	Sub-indicator 2.1: Do they integrate considerations regarding the human rights, specific needs and vulnerabilities of migrant populations into national operational frameworks and tools for disaster preparedness and response?
Objective 2 Paragraph 18 (h)	**Indicator 3:** At the national level, are there provisions that set the responsibility for collecting, managing and disseminating information about human (im)mobility in the context of climate and/or other environmental changes? (or) **Indicator 3:** Are there national data collection and information sharing systems to provide evidence for decision-making on human mobility in disaster and climate change contexts?
	Indicator 4: Are there mechanisms in relevant national legal and policy instruments that ensure the protection of migrants' human rights? Could they be applied to population movements triggered by the impacts of climate and/or other environmental changes?
Objective 2 Paragraph 18 (i)	**Indicator 5:** At the national level, are there legal and policy instruments in place aimed at enhancing adaptation and resilience to disasters, as well as to other climate and/or environmental changes?
	Sub-indicator 5.1: Do these instruments consider the potential implications of disasters, climate and/or other environmental changes for migration patterns?
	Sub-indicator 5.2: Do these instruments recognize adaptation as a viable strategy for disaster and other climate impacts resilience?
Objective 2 Paragraph 18 (j)	**Indicator 6:** Do existing legal and policy instruments related to disaster risk reduction stipulate the incorporation of displacement into preparedness strategies?
	Sub-indicator 6.1: Are there disaster preparedness strategies in place? Do they include provisions on human displacement?
Objective 2 Paragraph 18 (k)	**Indicator 7:** Does the country participate in subregional or regional cooperation efforts for humanitarian assistance to persons affected by sudden-onset and slow-onset disasters that consider the human rights and particular vulnerabilities and needs of migrants and displaced people?
Objective 2 Paragraph 18 (l)	**Indicator 8:** Do existing legal and policy instruments offer coherent approaches to address the challenges surrounding human mobility in the context of disaster, climate and/or other environmental changes?
	Sub-indicator 8.1: Is there any reference to the Nansen Initiative Protection Agenda?
Objective 5 Paragraph 21 (g)	**Indicator 9:** Are there national legal and policy instruments for admission and stay for migrants from countries affected by sudden-onset disaster?
	Sub-indicator 9.1: In such cases, are humanitarian visas and/or temporary work permits provided?
Objective 5 Paragraph 21 (h)	**Indicator 10:** Are there legal and policy instruments that aim at the identification, development and strengthening of solutions to avert cross-border population movements as a result of slow-onset events and other adverse effects of climate change?
Objective 7 Paragraph 23 (j)	**Indicator 10:** Do legal and policy instruments foresee specific support measures for migrants who face crisis situations (i.e. climate-related disaster), such as access to consular and/or humanitarian assistance?
Objective 7 Paragraph 23 (j)	**Indicator 11:** Are there legal and policy instruments to address the needs of migrants in vulnerable situation, such as migrants affected by the impacts of climate and/or other environmental changes in the country of destination?

Source: Developed by authors (2022).

Table 3 References to Environmental Migration and Disaster Displacement in the 2030 Agenda for Sustainable Development		
Provision	**Content**	**Main topic**
Target 1.5	"By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters; […]."	Sustainable Development Goal 1: End poverty in all its forms everywhere
Target 11.5	"By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations; [...]."	Sustainable Development Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable
Target 11.b	"By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030, holistic disaster risk management at all levels; [...]."	
Target 13.1	"Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries; […]."	Sustainable Development Goal 13: Take urgent action to combat climate change and its impacts
Target 13.2	"Integrate climate change measures into national policies, strategies and planning; […]."	
Target 13.3	"Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning; […]."	
Target 13.a	"Implement the commitment undertaken by developed-country parties to the United Nations Framework Convention on Climate Change to a goal of mobilising jointly $100 billion annually by 2020 from all sources to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation and fully operationalize the Green Climate Fund through its capitalization as soon as possible; [...]."	
Target 13.b	"Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalised communities; […]."	
Target 17.14	"Enhance policy coherence for sustainable development; […]."	Sustainable Development Goal 17: Strengthen the means of implementation and revitalise the global partnership for sustainable development

Source: UNGA (2015a).

Table 4 Indicators Related Environmental Migration and Disaster Displacement in the Sustainable Development Goals – Agenda 2030 for Sustainable Development	
Provision	**Indicator**
Target 1.5	1.5.1 Number of deaths, missing persons and persons and directly affected persons attributed to disaster per 100,000 population.
	1.5.2 Direct economic loss attributed to disaster in relation to global gross domestic product (GDP).
	1.5.3 Number of countries that adopt and implement national disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015-2030.
	1.5.4 Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with national disaster risk reduction strategies.
Target 11.5	11.5.1 Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population.
	11.5.2 Direct economic loss in relation to global GDP, damage to critical infrastructure and number of disruptions to basic services, attributed to disasters.
Target 11.b	11.b.1 Number of countries that adopt and implement national disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015-2030.
	11.b.2 Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with national disaster risk reduction strategies.
Target 13.1	13.1.1 Number of deaths, missing persons and directly affected persons attributed to disaster per 100,000 population.
	13.1.2 Number of countries that adopt and implement national disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015-2030.
	13.1.3 Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with national disaster risk reduction strategies.
Target 13.2	13.2.1 Number of countries that have communicated the establishment or operationalization of an integrated policy/strategy/plan which increases their ability to adapt to the adverse impacts of climate change, and foster climate resilience and low greenhouse gas emissions development in a manner that does not threaten food production (including a national adaptation plan, nationally determined contribution, national communication, biennial update report or other).

