LEAVING PLACE, RESTORING HOME II

A REVIEW OF FRENCH, SPANISH AND PORTUGUESE LITERATURE ON PLANNED RELOCATION IN THE CONTEXT OF HAZARDS, DISASTERS, AND CLIMATE CHANGE

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October 2021
This report was commissioned by the International Organization for Migration with the generous support of the Government of the French Republic and prepared by Daria Mokhnacheva

PLATFORM ON DISASTER DISPLACEMENT
FOLLOW-UP TO THE NANSEN INITIATIVE

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This report is part of a complementary set of studies aiming at enhancing evidence on planned relocation. This includes a study commissioned by the PDD and the Andrew & Renata Kaldor Centre for International Refugee Law at UNSW Sydney identifying planned relocation cases referenced in English language literature (2021), a Pacific regional snapshot, an Asia regional snapshot and a case study compilation commissioned by Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) on behalf of the German Federal Ministry for Economic Cooperation and Development (BMZ) (forthcoming), and a report on sea-level rise and planned relocation developed for the Kaldor Centre (forthcoming).

Sirajganj, community affected by river erosion. Many people were displaced several times due to the river erosion. © IOM 2016/AMANDA NERO

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LIST OF ACRONYMS

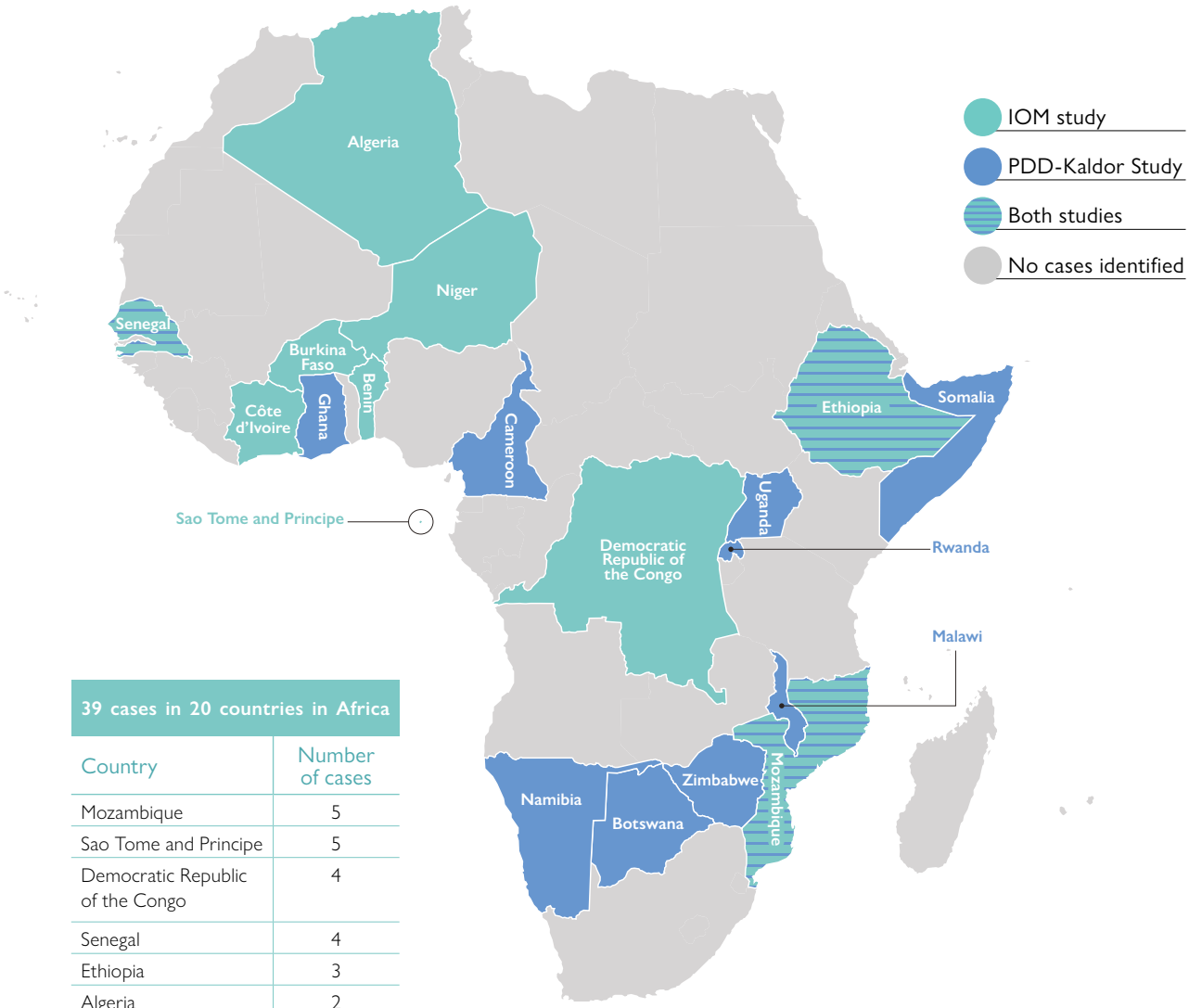
AAUN	Africa-Australia Universities Network
CCA	Climate change adaptation
DRR	Disaster risk reduction
FLACSO	Facultad Latinoamericana de Ciencias Sociales (Latin American Social Sciences Institute)
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (German Corporation for International Cooperation)
IFC	International Finance Corporation
IGAD	Intergovernmental Authority on Development
IGO	Intergovernmental organization
INGO	International non-governmental organization
IOM	International Organization for Migration
MECC	Migration, Environment and Climate Change
NGO	Non-governmental organization
PDD	Platform on Disaster Displacement
PIK	Potsdam-Institut für Klimafolgenforschung (Potsdam Institute for Climate Impact Research)
RESAMA	Red Sudamericana para las Migraciones Ambientales (South American Network for Environmental Migrations)
TFD	Task Force on Displacement
UN	United Nations
UNFCCC	United Nations Framework Convention on Climate Change
UNDRR	United Nations Office for Disaster Risk Reduction
UNHCR	United Nations High Commissioner for Refugees
WIM	Warsaw International Mechanism for Loss and Damage