Source: UNGA (2017a)

Table 5 References and/or Provisions Related to Environmental Migration and Disaster Displacement in the Paris Agreement		
Provision	**Content**	**Main topic**
Decision 1/CP.21 - Adoption of the Paris Agreement (Paragraph 49)	"Also requests the Executive Committee of the Warsaw International Mechanism to establish, according to its procedures and mandate, a task force to complement, draw upon the work of and involve, as appropriate, existing bodies and expert groups under the Convention including the Adaptation Committee and the Least Developed Countries Expert Group, as well as relevant organisations and expert bodies outside the Convention, to develop recommendations for integrated approaches to avert, minimise and address displacement related to the adverse impacts of climate change."	Establishment of the Task Force on Displacement (TFD).
Preamble	"Acknowledging that climate change is a common concern of humankind, Parties should, when taking action to address climate change, respect, promote and consider their respective obligations on human rights, the right to health, the rights of indigenous peoples, local communities, migrants, children, persons with disabilities and people in vulnerable situations and the right to development, as well as gender equality, empowerment of women and intergenerational equity, [...]."	Human rights.
Article 7 (1) (2)	Art. 7 (1). "Parties hereby establish the global goal on adaptation of enhancing adaptive capacity, strengthening resilience and reducing vulnerability to climate change, with a view to contributing to sustainable development and ensuring an adequate adaptation response in the context of the temperature goal referred to in Article 2." Art. 7(2). "Parties recognize that adaptation is a global challenge faced by all with local, subnational, national, regional and international dimensions, and that it is a key component of and makes a contribution to the long-term global response to climate change to protect people, livelihoods and ecosystems, taking into account the urgent and immediate needs of those developing country Parties that are particularly vulnerable to the adverse effects of climate change."	People and livelihood protection, as well as resilience of communities.
Article 8 (4) (h)	Art. 8 (4)(h). "Accordingly, areas of cooperation and facilitation to enhance understanding, action and support may include: […] Resilience of communities, livelihoods and ecosystems."	People and livelihood protection, as well as resilience of communities.

Source: UNFCCC (2015)

Table 6 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, Minimising and Addressing Displacement Related to the Adverse Impacts of Climate Change	
Provision	**Content**
Article 1 (g) (i)	"To consider formulating laws, policies and strategies, as appropriate, that reflect the importance of integrated approaches to avert, minimise and address displacement related to the adverse impacts of climate change and in the broader context of human mobility, taking into consideration their respective human rights obligations and, as appropriate, other relevant international standards and legal considerations; [...]."
Article 1 (g) (ii)	"To enhance research, data collection, risk analysis and sharing of information to better map, understand and manage human mobility related to the adverse impacts of climate change in a manner that includes the participation of communities affected and at risk of displacement related to the adverse impacts of climate change; [...]."
Article 1 (g) (iii)	"To strengthen preparedness, including early warning systems, contingency planning, evacuation planning and resilience-building strategies and plans, and develop innovative approaches, such as forecast-based financing, to avert, minimise and address displacement related to the adverse impacts of climate change; [...]."
Article 1 (g) (iv)	"To integrate climate change related human mobility challenges and opportunities into national planning processes, as appropriate, by drawing on available tools, guidance and good practices, and consider communicating these efforts undertaken, as appropriate; [...]."
Article 1 (g) (v)	"To recall the guiding principles on internal displacement and seek to strengthen efforts to find durable solutions for internally displaced people when working to implement integrated approaches to avert, minimise and address displacement related to the adverse impacts of climate change, as appropriate; [...]."
Article 1 (g) (vi)	"To facilitate orderly, safe, regular and responsible migration and mobility of people, as appropriate and in accordance with national laws and policies, in the context of climate change, by considering the needs of migrants and displaced persons, communities of origin, transit and destination, and by enhancing opportunities for regular pathways, including through labour mobility, consistent with international labour standards, as appropriate; [...]."

Source: UNFCCC (2018).

Table 7 Indicators Related to 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, minimising and addressing displacement related to the adverse impacts of climate change	
Provision	**Indicator**
Article 1 (g) (i)	**Indicator 1:** Are there national normative instruments in place that advocate for and/or recognize the relevance of integrated approaches to averting, minimising, and addressing human (im)mobility related to the adverse impacts of climate change?
	Sub-indicator 1.1: If existing, do these national normative instruments consider international human rights obligations, as well as other relevant international policy and legal frameworks? Are they aligned with such human rights obligations and/or other relevant international policy and legal frameworks?
	Sub-indicator 1.2: Have these national normative instruments integrated interministerial and/or intersectoral considerations?
	Sub-indicator 1.3: Were these national normative instruments designed and implemented with the participation of relevant stakeholders?
Article 1 (g) (iv)	**Indicator 2:** Have the challenges surrounding the human mobility - climate change nexus been integrated into the formulation and implementation processes resulting in National Adaptation Plans?
	Indicator 3: Have efforts in incorporating the human mobility dimension into national planning processes been reported in National Communications, National Adaptation Plans, and/or Nationally Determined Contributions?
Article 1 (g) (v)	**Indicator 4:** Are there national normative instruments related to the protection of internally displaced persons that may apply to internal displacement as a result of the adverse effects of climate change?
	Sub-indicator 4.1: Do these national normative instruments consider the Guiding Principles on Internal Displacement?
Article 1 (g) (vi)	**Indicator 5:** Do national normative instruments related to migration facilitate orderly, safe and regular migration in the context of climate change?
	Sub-indicator 5.1: Do these national normative instruments consider the needs of migrants, internally displaced persons, communities of origin, transit and/or destination, as well as provide for enhanced (regular) migration opportunities?
	Sub-indicator 5.2: Are these national normative instruments in line with the Global Compact for Safe, Orderly and Regular Migration?

Source: Developed by the Authors (2022)

Table 8 References to Environmental Migration and Disaster Displacement in the Sendai Framework for Disaster Risk Reduction (2015-2030)		
Provision	**Content**	**Main topic**
Hyogo Framework for Action: Lessons learned, gaps identified and future challenges (Paragraph 7)	"There has to be a broader and more people-centred preventive approach to disaster risk. Disaster risk reduction practices need to be multi-hazard and multisectoral, inclusive and accessible in order to be efficient and effective. While recognizing their leading, regulatory and coordination role, Governments should engage with relevant stakeholders, including women, children and youth, persons with disabilities, poor people, migrants, indigenous peoples, volunteers, the community of practitioners and older persons in the design and implementation of policies, plans and standards."	Hyogo Framework for Action: lessons learned, gaps identified and future challenges
Priority 2 (Paragraph 27)	National and local levels: "(h) To empower local authorities, as appropriate, through regulatory and financial means to work and coordinate with civil society, communities and indigenous peoples and migrants in disaster risk management at the local level; [...]." "(k) To formulate public policies, where applicable, aimed at addressing the issues of prevention or relocation, where possible, of human settlements in disaster-risk-prone zones, subject to national law and legal systems; [...]."	Strengthening disaster risk governance to manage disaster risk
Priority 2 (Paragraph 28)	Global and regional levels: "(d) To promote transboundary cooperation to enable policy and planning for the implementation of ecosystem-based approaches with regard to shared resources, such as within river basins and along coastlines, to build resilience and reduce disaster risk, including epidemic and displacement risk; [...]."	Strengthening disaster risk governance to manage disaster risk
Priority 3 (Paragraph 30)	National and local levels: "(I) To encourage the adoption of policies and programmes addressing disaster-induced human mobility to strengthen the resilience of affected people and that of host communities, in accordance with national laws and circumstances; [...]."	Investing in disaster risk reduction for resilience
Priority 4 (Paragraph 33)	National and local levels: "(h) To promote regular disaster preparedness, response and recovery exercises, including evacuation drills, training and the establishment of area-based support systems, with a view to ensuring rapid and effective response to disasters and related displacement, including access to safe shelter, essential food and non-food relief supplies, as appropriate to local needs; [...]." "(j) To promote the incorporation of disaster risk management into post-disaster recovery and rehabilitation processes, facilitate the link between relief, rehabilitation and development, use opportunities during the recovery phase to develop capacities that reduce disaster risk in the short, medium and long term, including through the development of measures such as land-use planning, structural standards improvement and the sharing of expertise, knowledge, post-disaster reviews and lessons learned and integrate post-disaster reconstruction into the economic and social sustainable development of affected areas. This should also apply to temporary settlement for persons displaced by disasters; [...]." "(m) To strengthen the capacity of local authorities to evacuate persons living in disaster-prone areas; [...]."	Enhancing disaster preparedness for effective response and to "Build Back Better" in recovery, rehabilitation and reconstruction
Role of stakeholders (Paragraph 36)	"(a) (vi) Migrants contribute to the resilience of communities and societies, and their knowledge, skills and capacities can be useful in the design and implementation of disaster risk reduction […]."	Role of stakeholders

Source: UNDRR (2015)

Table 9 Indicators Related to Environmental Migration and Disaster Displacement in the Sendai Framework for Disaster Risk Reduction (2015-2030)	
Global Indicators	
Global Target B: Substantially reduce the number of affected people globally by 2030, aiming to lower the average global figure per 100,000 between 2020-2030 compared with 2005-2015.	
B-1 (Compound)	Number of directly affected people attributed to disasters, per 100,000 population.
B-2	Number of injured or ill people attributed to disasters, per 100,000 population.
B-3	Number of people whose damaged dwellings were attributed to disasters.
B-4	Number of people whose destroyed dwellings were attributed to disasters.
B-5	Number of people whose livelihoods were disrupted or destroyed, attributed to disasters.
Global Target G: Substantially increase the availability of and access to multi-hazard early warning systems and disaster risk information and assessments to the people by 2030.	
G-1 (Compound G2-G5)	Number of countries that have multi-hazard early warning systems.
G-2	Number of countries that have multi-hazard monitoring and forecasting systems.
G-3	Number of people per 100,000 that are covered by early warning information through local governments or through national dissemination mechanisms.
G-4	Percentage of local governments having a plan to act on early warnings.
G-5	Number of countries that have accessible, understandable, usable and relevant disaster risk information and assessment available to the people at the national and local levels.
G-6	Percentage of population exposed to or at risk from disasters protected through pre-emptive evacuation following early warning. *Member States in a position to do so are encouraged to provide information on the number of evacuated people.*
Global Target E: Substantially increase the number of countries with national and local disaster risk reduction strategies by 2020.	
E-1	Number of countries that adopt and implement national disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015-2030.
E-2	Percentage of local governments that adopt and implement local disaster risk reduction strategies in line with national strategies. *Information should be provided on the appropriate levels of government below the national level with responsibility for disaster risk reduction.*

Source: UNGA (2017)