EXECUTIVE SUMMARY

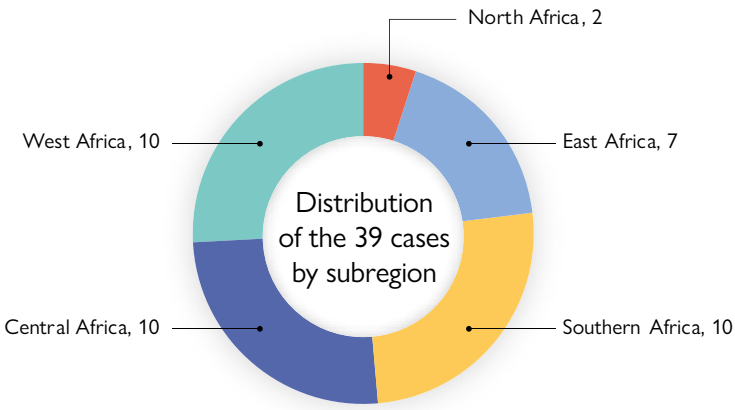
Planned relocation has been recognized as a possible disaster risk reduction and climate change adaptation strategy in several key global policy processes, including the United Nations Framework Convention on Climate Change, the Sendai Framework for Disaster Risk Reduction, the Global Compact for Safe, Orderly and Regular Migration and the Nansen Initiative Agenda for the Protection of Cross-Border Displaced Persons in the Context of Disasters and Climate Change. Yet, planned relocation can have significant socioeconomic, cultural, human security and human rights implications, and is largely considered at the international level as a measure of last resort to turn to once all disaster risk reduction and climate change adaptation options have been exhausted. As policymakers and practitioners seek to implement commitments made at the global level, address risks and adverse impacts associated with hazards, disasters and climate change, and protect affected populations while making them more resilient, their decisions must be informed by robust evidence and an adequate understanding of the complexity and challenges that such practices entail. Despite increased conceptualization efforts and policy guidance developed on this subject over the past few years, many knowledge and data gaps remain, and attempts to consolidate evidence on planned relocation practices globally have so far been limited.

The first study of this series commissioned by PDD and the Andrew & Renata Kaldor Centre for International Refugee Law at the University of New South Wales (Kaldor Centre), *Leaving Place, Restoring Home: Enhancing the Evidence Base on Planned Relocation Cases in the Context of Hazards, Disasters, and Climate Change* (2021), identified over 300 cases of planned relocation initiated after 1970 and documented in English-language academic and grey literature. These cases were compiled in the first global open-access dataset of planned relocation cases, and 34 of these cases were analysed in more detail to better understand their context and design characteristics. The present study sought to complement that effort by reviewing cases of planned relocation documented in French, Spanish and Portuguese-language literature. Applying the methodology for case identification, screening and analysis developed as part of the study commissioned by PDD and the Kaldor Centre, this complementary research effort helped to identify additional 101 past and ongoing cases of planned relocation undertaken *within countries* around the world. In addition, this study analysed in more detail relocation practices in West Africa as a contribution to the IOM project "Implementing Global Policies on Environmental Migration and Disaster Displacement in West Africa" funded by the Government of France in support of the implementation of the 2019–2022 PDD Workplan.

LOCATION OF PLANNED RELOCATION CASES IDENTIFIED IN AFRICA ACROSS THE TWO STUDIES



39 cases in 20 countries in Africa	
Country	Number of cases
Mozambique	5
Sao Tome and Principe	5
Democratic Republic of the Congo	4
Senegal	4
Ethiopia	3
Algeria	2
Malawi	2
Rwanda	2
Benin	1
Botswana	1
Burkina Faso	1
Cabo Verde	1
Cameroon	1
Côte d'Ivoire	1
Ghana	1
Namibia	1
Niger	1
Somalia	1
Uganda	1
Zimbabwe	1



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

Main findings

The review of French, Spanish and Portuguese-language literature helped to improve the geographical balance of the global dataset compiled for PDD and Kaldor Centre study, by revealing a significant number of cases of planned relocation carried out within countries in South and Central America and the Caribbean (73 newly identified cases), and helping to identify additional cases in Africa, most of which were identified in the West and Central Africa subregion (17 cases).

Overall, the analysis of the 101 additional cases identified through this review helped to confirm the preliminary findings presented in the PDD and Kaldor Centre study regarding spatial patterns, associated hazards and temporal dimensions of planned relocation cases globally. In particular, these findings confirmed the prevalence of cases initiated in association with hazards related to the impacts of climate change, the frequency and intensity of which is likely to increase in the future. This includes both sudden-onset hazards, such as floods and storms, and slow-onset processes of environmental degradation, such as coastal erosion and sea-level rise.

Most of the newly identified cases occurred after 2000, with close to half initiated in the past decade. The majority of these cases had been completed at the time of the publication of the source, but a quarter of the cases were still ongoing. This included fifteen cases initiated after 2010, which were still at the very early stages of planning at the time of publication of the primary source. This study also identified and introduced a new category of "suspended" cases, which had been cancelled and where few people, if any, had physically moved.

The additional 101 cases identified globally help to further illustrate the complexity of planned relocation practices shaped by the broader geographic, temporal, social and environmental dynamics in which they occur.

The detailed analysis of a selection of cases identified in West Africa showed that some governments in the region have already resorted to planned relocation in the context of disasters and the adverse effects of climate change. The analysis highlighted the diversity of planned relocation practices in the region and revealed some common challenges and knowledge gaps associated with planned relocation that should be considered to inform possible future policy development and practice, particularly in terms of participatory mechanisms, policy and legal frameworks, access to livelihood opportunities, sustainability of planned relocation, and links to socioeconomic disparities and risks of marginalization. In addition, other forms of relocation and land use practices documented in the region, such as evictions, have additional human security, human rights and legal implications, and may require the development of specific guidelines and legislation, as well as monitoring and accountability mechanisms.

Further local and regional research and monitoring efforts are recommended in order to address some of the knowledge gaps identified in the region in relation to planned relocation and to help identify possible alternative solutions for disaster risk reduction and climate change adaptation, which may be more preferred by the communities, by allowing them to remain safely and for as long as possible in their current places of residence. Such solutions may also be less costly (in both economic and social terms) and more sustainable than planned relocation.

Recommendations for further research

Building on the recommendations formulated in the preceding PDD and Kaldor Centre study, the present report proposes additional areas for further research and analysis based on the preliminary baseline of evidence provided by these two studies. Specific recommendations for a possible research agenda on planned relocation in West Africa are also proposed in order to address some of the issues and knowledge gaps identified for this region from the detailed analysis conducted as part of this study. These recommendations, which can be adapted to other regions too, include to support the monitoring and assessment of ongoing cases and their long-term outcomes, to identify relevant policy frameworks and effective measures, and to promote alternatives to relocation (Box 3 on p. 36).