Table 10 Indicators Related to Environmental Migration and Disaster Displacement Nexus in the Sendai Framework for Disaster Risk Reduction (2015-2030)	
National Indicators	
Priority 2	**Indicator 1:** Are there legal and policy instruments addressing human settlements in risk areas?
	Indicator 2: Are there legal and policy instruments providing for planned relocation as a strategy to disaster risk management? Would it be possible to inform how many people have already benefited from planned relocation in order to prevent and/or reduce the risk of disasters?
	Sub-indicator 2.1: Has the instrument already been used by the national government to address human settlements in risk areas?
	Sub-indicator 2.2: Would it be possible to inform how many people have already benefited from planned relocation in order to prevent and/or reduce the risk of disasters?
	Indicator 3: Do local authorities have the regulatory and financial means to adopt measures that enable the articulation and participation of migrants in disaster risk management at the local level?
	Sub-indicator 3.1: Do legal and policy instruments recognize migrants as relevant actors?
Priority 3	**Indicator 4:** Do national legal and policy instruments related to disaster risk reduction include specific references and measures to reduce disaster displacement risk, respond to disaster displacement and strengthen the resilience of people displaced by disasters?
	Sub-indicator 4.1: Do these instruments include baseline data, targets, indicators and timeframes to monitor progress in implementing measures?
	Indicator 5: Do legal and policy instruments related to human mobility foster the resilience of internally displaced people and host communities? Are there any provisions and related measures in this regard?
Priority 4	**Indicator 6:** Do national legal and policy instruments related to disaster risk reduction have provisions on disaster-related human displacement preparedness and response (i.e. preventive evacuation, assistance measures during displacement cycle)?
	Sub-indicator 6.1: Do national and/or local disaster preparedness, response and recovery plans integrate measures to address human displacement?
	Sub-indicator 6.2: Do national and/or local disaster preparedness, response and recovery plans stipulate preparedness, response and recovery exercises and/or trainings, including evacuation simulation?
	Sub-indicator 6.3: Do national and/or local disaster preparedness, response and recovery plans address displace people's needs, such as shelter and related assistance?

Source: Developed by the Authors (2022)

Table 11 Principles of the Human Security Approach	
People-centred	- Inclusive and participatory; - Considers/engages/ensures the participation of individuals and communities under stress in defining their needs, vulnerabilities and capacities in responding to their insecurities; - Collectively determines which insecurities to address, and identifies priorities and available resources, including local assets and indigenous coping mechanisms; and - Manages expectations and strengthens social harmony.
Comprehensive	- Comprehensive analysis of root causes and manifestations of particular threats across different components of human security; - Develops multisectoral/multi-stakeholder responses by promoting dialogue among key actors from different sectors/fields/communities/groups (includes actors and sectors not previously considered relevant to the success of a policy, programme or project); - Helps to ensure coherence and coordination across traditionally separate sectors and fields thereby strengthening resilience; and - Assesses positive and negative externalities of each response on the overall human security situation of the affected community(ies).
Context-specific	- Requires in-depth analysis of the targeted situation; - Focuses on a core set of freedoms and rights under threat in a given situation; - Enables the development of more appropriate solutions that are embedded in local realities, capacities and coping mechanisms; and - Considers local, national, regional and global dimensions and their impact on the targeted situation.
Prevention-oriented	- Identifies risks, threats and hazards, and addresses their root causes; and - Focuses on preventative responses that are proactive and not reactive.

Source: UNGA (2012)

Type of insecurity	Root causes	Impact on vulnerable groups and communities	Indicators (Associated needs)
Economic	Poverty; Unemployment; Lack of access to credit and/or other economic opportunities; Decreased aggregate productivity.	Increased poverty; Growing unemployment rates; loss/disruption of livelihoods; Increased (forced) population movements in search of better economic conditions / Immobility due to lack of financial capital/ Protracted displacement.	**Indicator 1:** Need to address the growing number of people living in poverty and unemployment rates; **Sub-indicator 1.1:** Need for livelihood options and income diversification; **Sub-indicator 1.2:** Need to protect existing livelihood system; **Indicator 2:** Need to access/provide education/ skills training and development (TVET/Green Skills); **Indicator 3:** Need to address rising population movements (i.e. rural-urban migration)/displacement.
Food	Hunger and/or famine; Loss of livelihoods and/or livestock; Rise in food price.	(Acute) food insecurity, accompanied by growing hunger and malnutrition; Food price hikes and increased household expenditure on food; Increased population movements in search of food/productive lands.	**Indicator 1:** Need to improve food assistance and nutrient supply to people in need (food buffers); **Indicator 2:** Need to develop climate-smart agricultural practices (climate adaptation); **Indicator 3:** Need to enhance capacities towards alternative agricultural production (e.g. sheltered farming) in line with climate change; **Indicator 4:** Need to address protracted displacement and rising (forced) population movements (i.e. rural-urban, seasonal and/or circular migration/return migration).
Health	Climate/environmental change; Rise in infectious diseases (epidemics); Malnutrition; Poor sanitation; Lack of access to basic healthcare (availability, accessibility & quality).	Increased spread of infectious diseases; Growing malnutrition as a result of loss of food insecurity or poor diet or lack of access; Limited mobility of people in the event of pandemics; Precarious health assistance in situations of disasters; Poor diets and food safety.	**Indicator 1:** Need to improve access to basic healthcare; **Indicator 2:** Strengthen population health status overall; Provision of water, good sanitation **Indicator 3:** Address vulnerability to infectious diseases (vaccination, preventive healthcare); **Indicator 4:** Develop strategies to cope with immobility in the event of pandemics; **Indicator 5:** Need to provide health assistance in situations of disasters.
Environmental	Environmental degradation; Climate change resulting in both sudden- and slow-onset events.	Loss of livelihood and/or livestock; Emergence of conflicts over land and other natural resources; Migration as an adaptation strategy; Human displacement in case of climate and/or environmental disasters; Planned relocation to safer areas; 'Trapped' populations.	**Indicator 1:** Need for climate change adaptation strategies; **Indicator 2:** Encourage ecosystem-based approaches; **Indicator 3:** Need for early warning mechanisms to identify disasters; **Indicator 4:** Need for risk assessment reports; **Indicator 5:** Develop strategies and plans to tackle the (im)mobility dimension of climate and/or other environmental changes.
Personal	Physical violence in its all forms; Human trafficking; Child labour.	Injuries and killings of community members, migrants or displaced persons due to situations of violence; Rising tensions & conflicts; Combined with the adverse effects of climate and other environmental changes, personal insecurity leads to (forced) population movements.	**Indicator 1:** Need to improve or provide security or law enforcement systems; **Indicator 2:** Need to improve local governance & leadership; **Indicator 3:** Need to address special needs relating to vulnerable groups, such as children, women, migrants.