Further global, regional and national-level research efforts could be undertaken in relation to the following aspects, inter alia, to:

Frameworks and guidance:

- Conduct a more systematic and in-depth review of national policy and legal frameworks applicable to planned relocation;
- Analyse whether and how existing international legal, policy and operational guidance and tools on planned relocation have been considered during the planning and implementation phases, in order to assess their relevance and application, as well as enabling factors and possible limitations, gaps and barriers to their practical application;

Pre-assessment and implementation modalities:

- Identify and review the types of assessments that were conducted before the initiation of the relocation processes identified in this global mapping, and in particular the type of indicators and data used to evaluate the need and feasibility of relocation and to examine alternative solutions;
- Explore participation mechanisms to involve communities as part of planned relocation processes, and whether and how specific considerations linked to gender, age, health, ethnicity, religion or income are taken into account;
- Identify examples and examine the role of non-governmental and other local actors in supporting the process, including to ensure monitoring and evaluation;

Outcomes and effective practices:

- Conduct an analysis of findings from household satisfaction surveys and other assessments of outcomes and socioeconomic impacts undertaken in the existing literature;
- Identify and define criteria and indicators to further assess outcomes of relocation processes and effective practices;
- Gather examples of concrete measures which may have contributed to improving the physical, economic and social well-being of affected communities compared to their situation before the relocation;

Data collection:

- Support field data collection and subsequent monitoring for ongoing cases, with focus on socioeconomic characteristics, long-term mobility patterns, long-term outcomes, and specific design characteristics;
- Ensure early identification of cases under consideration, and of possible opportunities for guidance and assistance, as well as monitoring;
- Support the development of harmonized guidance for qualitative and quantitative research on planned relocation to support further research efforts and help to build a more comprehensive set of comparable global and regional data.

INTRODUCTION

Planned relocation has received considerable attention in key global policy discussions related to human mobility,[1] climate change adaptation (CCA) and disaster risk reduction (DRR) over the past decade (UNFCCC, 2010; UNDRR, 2015; UNGA, 2018a). As many parts of the world become increasingly affected by environmental hazards and the effects of climate change, and with the threat of some areas becoming uninhabitable, governments and communities have considered different options to address and reduce associated risks, including permanent relocation out of areas exposed to or affected by sudden-onset hazards or slow-onset environmental change.

In view of the significant human security and human rights implications that such interventions are likely to carry, there is a broad consensus at the international level that planned relocation should mainly be considered as a measure of last resort when all DRR and CCA options have been exhausted, and that it should be carried out in a manner that respects and protects the rights and dignity of the affected people. Substantial research and guidance have been produced in recent years to understand risks associated with these complex processes and to encourage approaches that minimize negative social, economic, political and human security impacts (Brookings Institution et al., 2015; UNHCR et al., 2017).[2]

This report is part of a complementary set of studies produced by the Platform on Disaster Displacement (PDD), the International Organization for Migration (IOM) and other partners in an effort to enhance evidence on planned relocation in the context of disasters, environmental degradation and the adverse effects of climate change. As the studies of this series suggest, such practices have been used extensively around the world in response to disasters and in anticipation of future risks, and

1 Human mobility in this study refers to migration, displacement and planned relocation, in line with the terminology used in Paragraph 14(f) of the UNFCCC Cancun Climate Change Adaptation Framework (UNFCCC, 2010). See also Advisory Group on Climate Change and Human Mobility, 2014.

2 For an overview of the theoretical, practical and policy background and recent developments around the concept of planned relocation in the context of climate change and disasters, as well as further references on this subject, see Bower and Weerasinghe. (2021). *Leaving Place, Restoring Home: Enhancing the Evidence Base on Planned Relocation Cases in the Context of Hazards, Disasters, and Climate Change*. Platform on Disaster Displacement (PDD) and Andrew & Renata Kaldor Centre for International Refugee Law. See also table 1 in Ferris and Weerasinghe, 2020.

examples of past and ongoing relocation abound. Yet, efforts to monitor and consolidate evidence on cases of planned relocation globally, and therefore to begin to build a more comprehensive basis for further analysis and understanding of the practical implications and outcomes of such policies and practices, have been limited so far.[3]

A study commissioned in 2021 by the PDD and the Andrew & Renata Kaldor Centre for International Refugee Law at the University of New South Wales (UNSW), Sydney, entitled *Leaving Place, Restoring Home: Enhancing the Evidence Base on Planned Relocation Cases in the Context of Hazards, Disasters, and Climate Change* provided the first baseline of evidence on planned relocation cases around the world (Bower and Weerasinghe, 2021). A comprehensive research methodology developed as part of the study allowed to identify and compile a global dataset of over 300 cases of planned relocation documented in English-language scholarly and grey literature. Additionally, a more in-depth analysis was conducted for 34 cases to review their specific context and design characteristics.

The present study, commissioned by the IOM, applies this methodology to identify cases of planned relocation documented in French, Spanish and (to a lesser extent) Portuguese-language literature, with the aim to complement the research conducted in English and start to address the possible geographic bias identified by Bower and Weerasinghe (2021). This work is undertaken as part of the IOM project "Implementing Global Policies on Environmental Migration and Disaster Displacement in West Africa"[4] funded by the Government of the French Republic in support of the implementation of the PDD Strategy and Workplan for 2019-2022.[5] It thus also aims to identify and highlight past and ongoing relocation practices in the West Africa region specifically in order to strengthen the evidence base in the region on this subject and to inform policy development and implementation.

In addition to contributing to the data and evidence pillar of the above-mentioned IOM project and to the PDD Workplan, the research will also support the implementation of the 2019-2021 Plan of Action of the Task Force on Displacement (TFD) under the Warsaw International Mechanism (WIM) on Loss and Damage of the United Nations Framework Convention on Climate Change (UNFCCC), of which IOM is a member. The project is also aligned with other international policy commitments to address the environmental drivers of migration and develop migration management solutions in the context of climate change, environmental degradation and disasters, including those made in the Global Compact for Safe, Orderly and Regular Migration, the Paris Agreement under the UNFCCC, and in the Sendai Framework for Disaster Risk Reduction 2015-2030 together with the Programme of Action for its implementation in Africa.

The present report consists of four main sections. The first section introduces the methodology adopted for this study as well as its limitations. The second section presents the results of the global mapping of planned relocation cases documented in French, Spanish and, to a more limited extent, Portuguese-language literature. A third section explores cases identified in the West Africa region through a more detailed analysis of their characteristics (presented in Annexes A, B and C) and provides additional regional considerations. The final section offers some concluding remarks and recommendations for further research.

The cases presented in the report are listed in the updated global dataset[6] on planned relocation in the context of hazards, disasters and climate change published on IOM's Environmental Migration Portal and on the PDD website, which contains the findings from both studies.

3 See Bower and Weerasinghe, 2021:24.

4 This project is implemented in 2020–2022 in partnership with PDD, the Economic Community of West African States (ECOWAS), and the United Nations High Commissioner for Refugees (UNHCR). For more information, please see: https://environmentalmigration.iom.int/projects/implementing-global-policies-environmental-migration-and-disaster-displacement-west-africa.