Table 12 Environmental Migration and Disaster Displacement from the Human Security Approach

Community	Inter-ethnic, religious and other identity-based tensions due to competition for scarce resources; Crime; Unemployment Breakdown of traditional and/or community level governance structure; Loss of culture social and capital; Poor environmental and resource management; Lack of participation; Frustration and general discontent; Extremism.	Increased inter-ethnic conflicts and intercommunal distrust; Weakened traditional management for the prevention and resolution of conflicts further exacerbating tensions; Environmental degradation; Loss of social cohesion; Combined with the adverse effects of climate and other environmental changes, personal insecurity leads to (forced) population movements.	**Indicator 1:** Need to enhance peacebuilding efforts; **Indicator 2:** Enhance participation in community development, **Sub-indicator 2.1:** Sustainable(re)integration; **Indicator 3:** Need to promote disarmament programmes; **Indicator 4:** Need to promote rule of law; **Indicator 5:** Need to improve local governance & leadership; **Sub-indicator 5.1:** Inclusive community-based climate adaptation and development programmes.
Political	Political repression/lack of participation; Human rights violations; State fragility; Lack of rule of law and justice.	Political persecution; Violation of basic human rights; Lack of information and participation in decision-making processes; Combined with the adverse effects of climate and other environmental changes, personal insecurity leads to (forced) population movements.	**Indicator 1:** Need to enhance peacebuilding efforts; **Indicator 2:** Need to improve the rule of law; **Indicator 3:** Need to improve (local)governance & leadership.

Source: Developed by the Authors (2022)

Annex 2 Existing Assessment Tools

Table 15 Existing Assessment Tools Addressing Environmental Migration and Disaster Displacement						
Name	**Organisation(s)**	**Publication**	**Overview**	**Human mobility dimension**	**Methodology & Set of indicators**	**Reference**
Implementing Global Policies on Environmental Migration and Disaster Displacement in West Africa	International Organization for Migration (IOM); Platform on Disaster Displacement (PDD), Economic Community of West African States (ECOWAS), United Nations High Commissioner for Refugees (UNHCR).	*Ongoing project*	The objective of this project is to support states in West Africa in their efforts to minimise displacement and facilitate regular migration pathways in the context of disasters, climate change and environmental degradation. The project promotes policy development and seeks to foster coherence among policies related to environmental migration and disaster displacement in West Africa. The project is focused on four pillars, in line with its global and regional priorities: (i) To strengthen the evidence base on environmental migration and disaster displacement in West Africa to support policy development and knowledge sharing; (ii) To support regional exchange on environmental migration and disaster displacement among states in West Africa, and to encourage the coherent implementation of relevant global policies at the regional and national levels; (iii) To inform policy on averting and minimising irregular migration and displacement in the context of disasters and climate change via community and nature-based initiatives; and (iv) To raise awareness on the interplay between migration, displacement, planned relocation, disasters, climate change and environmental degradation in West Africa and to promote solutions to address it.	Human mobility (migration, displacement, planned relocation)	A set of four core aggregated questions were established: (i) To what extent are considerations related to human mobility, Disaster Risk Reduction (DRR) and climate change adaptation integrated in relevant governance instruments (legislation, regulations and public policies and strategies)? (ii) To what extent do managerial and technical staff have the knowledge, skills and capacity to integrate and address different forms, drivers and potential consequences of human mobility in the development and implementation of disaster risk management and climate change adaptation procedures, plans and programmes? (iii) To what extent are financial instruments and services available and accessible to develop and implement DRR and climate adaptation activities that address risk and needs related to human mobility in the context of disasters and climate change? (iv) To what extent do databases, information management systems and observatories for data collection, analysis and information allow for the integration of data on human mobility in DRR and climate adaptation efforts? (v) To what extent are material (non-financial) resources, technologies, (IT-) equipment available to support the effective inclusion of human mobility in DRR and climate adaptation planning and implementation?	Available at: https://environmentalmigration.iom.int/implementing-global-policies-environmental-migration-and-disaster-displacement-west-africa