5 Available at: https://disasterdisplacement.org/wp-content/uploads/2020/01/31122019-Annex-I-PDD-Workplan-2019-2022-FINAL_compressed.pdf.

6 Available at: https://docs.google.com/spreadsheets/d/1pDR-t1hVApqJiVk6E5DJ7TN0cOtXJiKvS1w8QIP149o/edit#gid=161180010.

1

METHODOLOGY AND LIMITATIONS

This study is complementary to the study commissioned by the PDD and the Kaldor Centre on planned relocation cases in the context of hazards, disasters, and climate change (Bower and Weerasinghe, 2021), and applies the same research methodology to identify, screen and analyse cases of planned relocation documented in French, Spanish, and to a lesser extent, Portuguese-language scholarly and grey literature. The overall research objective of this study was to contribute to building a stronger evidence base of planned relocation cases globally, and to review examples of planned relocation in West Africa in more depth.

The present section summarizes key elements of the methodology, including the definitions and criteria used, as well as the approach for case identification and screening. A more comprehensive background and explanation of terminology and conceptual understanding of planned relocation, along with the detailed description of the methodology used in this research, are provided in Bower and Weerasinghe, 2021.

1.1 APPLICABLE DEFINITIONS AND CRITERIA

a. Conceptualization

This study adopts the conceptualization of planned relocation cases as defined in Bower and Weerasinghe (2021):

> "The planned,[7] permanent movement of a group of people from identifiable origin(s) to identifiable destination(s), predominantly in association with one or more hydrometeorological, geophysical/geological, or environmental hazard(s)."[8]

In the absence of an officially adopted definition at the international level, this description of planned relocation is derived from an analysis of definitions,

7 "Planned" in this context should be understood in the sense of "organized" or "arranged".

8 This report uses the UNDRR definitions of hazards (see Annex F). The study focuses on hydrometeorological, geophysical/geological and environmental hazards, encompassing sudden and slow-onset phenomena. This includes hazards associated with climate change and long-term environmental degradation.

terminology and conceptions of the phenomenon in use by different actors and in different policy processes. The elements of this conceptualization are explained in detail in Bower and Weerasinghe (2021:20–22) and presented in the summary table below (Table 1), which is reproduced from their report.[9]

Only cases including all six elements presented in Table 1 were considered as meeting the criteria for inclusion in the global dataset as part of the present mapping exercise. For example, given the focus of this conceptualization on collective relocation ("groups of people") and identifiable locations, cases involving buy-outs and monetary compensation alone were not included as most of the times they resulted in individual reconstruction, relocation or migration without an identifiable destination site and/or efforts to preserve community ties.[10] Cases of unassisted spontaneous collective abandonment of areas at risk were also excluded as they did not meet the "planned" and/or the "identifiable sites" criteria.[11]

Table 1. Elements for conceptualizing planned relocation

Elements	Case included	Case not included
1. Hazard(s)	Initiated predominantly in association with one or more hydrometeorological, geophysical/geological or environmental **hazard(s)**	Initiated in association with technological or biological hazards, development projects (including dams), conservation initiatives, or conflict
2. People	The **movement of people**	The movement of only dykes, assets or buildings (schools, hospitals, government offices), or movement of animal species for conservation purposes
3. Group	A **community / group of persons**	Individuals or single households
4. Permanent	**Permanent** and long-term movement	Temporary or short-term movement, such as evacuation
5. Planned	Evidence of **initiation**, and **coordination or assistance** from a supporting actor	No evidence of initiation, and coordination or assistance from a supporting actor
6. Identifiable sites	Origin(s) and destination(s) sites are **identifiable**	Origin(s) and destination(s) sites are not identifiable

Source: Bower and Weerasinghe, 2021.

It is important to note, however, that while this conceptualization may seem straightforward, the identification of whether documented cases constituted a case of planned relocation has at times been challenging in practice, and subject to interpretation. Main difficulties were related to insufficiency of information provided, particularly regarding intention, primary motives, locations and movement patterns. This was the issue with several cases taking place in urban contexts following disasters, where a distinction between in situ reconstruction and relocation was difficult to make.[12] Cases where temporary evacuation sites were turned into permanent settlements without

9 Some definitions mention the provision of necessary conditions to rebuild lives and livelihoods as an essential component of planned relocation processes (see Bower and Weerasinghe, 2021:16–17). However, this result-oriented element is not used as a selection criterion for the purpose of this study, which focuses on establishing a preliminary mapping of relocation practices without attempting to assess or judge their outcomes.

10 For example, Sou, (2015).

11 For example, cases in Peru (Zevallos Trigoso, 2015), Togo (Ozer et al., 2017) and the Niger (Mounkaila, 2002).

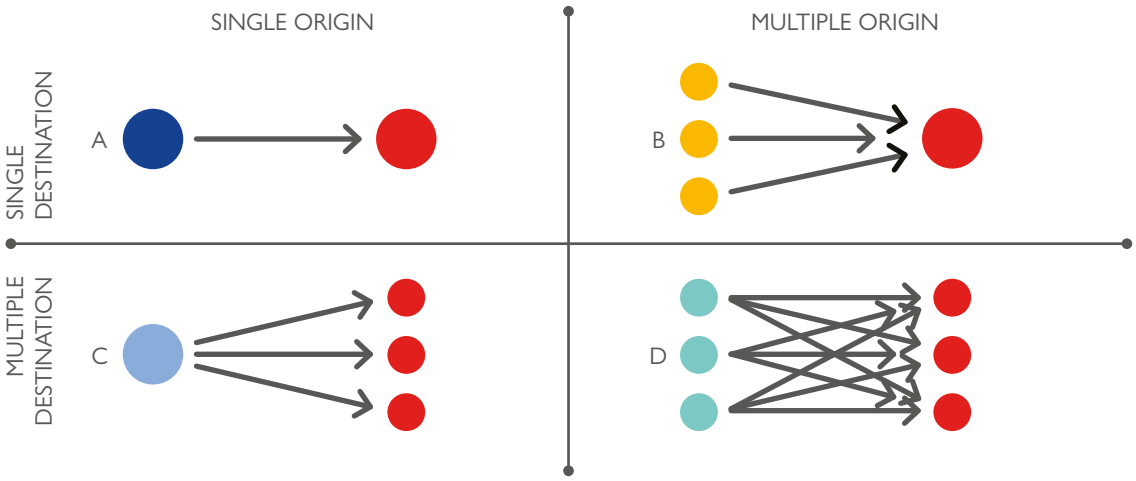
12 For example, the case of Mexico City following the 1985 earthquake was excluded for lack of clarity on movement patterns (Inzulza-Contardo and Díaz Parra, 2016). However, the cases of Constitución and Talca in Chile, which also took place within post-earthquake reconstruction, constituted a clear case of relocation in an urban context (Gatica and Benítez, 2015; Cárdenas Piñero and Fuster Farfan, 2018).

the initial intention to do so, or without assistance from the initiating actors, were not retained.[13] In some cases, people were relocated to already existing social housing, which had not been initially built for the purpose of hosting populations from areas prone to risks or affected by hazards. Most of such cases were not retained as they were more similar to individual buy-out than to planned group relocation.[14] In other cases, where groups of people were assisted to move from areas affected by hazards and risks, but where disaster risk reduction and the protection of people at risk were not the primary purposes of the movement, the cases were not included as the hazard criterion was not directly met.[15]

b. Spatial patterns

In their study, Bower and Weerasinghe (2021) identified for the first time a typology of spatial patterns involved in planned relocation processes. This typology, used in the present study, includes four types of scenarios of movement (A, B, C and D), according to whether they concern single or multiple origin and destination sites, as presented in Figure 1 below. The detailed explanations, limitations and policy-relevant implications of this typology are presented in the above-mentioned report.[16]

Figure 1. Typology of planned relocation spatial patterns



Source: Bower and Weerasinghe, 2021.

13 For example, a case in Egypt following the 1992 earthquake in Cairo was not retained as no sufficient evidence was provided to confirm whether affected populations had received assistance in order to turn the temporary evacuation camps into permanent settlements (Hardy, 2008). Colonia Canadá in Peru was another case, where an evacuation camp set up following a hurricane in 1974 was turned into a permanent settlement – in the absence of sufficient information regarding original intent and assistance to affected populations, this case was not retained (Ferradas, 2015).

14 Two cases identified in France were not retained for those reasons (Moatty and Vinet, 2018; Carré, 2006). However, a case in Cabo Verde (Chouraqui and Texier, 2016) and a case in Guadeloupe (Sarant et al., 2003) were included in the database since the relocation to existing social housing was done collectively.

15 A case of relocation in Cap Haïtien, Haiti undertaken as part of a World Bank disaster risk reduction project was not retained as the primary purpose of the relocation was to allow infrastructure construction works, rather than to reduce exposure of populations to hazards (Government of Haiti, 2021). Another interesting case was found in Madagascar, as part of a government-led programme of "planned migration" which supported relocation of vulnerable communities from the capital to several villages inland to promote local agriculture and provide jobs to these communities (IOM, 2018b). Some of the beneficiaries came from flood-prone areas, but the programme was not initiated to address a hazard or risk and therefore was not included in the database. It does, however, constitute an interesting example of a government-assisted mobility programme that could inform the design of relocation programmes in the context of hazards and risks.

16 For example, the report notes that different operational and implementation modalities and strategies may be required depending on the type of spatial pattern involved; or that the outcomes of a planned relocation process on the relocated people may vary depending on the type of mobility patterns, particularly in terms of social cohesion and community integrity, or of equitable access to services. The report identifies a number of research questions to be explored further in relation to this typology, which could be the subject of future research efforts. See Bower and Weerasinghe (2021:18–19 and 45–47).

For many cases identified in the French, Spanish and Portuguese literature reviewed here, the spatial patterns were unclear due to insufficient information in the corresponding source regarding the site(s) of origin, destination, or regarding movement patterns between locations in cases involving multiple origin and destination sites. For such cases, the spatial pattern is listed as "**unknown**" in the global database. They include, inter alia:

- Cases where origin and/or destination locations are identifiable but not named in the source, or for which the specific geographical location was approximate or unknown;[17]
- Cases where the source covered multiple origin and/or destination sites with no information allowing to clearly identify movement patterns between these sites;[18]
- Cases where the level of administrative designations employed in the source differed for the site of origin and the site of destination and did not allow comparable categorization (for example, relocation from multiple neighbourhoods of a single city to one or several rural sites, or from one or several areas of a neighbourhood in a city to one or several other neighbourhoods);[19]
- Cases with mixed patterns associated with different historical events and/or multiple causes;[20]
- Cases where a source focused on one site of origin or destination, but for which additional sites of origin or destination are likely to have existed, based on information found in other sources;[21]
- Cases where the proportion of relocated households compared to total affected population was unknown and alternative destinations for the remaining affected population were unclear;[22]
- Some of the ongoing cases, for which the selection of the destination site is in progress;[23]
- Suspended cases, for which the relocation was not finalized or did not take place.[24]

The types of situations described above do not represent rigid categories, and some cases included in the database for which the spatial pattern has been marked as "unknown" may fall within several types of situations simultaneously.

17 Benin (Hayes, 1985); Kinshasa, Democratic Republic of the Congo (Gemenne et al., 2013); Senegal (Touré Thiam et al., 2014); Dominican Republic (Del Rosario et al., 2012); Haiti (Louis, 2012); Saint Kitts and Nevis (Sarant et al., 2003); Nueva León and Puebla in Mexico (Lavell et al., 2015); Nicaragua (Hardy, 2008); Gaspé in Canada (Mineo-Kleiner, 2017); Argentina (IOM, 2017); Brazil (IOM, 2017); Chile (Matus Madrid et al., 2016); Ecuador (Salinas et al., 2020); Lambayeque in Peru (Ferradas, 2015); Bogotá and Medellin, Colombia (Robles, 2011, and Rincón Patiño and Correa Cárdenas, 2018).

18 Chiapas, Mexico (Escobar et al., 2006); Sainte-Luce and Sainte-Flavie, Canada (Mineo-Kleiner, 2017).

19 See for example Burkina Faso (Lassailly-Jacob, 2015); Argentina (Fainstein, 2018); Plurinational State of Bolivia (Antelo, 1985); Saint-Louis, Senegal (World Bank, 2020), La Paz, Plurinational State of Bolivia (Hardy and Combaz, 2009). While it is difficult to clarify the typology for such cases, the operational implications for them are likely to be similar to cases with multiple origin and would be worth further research.

20 For example, the case of Cité de l'Espoir in Kinshasa, Democratic Republic of the Congo, which hosted families relocated from flood prone areas in 2007 as well as households relocated for sociopolitical or economic reasons unrelated to hazards (Gemenne et al., 2013).

21 Guadeloupe (Sarant et al., 2003).

22 Grand Lahou, Côte d'Ivoire (Alves et al., 2020); Goma, Democratic Republic of the Congo (Gemenne et al., 2013); Moquegua, Peru (Zevallos Trigoso, 2015); Talca, Chile (Cárdenas Piñero and Fuster Farfan, 2018).