Implementing the Commitments Related to Addressing Human Mobility in the Context of Disasters, Climate Change and Environmental Degradation - A Baseline Analysis Report Under the Global Compact for Safe, Orderly and Regular Migration	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), International Organization for Migration (IOM), Norwegian Refugee Council (NRC)	2022	To support an effective implementation process of the Global Compact for Safe, Orderly and Regular Migration (CGM), this report reviews existing policies and legal instruments on regional and national level governing migration in the context of disasters, climate change and environmental degradation. By identifying and analysing implementation gaps as well as effective practices of governments, this analysis shall serve as a baseline to facilitate and assess future implementations. This report is based on a review of policy and legal instruments and practices involving two stages: 1) the compilation of a global database of active, draft and past national and regional policy and legal instruments from available secondary literature; and 2) a more detailed review of instruments in 21 selected countries in relation to a selection of indicators developed as part of the Analytical Framework.	Human mobility (migration, displacement, planned relocation)	In order to guide the baseline mapping of the implementation of GCM commitments related to addressing human mobility in disaster and climate change contexts, an Analytical framework and methodology were developed. The GCM includes several objectives and paragraphs ("actions") addressing human mobility challenges in the context of environmental drivers. **This analysis focuses on 12 concrete actions under four Objectives of the GCM (Objectives 2, 5, 21 and 23) identified as most relevant based on their explicit focus on, or implicit relevance to, human mobility challenges associated with disasters, climate change and environmental degradation.** As part of the development of the Analytical Framework to guide the mapping exercise, each of the 12 actions was analysed in relation to key existing international legal obligations and standards and to possible local, national and regional-level measures. At least one indicator was proposed for each action to help to review national and regional efforts to support its implementation: overall, a total of 25 national and regional level indicators were developed across the 12 actions.	Mokhnacheva, D. (2022). Baseline Mapping of the Implementation of Commitments related to Addressing Human Mobility Challenges in the Context of Disasters, Climate Change and Environmental Degradation under the Global Compact for Safe, Orderly and Regular Migration (GCM). Geneva, Platform on Disaster Displacement.
Addressing Disaster Displacement in Disaster Risk Reduction Policy and Practice: A checklist	Norwegian Refugee Council (NRC), Platform for Disaster Displacement (PDD), United Nations Office for Disaster Risk Reduction (UNDRR)	2020	It is a companion tool to the Words into Action Guideline, entitled *Disaster Displacement: How to Reduce Risk, Address Impacts and Strengthen Resilience*, published by the United Nations Office for Disaster Risk Reduction (UNDRR). In short, the checklist provides a list of elements to be considered in assessing national policies, strategies and practices aligned with the Sendai Framework's guidance on disaster displacement, identifying a number of possible actions to be taken at national and local levels.	Displacement	The checklist is composed of six sections: (i) Understand Displacement: Map previous displacement and identify at-risk populations; engage vulnerable and marginalized groups in assessing displacement risk; include displacement projections in disaster risk assessment. **(Do disaster risk assessments include information on past, present and future displacement risk?)** (ii) Strengthen Governance: Establish mandates, allocate resources and ensure capacity to address displacement through legal measures; identify displacement focal points; target resilience-building programmes to areas of high displacement risk. **(Are national and local mechanisms or forums in place to coordinate preparedness measures for disaster displacement? Are national and local mechanisms or forums in place to address disaster displacement? Are efforts to reduce disaster displacement risk embedded in disaster risk reduction programmes and activities?)** (iii) Prepare: Identify land and plan service provision for temporary and protracted displacement; prepare people at risk for displacement including evacuation; consider	Norwegian Refugee Council (NRC) (2020). Addressing Disaster Displacement in Disaster Risk Reduction Policy and Practice: A Checklist. Available at: https://www.undrr.org/sites/default/files/2021-02/WiA_Displacement_Checklist_En_0.pdf

					extended displacement in contingency plans; coordinate protection of displaced people's land, housing, property and productive assets. **(Have actions been taken to strengthen risk knowledge, early warning systems, and evacuations? Are displacement preparedness and contingency plans developed and operational? Do preparedness procedures establish inclusive measures and social safety-net mechanisms to meet the long-term needs of displaced people?)** (iv) Respond: Ensure that evacuations protect human rights including safety from gender-based violence and trafficking; identify displaced people and address their needs; consult with and inform displaced people and host communities. **(Is the necessary information available to support displaced people during disaster response? Does the disaster response address the specific needs of displaced people?)** (v) Support Resilience of Displaced and Host Populations: As quickly as possible: ensure access to basic services; facilitate the issuance of replacement documents; monitor and address needs over time; support integration into local labour market; support return to school; ensure host community also has access to assistance. **(Are support mechanisms in place to build the resilience of displaced and host populations?)** (vi) Find Durable Solutions: Consult displaced people and host communities to develop a durable solutions strategy; ensure budget allocations across sectors and over time; include displaced people's needs in reconstruction and recovery plans; continually assess whether displaced people have found solutions; assess risk of future displacement. **(Is the necessary information available to support disaster displaced people's ability to find a durable solution? Do cross-sector coordination mechanisms for recovery, rehabilitation and reconstruction help displaced people find durable solutions?)**	
WORDS INTO ACTION - Disaster Displacement: How to Reduce Risk, Address Impacts and	Norwegian Refugee Council (NRC), Platform for Disaster Displacement (PDD), United Nations Office for Disaster Risk Reduction (UNDRR)	2019	This Words into Action guide offers practical guidance to help Government authorities integrate disaster displacement and other related forms of human mobility into regional, national, sub-national and local DRR strategies in accordance with Target (E) of the Sendai Framework, to revise or develop DRR strategies by 2020. It provides	Displacement	The guide has three parts. The first discusses the purpose of the project, explains why disaster displacement is a global DRR challenge and provides an overview of how the Sendai Framework addresses disaster displacement. The second part begins with guiding principles to frame activities under the framework's four priorities for action relevant to reducing, preparing for and responding to disaster displacement at all	United Nations Office for Disaster Risk Reduction (UNDRR) (2019). WORDS INTO ACTION - Disaster Displacement: How to Reduce Risk, Address Impacts and Strengthen Resilience. Switzerland: UNDRR. Available at: https://www.undrr.org/publication/words-action-guidelines-disaster-displacement