23 For example, Colombia, Nariño Department, several cases (Velasquez Sanchez, 2016); Ecuador, Chimborazo (IOM, 2017); and several cases in Peru (Lavell et al., 2015).

24 The PDD and Kaldor Centre study categorized planned relocation cases according to their status, as either completed or ongoing (see Bower and Weerasinghe, 2021, and footnote 31 below). The present study introduces a new category of "suspended" cases. This category refers to planned relocation processes that were cancelled and where few people, if any, have physically moved. Two such cases were identified as part of this research, namely Addis Ababa in Ethiopia (Tamru, 2002) and Adjaria in Georgia (Galstyan, 2015).

1.2

RESEARCH AND CODING METHODOLOGY[25]

Following the methodology developed in Bower and Weerasinghe (2021), the methodology for this study comprised two phases:

1) Contribution to the preliminary global dataset of planned relocation cases through dentification and screening of cases documented in French, Spanish and Portuguese-language academic and grey literature;[26] and

2) In-depth review of a subset of cases focused on the West Africa region to identify and analyse relocation context and design characteristics, and examine broader context and approaches in the region.

a. Global mapping exercise

The following strategies were employed to identify cases of planned relocation:

- Examination of references cited in relevant papers, bibliographies and publications identified in Bower and Weerasinghe (2021) in particular:
  - An annotated bibliography of planned relocation cases compiled by the Brookings Institution (Petz, 2015), and an updated version compiled by Georgetown University (Benton, 2017);
  - Spanish-language academic and institutional publications that compiled cases of planned relocation in disaster contexts (Correa, 2011; Jubilut et al., 2018);
  - Guidance on Protecting People from Disasters and Environmental Change through Planned Relocation (Brookings et al., 2015) and A Toolbox: Planning Relocations to Protect People from Disasters and Environmental Change (UNHCR et al., 2017); and
  - The Atlas of Environmental Migration (Ionesco et al., 2017).
- Targeted searches using selected French, Spanish and Portuguese search terms in publicly available databases of articles on human mobility related to environment, disasters or climate change:
  - Research Database on IOM's Environmental Migration Portal;[27]
  - University of Neuchâtel's CLIMIG database.[28]
- Boolean search using selected French, Spanish and Portuguese search terms in abstract, title, keywords and full text (where available) in academic databases specialized in French, Spanish and Portuguese-language research and in global databases of academic literature including:
  - CAIRN.info
  - SciELO
  - JSTOR
  - ResearchGate
  - OpenEdition Journals
  - Google Scholar[29]
- Review of World Bank Document Database[30] for resettlement action plans in West Africa;
- In addition, several academic and institutional experts were consulted to identify additional cases and relevant sources and to obtain supplementary information to support the selection and coding of cases, when written documentation was insufficient (see Annex H).

The search terms used to identify relevant literature were based on the English search terms selected in Bower and Weerasinghe (2021): ("Relocation" or "Managed Retreat" or "Resettlement") and ("Disaster" or "Hazard" or "Climate" or "Environment"), and on their most

25 For a more detailed description of the methodology, please see section 4 in Bower and Weerasinghe (2021).

26 As explained in Bower and Weerasinghe (2021): "For the purposes of this report, grey literature means documents produced by governmental, non-governmental, intergovernmental, and other actors for whom publishing may not be the primary function, and that are not necessarily peer-reviewed. Examples of such documents include white papers, technical reports, and government or community led plans."

27 https://environmentalmigration.iom.int/research-database.

28 https://climig.com/. Access to the full database can be obtained through the CLIMIG team.

29 Other databases such as Elsevier ScienceDirect and SpringerOpen were searched, but did not yield any relevant results.

30 https://documents.worldbank.org/en/publication/documents-reports.

common translations in key official international policy and reference documents, presented in detail in Annex G.

Only cases initiated and documented after 1970 were included. Cases that had already been identified by Bower and Weerasinghe through the English language review were excluded. Each potential case identified was screened to ensure that it met the minimum criteria across the six conceptual elements for planned relocation presented in Table 1 above. All cases that satisfied the methodological criteria were added to the global dataset created by Bower and Weerasinghe (2021), along with information regarding their location, spatial patterns, status,[31] associated hazard and relevant identified sources.[32] Characteristics that could not be confirmed due to insufficient information included in the available sources were marked as "unknown".

The main findings from these cases are presented in section II below. The updated global dataset which now includes the 101 additional cases identified as part of this study is available online.[33]

b. Mapping of detailed characteristics and analysis of cases in West Africa

For the second phase, the methodological approach applied differed slightly from the approach for the detailed mapping and analysis of cases in Bower and Weerasinghe (2021). While Bower and Weerasinghe sought to identify specific context and design characteristics for a particular type of cases (single origin to single destination) globally, the present study aimed to strengthen the understanding of practices in countries in the West Africa region, as a contribution to IOM's project "Implementing Global Policies on Environmental Migration and Disaster Displacement in West Africa". Therefore, in the present study, geographic location was prioritized over spatial pattern type when selecting cases for detailed analysis.

A subset of planned relocation cases was thus identified in the West Africa region and selected for a more detailed review and analysis of their context and design characteristics. Cases were selected on the basis of the quality and sufficiency of information provided in the source literature, following criteria outlined in Bower and Weerasinghe (2021).[34] The seven cases that met these quality criteria were then analysed in more detail using the methodology and codebook questions developed by Bower and Weerasinghe and presented in Annex D.[35] The analysis is based on the sources identified as part of this mapping exercise; a comprehensive literature review was not conducted for each case. The findings of the analysis are presented in section III.2 below, and in tables in Annexes A, B and C.

During the screening phase, several sources and cases were identified in West Africa that did not meet the criteria for inclusion in the global dataset or in the detailed analysis of characteristics, but that provided useful insights into the policy context and some trends in the region. To complement the analysis of selected planned relocation cases and to provide a broader overview of practices in West Africa, those additional sources and cases were reviewed and briefly presented in section III.3.[36]

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31 The status of the cases (completed, ongoing or suspended) reflects the status at the time of the publication of the source, and does not reflect its current status as of 2021. See footnote 24 above regarding the newly introduced category of suspended cases.

32 For each identified case, all relevant sources identified in this search are listed in the database. Articles that described several cases are listed as a source for each relevant case.

33 Available at: https://docs.google.com/spreadsheets/d/1pDR-t1hVApqJiVk6E5DJ7TN0cOtXJiKvS1w8QIP149o/edit#gid=1611800107.

34 Given the limited number of cases available in the region, the subset included results both from this literature review (4 cases) and from the English-language literature review conducted by Bower and Weerasinghe (2021) (2 cases). A case from Cameroon, a country located between West and Central Africa, was also included given its geographical relevance and quality of the source.