| **Strengthen Resilience** | | | | basic background information, and highlights the various roles DRR and DRM can play in reducing, preparing for and responding to disaster displacement. The guide is primarily intended to support the work of: (i) Regional, national, sub national and local DRM actors, particularly disaster management agencies, civil defence and emergency responders in addressing disaster displacement risk; (ii) National and regional Governments in ensuring that policies to avoid and manage displacement within and across borders are coherent across all relevant sectors; (iii) National and sub-national law and policymakers, such as parliamentarians, in regulating the inclusion of measures to reduce and manage disaster displacement; and (iv) Local authorities responsible for land-use planning and urban development in reducing vulnerabilities and exposure that may lead to displacement, and in ensuring disaster displacement risk is included in spatial development plans. *Addressing Disaster Displacement in Disaster Risk Reduction Policy and Practice: A Checklist* is a companion tool to the guide. The Checklist provides a list of elements that DRR policy makers and practitioners are invited to consider in addressing whether their policies, strategies, and practices align with the Sendai Framework's guidance on disaster displacement. | | levels. Effective practices are illustrated with examples and case studies. The third part is an annex that provides specific references to disaster displacement and human mobility in the Sendai Framework, a list of key resources, a glossary, cross-references to other Words into Action guides and an overview of how disaster displacement is relevant to various global policies and processes. Regarding the guiding principles to frame activities under the framework's four priorities for DRR actions: **(i) ADDRESSING PRIORITY 01:** Understanding disaster displacement risk; Assessing disaster displacement risk; Data collection and analysis on displacement during response; and data collection and analysis on displacement during recovery. **(ii) ADDRESSING PRIORITY 02:** Strengthening disaster risk governance to manage disaster displacement risk; Disaster displacement in laws, regulations and public policies; Disaster displacement in DRR laws, policies, strategies and plans; Disaster displacement in national and local DRR coordination forums; and public policies on preventing human settlements in areas prone to disaster risk. **(iii) ADDRESSING PRIORITY 03:** Investing in disaster risk reduction for resilience to reduce displacement risk; Including disaster displacement risks in DRR strategies and plans; and inclusive policies and social safety nets to achieve durable solutions. **(iv) ADDRESSING PRIORITY 04:** Enhancing disaster preparedness for effective response to disaster displacement and to 'build back better' in recovery, rehabilitation and reconstruction to achieve durable solutions; Strengthening risk knowledge, early warning systems and evacuation plans; Addressing displacement in preparedness, contingency and response plans; and addressing displacement in recovery, rehabilitation and reconstruction plans.

(See companion tool to the guide, entitled Addressing Disaster Displacement in Disaster Risk Reduction Policy and Practice: A Checklist) | |

A TOOLBOX: Planning Relocations to Protect People from Disasters and Environmental Changes	Georgetown University, International Organization for Migration (IOM), and United Nations High Commissioner for Refugees (UNHCR)	2017	The Toolbox is intended to complement the *Guidance for Protecting People from Disasters and Environmental Change through Planned Relocations*, which was developed by UNHCR, the Brookings Institution and Georgetown University through a series of meetings between 2011 and 2015. In short, it seeks 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.	Planned Relocation	The toolbox is composed of three key stages of planned relocation: (i) Making the decision that a planned relocation is needed (deciding to relocate a group or community); (ii) Preparing and developing a plan for planned relocation (pre-move planning); (iii) Implementation of the plan: pending physical relocation; during and following physical relocation; and longer-term following physical relocation. **A set of indicators were proposed for each of the three key stages: (i) indicators related to the decision that the risk of remaining in an area is unacceptably high; consideration of alternatives to planned relocation; remaining in place; reducing the risks of disasters in situ; other mobility-related adaptation measures; feasibility of planned relocation. (ii) Indicators related to the institutional framework; general content to include in the plan; participation of relocated persons and other affected persons; provision of services; education; water and sanitation services; health; housing; livelihoods; timeframes, monitoring and evaluation; securing necessary financing for planned relocation. (iii) Indicators related to pending physical relocation; during and following physical relocation; and longer-term following physical relocation.** The toolbox also presents five cross-cutting elements that are interconnected and are relevant to all planned relocation processes: (i) establishing and complying with an appropriate legal framework; (ii) understanding and addressing the needs and impacts of Planned Relocations on affected populations; (iii) providing information to, undertaking consultation with, and ensuring the participation of, affected populations; (iv) understanding and addressing complexities related to land issues; and (v) undertaking monitoring and evaluation, and ensuring accountability. **A set of indicators were proposed for each of the five cross-cutting elements: (i) indicators related to legal issues of particular relevance to deciding on planned relocation; legal issues of particular relevance to institutional responsibilities; legal issues of particular relevance to the planning process. (ii) indicators related to relocated persons and other affected persons; with respect to structures and infrastructure in the place of origin; with respect to host populations; with respect to persons who choose not to take part in planned**	Georgetown University (2017). A TOOLBOX: Planning Relocations to Protect People from Disasters and Environmental Changes. International Organization for Migration (IOM) & United Nations High Commissioner for Refugees (UNHCR). Available at: https://www.refworld.org/pdfid/596f15774.pdf