35 "Context and design characteristics include: whether or not relocation took place after displacement; the distance between origin and destination sites; approximate year(s) the need for relocation was identified and the completion of the physical move for a majority of households; number of households; if the origin community identifies as indigenous; whether the relocation occurred in rural or urban settings; initiating and supporting actor(s); whether assessments were conducted at sites of origin and destination; participation mechanisms; legal and policy frameworks; livelihoods; and challenges" (Bower and Weerasinghe, 2021).

36 The additional analysis of the West African context is based on the identified literature and is not meant to be exhaustive. A desk review of available literature on environmental migration, disaster displacement and planned relocation in West Africa has been conducted by IOM and should be consulted for a more comprehensive overview of mobility dynamics in the context of disasters, climate change and environmental degradation in the West Africa region and related policy frameworks (IOM, 2020a).

It is important to note that this study did not attempt to assess the outcomes of planned relocation cases, but rather aimed to constitute an initial evidence base and determine some key features and characteristics identified in relocation processes.

1.3 LIMITATIONS

This study should be seen as an initial contribution towards building a preliminary evidence base in planned relocation. As such, it should not be considered as a comprehensive review of existing planned relocation cases, but rather as a basis for more advanced research and analysis. As mentioned by Bower and Weerasinghe (2021), these cases do not constitute a representative sample, and caution must be exercised with any comparison and extrapolations at regional or global levels.

Some limitations presented in the PDD report are also relevant here, regarding geographic[37] and research angle bias and types of sources reviewed,[38] which are likely to have affected the results presented in the sections below. The methodology for the detailed analysis, consisting in reviewing only one or two primary sources identified in the screening rather than conducting a comprehensive literature review for each case, has limited the scope of identified information. More in-depth research concerning these cases could help to complement these initial findings and address some of the knowledge gaps identified here.

There are also inherent difficulties to the study of planned relocation, given the multiple forms that the process can take, the complex patterns and factors involved, and the absence of a consensus definition. Each case may be subject to different interpretations and may not fit squarely into the simplified categories and typologies used here. This was particularly salient during the search of cases in French, Spanish and Portuguese languages, where officially agreed terminology on planned relocation is lacking, and varies from one policy process or research field to another. Differences in interpretation and use of terminology made it difficult at times to ascertain whether a case was a case of planned relocation, particularly where information on movement patterns and other parameters was limited. This was the issue with several cases documented in French and Spanish, where the terms used for relocation and rehousing[39] were used interchangeably, and information provided in the primary source was not sufficient to confirm whether the situation corresponded to a case of planned relocation or post-disaster reconstruction and rehousing. In some cases, the issue was resolved by consulting secondary sources (including media sources) or experts; in others, such cases had to be excluded.

Some cases that were not included in the dataset may therefore be considered in the future if more evidence becomes available; conversely, more advanced research and analysis of some of the less well documented cases included here may reveal that they do not constitute a case of planned relocation as defined in this study, and need to be removed from the database.[40] At the same time, other types of relocation and retreat which did not meet the criteria used in this study may also

37 The review of Portuguese-language literature was less extensive than the review of French and Spanish-language literature due to linguistic constraints. A more focused review of documentation published in Portuguese may help to identify additional cases. Further review of literature published in other languages may also yield additional results and help to ameliorate the geographic balance of the global database.

38 The literature review conducted here showed that planned relocation processes in the context of hazards, disasters and climate change are studied by scholars from a wide range of research fields, including migration studies, sociology, anthropology, geography, urban planning and environmental and disaster risk management. Additional analysis of sources could help to better understand the geography and thematic scope of research on planned relocation so as to identify opportunities and gaps or limitations in research and expertise on this topic.

39 For example, in some articles reviewed in French, the terms "*reloger/relogement*" were used to designate the provision of new housing in situ for populations affected by disasters, while in others they were used to designate relocation. A similar issue was encountered with "*realojar/realojamiento*" in Spanish. A detailed analysis and further research would be required for each such case to determine whether the case corresponds to planned relocation or to rehousing in situ (or individual accommodation solutions). The limited scope of this consultancy did not allow such an in-depth review of each identified source, and more efforts should be pursued to continue identifying cases through a more advanced review of literature and terminology used.

40 The global dataset should be regarded as a live database that will be updated as errors are identified. For example, a more in-depth analysis of a case in Nigeria initially included in the global dataset (Ajibade, 2019) revealed it to be a case of eviction rather than planned relocation (see section III.3 below). This case has therefore been removed from the database. Such changes will be systematically tracked and recorded.

be worth examining in more detail to complement the global evidence base on human mobility in the context of hazards, disasters and climate change.

Finally, as this study did not seek to confirm the current status of the cases and evaluate their outcomes or particular features, these aspects could be explored further as part of subsequent research projects and monitoring efforts. This also applies to "suspended cases", a category that has been newly introduced in this study.[41] Such cases have also been documented in the English-language literature,[42] and with the introduction of this new category into the PDD and Kaldor Centre global database of planned relocation cases, further research to identify and include them should be pursued. Indeed, such cases may offer valuable insights into the reasons behind the suspension of such processes, including possible alternative solutions identified by actors to avoid relocating communities.

41 See footnote 24 above.

42 For example, an English-language source on relocation in Peru provided by an expert contributing to the present study mentioned a case in Lurigancho-Chosica, Lima Province in Peru, where a neighbourhood was declared to be an area of non-mitigable risk requiring the relocation of its inhabitants following flash floods in 2015. Yet, due to the resistance of the population to relocate, the government invested in in situ risk reduction infrastructure instead. Expert assessments are yet to be conducted to assess whether the new infrastructure is sufficient, or whether planned relocation will eventually be required (French and Mechler, 2017).

2

FINDINGS FROM THE GLOBAL DATASET

This section provides an overview of cases of planned relocation identified through the review of French, Spanish and Portuguese-language academic and grey literature. A total of 101 cases meeting the methodological criteria described in the previous section were identified and retained as part of this literature review.

2.1 MAIN FINDINGS

a. Location of the identified cases

The 101 cases of planned relocation identified in this review concern 33 countries and territories.[43] As shown in Figure 2, these cases span all inhabited regions of the world. However, the geographic distribution is significantly different from the cases identified as part of the English-language literature review (Bower and Weerasinghe, 2021), with a clear predominance of cases situated in French, Spanish and Portuguese-speaking countries, reflecting the linguistic focus of this study which reviewed literature published in these three languages. Thus, most cases were found in the Americas (75), predominantly in South and Central America (46 and 20 cases respectively).[44] Twenty-one (21) cases were identified in Africa (including 9 in Central Africa, 8 in West Africa, 2 in North Africa, 1 in East Africa and 1 in Southern Africa), 2 cases in Europe, 2 cases in Asia, and 1 case in the Pacific (French overseas territory).