					relocation as well as other remaining populations; with respect to persons who live in close proximity. (iii) indicators related to the dissemination of information; consultation and participation. (iv) indicators related to acquiring land; land and relocation site(s); and vacated land. (v) indicators related to monitoring, evaluating and accountability of the process of planned relocation, as well as the outcomes of planned relocation.	
Guidelines to Protect Migrants in Countries Experiencing Conflict or Natural Disasters	Migrants in Countries in Crisis (MICIC) Initiative	2016	Launched in May 2014 at the Global Forum on Migration and Development (GFMD) in Stockholm, following a call for action during the 2013 UN General Assembly High-level Dialogue on International Migration and Development, the MICIC Initiative is a government led process co-chaired by the United States and the Philippines. It seeks to improve the ability of States, the private sector, international organisations, and civil society to prepare for and respond to the needs of migrants in countries experiencing conflicts or natural disasters, including by protecting their rights and dignity and by alleviating suffering. These non-binding and voluntary *Principles, Guidelines, and Practices* reflect the principle that States bear primary responsibility for protecting migrants in countries experiencing conflicts or natural disasters. States experiencing conflicts or natural disasters have responsibilities towards those present in their territory, including migrants, regardless of their immigration status. Moreover, they aim to strengthen local, national, regional, and international action to better protect migrants in countries experiencing conflicts or natural disasters.	Migration	These *Principles, Guidelines, and Practices* apply to situations in which migrants are present in a country experiencing a conflict or natural disaster. They relate to crisis preparedness, emergency response, and post-crisis action. Importantly, the Guidelines are targeted suggestions, organised by theme, that identify in broad terms the actions needed to better protect migrants. Stakeholders can use the Guidelines to inform and shape crisis preparedness, emergency response, and post-crisis action. **Guidelines related to crisis preparedness:** (i) Track information on conflicts and natural disasters, and the potential impact on migrants; (ii) Collect and share information on migrants, subject to privacy, confidentiality, and the security and safety of migrants; (iii) Empower migrants to help themselves, their families, and communities during and in the aftermath of crises; (iv) Incorporate migrants in prevention, preparedness, and emergency response systems; (v) Involve migrants in contingency planning and integrate their needs and capacities; (vi) Communicate effectively with migrants; (vii) Establish coordination agreements in advance to leverage strengths and foster trust; (viii) Build capacity and learn lessons for emergency response and post-crisis action. **Guidelines related to emergency response:** (ix) Communicate widely, effectively, and often with migrants on evolving crises and how to access help; (x) Facilitate migrants' ability to move to safety; (xi) Provide humanitarian assistance to migrants without discrimination; (xii) Establish clear referral procedures among stakeholders; (xiii) Relocate and evacuate migrants when needed. **Guidelines related to post-crisis action:** (xiv) Address migrants' immediate needs and support migrants to rebuild lives; (xv) Support migrants' host communities.	Migrants in Countries in Crisis (MICIC) Initiative. (2016). Guidelines to Protect Migrants in Countries Experiencing Conflict or Natural Disasters. Available at: https://reliefweb.int/report/world/guidelines-protect-migrants-countries-experiencing-conflict-or-natural-disaster

The Migration Governance Indicators (MGI)	International Organization for Migration (IOM)	2015	In 2015, IOM developed a Migration Governance Framework (MiGOF) to help define what "well-managed migration policy" might look like at the national level. The MiGOF was welcomed by IOM's Member States the same year. The Migration Governance Indicators (MGI) were developed to assess national frameworks, and help to operationalize the MiGOF. The MGI is a tool based on policy inputs, which offers insights on policy levers that countries can use to develop their migration governance. The MGI is not meant to rank countries on the design or implementation of migration policies, but rather to be a framework to help countries in the assessment of the comprehensiveness of their migration policies, as well as to identify gaps and areas that could be strengthened. The MGI aims to advance conversations on migration governance by clarifying what "well-governed migration" might look like in the context of SDG Target 10.7.	Migration	The six dimensions of migration governance included in the MiGOF and MGI are: **(i) Migrants' Rights:** Indicators in this domain assess the extent to which migrants have the same status as citizens in terms of access to basic social services such as health, education, and social security. It also describes the rights of migrants to family reunification, to work, and to residency and citizenship. The ratification of the main international conventions is also included within this domain. **(ii) Whole of Government Approach:** Indicators in this domain assess countries' institutional, legal, and regulatory frameworks related to migration policies. Domain 2 also reviews the existence of national migration strategies that are in-line with development, as well as institutional transparency and coherence in relation to migration management. This domain also investigates the extent to which governments collect and use migration data. **(iii) Partnerships:** This domain focuses on countries' efforts to cooperate on migration-related issues with other states and with relevant non-governmental actors, including civil society organisations and the private sector. Cooperation can lead to improvements in governance by aligning and raising standards, increasing dialogue and providing structures to overcome challenges. **(iv) Well-Being of Migrants:** This domain includes indicators on countries' policies for managing the socioeconomic well-being of migrants, through aspects such as the recognition of migrants' educational and professional qualifications, provisions regulating student migration and the existence of bilateral labour agreements between countries. Indicators equally focus on policies and strategies related to diaspora engagement and migrant remittances. **(v) Mobility Dimensions of Crises:** This domain studies the type and level of preparedness of countries when they are faced with mobility dimensions of crises, linked to either disasters, the environment and/or conflict. The questions are used to identify the processes in place for nationals and non-nationals both during and after disasters, including whether humanitarian assistance is equally available to migrants as it is to citizens. **(vi) Safe, Orderly and Dignified Migration:** This domain analyses countries' approach to migration management in terms of border control and enforcement policies, admission criteria for migrants, preparedness and resilience in the	Available at: https://gmdac.iom.int/migration-governance-indicators

					case of significant and unexpected migration flows, as well as the fight against trafficking in human beings and smuggling of migrants. It also assesses efforts and incentives to help integrate returning citizens.	

Source: Developed by the Authors (2022)