These findings confirm the expectation expressed by Bower and Weerasinghe (2021) that a review of literature published in French and Spanish may ameliorate the geographic bias associated with a focus on English-language literature acknowledged in their study. Indeed, these new findings significantly change the proportion of cases occurring in the Americas, bringing them to a total of 156 cases across the two datasets, which makes the number

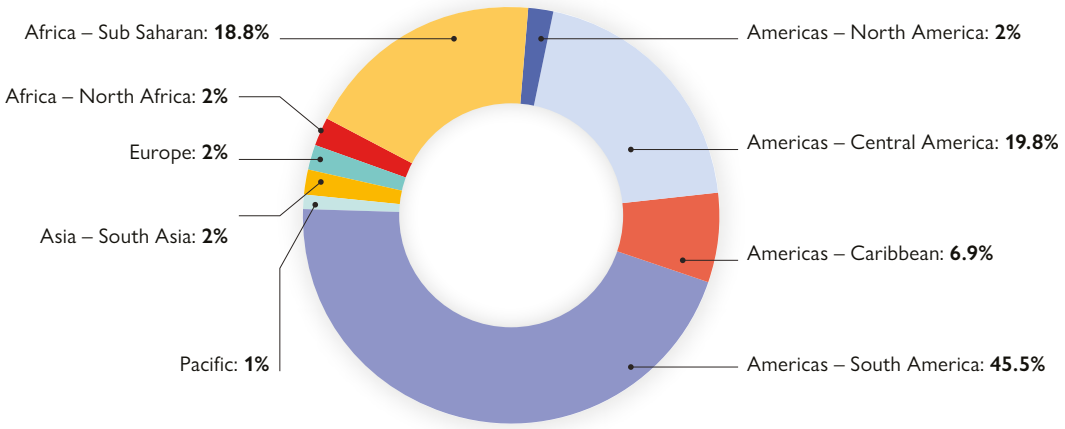
43 Three cases occurred in the French Overseas Territories and Collectivities of Guadeloupe, Martinique (identified as part of the Caribbean subregion) and Wallis and Futuna (identified as part of the Pacific region).

44 The other nine cases in the Americas included seven cases identified in the Caribbean subregion, and two cases in North America.

of cases of planned relocation in the region comparable to that in Asia (with the total number of cases identified for that region updated to 162). Similarly, with the new cases identified in Africa (bringing the region to a total of 39 cases across the two datasets), the number of cases in Africa exceeds the number of cases identified in the Pacific (an updated total of 37 cases). Very few cases were found in Europe: findings from the literature review suggest that buy-outs and other individual approaches (such as individual financial subsidies or provision of existing housing) are a more prevalent measure in this region than planned relocation of groups of persons to new sites.[45] This finding may, however, also reflect methodological limitations of this study, as literature published in other European languages was not reviewed.

It is important to note that these statistics should not be considered as representative of the actual occurrence of planned relocation globally, but only of the literature identified as part of these two studies. As noted by Bower and Weerasinghe (2021), other cases may have been documented in other languages or in other types of literature not considered in this review, and many more undocumented cases are likely to have occurred or to be occurring in different regions of the world which are not reflected in this overview and which would require further research.

Figure 2. Geographic distribution of identified cases, by region[46]



In terms of distribution by country, countries with the highest numbers of cases of planned relocation were all located in South and Central America. Peru (16 cases), Mexico (13 cases) and Colombia (8 cases) had the highest number of documented planned relocation cases in the context of hazards, disasters and climate change identified as part of this research. In Africa, the countries with the highest number of cases were Sao Tome and Principe (5 entries reflecting 7 cases), the Democratic Republic of the Congo (4 cases) and Senegal (3 cases).

These results allow to calibrate slightly the findings regarding the global distribution of countries with highest numbers of planned relocation cases identified in Bower and Weerasinghe (2021), as the figures found for countries in South and Central America are comparable with countries in Asia. This may broaden opportunities for more advanced cross-regional and country-level comparative analysis in the future.

45 Several cases of individual buy-outs or rehousing (for example in existing social housing) were identified in France: a case in Haumont following a tornado in 2008, and a case in Labruguière following riverine floods in 1999 (Moatty and Vinet, 2018; Carré, 2006). They were not retained here as they did not meet the group criterion of the conceptualization of planned relocation in this study.

46 All the figures in this section are based solely on new cases identified from French, Spanish and Portuguese-language literature and do not include cases previously identified in Bower and Weerasinghe (2021).

Figure 3. Geographic distribution of identified cases, by country

Number of cases detected by country

1 2 3 4 5 8 13 16

Source: International Organization for Migration (IOM), 2021.
Note: This map is for illustration purposes only. The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the International Organization for Migration.

b. Spatial patterns identified

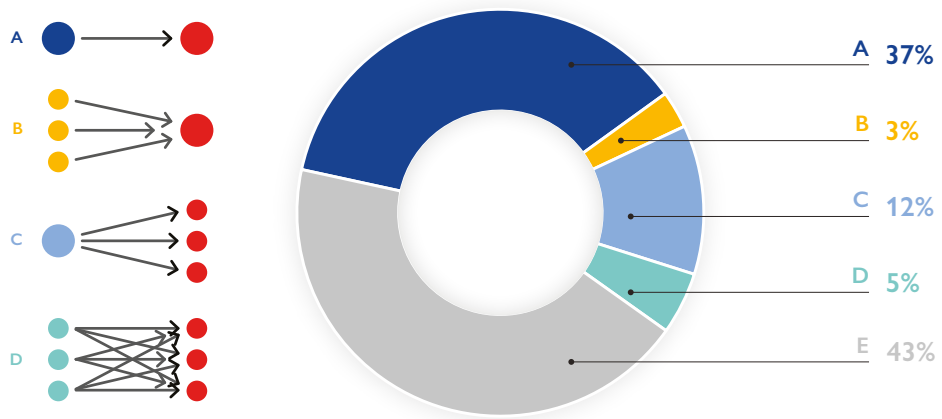
As with the cases identified in the English-language literature review, the most common spatial pattern in the cases found in this study involves a single origin and a single destination site (spatial pattern type A). This applies to at least 37 per cent of the identified cases (or 37 cases). Cases involving multiple destinations and/or origins together accounted for close to 20 per cent (or 20 cases). Compared to the findings from the English-language literature review, cases clearly reflecting pattern C (single origin to multiple destinations, accounting for 12%) were relatively more common than cases with pattern B or D (respectively, multiple origins to single destination – 3%, and multiple origins to multiple destinations – 5%).

It is important to note, however, that these findings need to be calibrated against a significant number of cases for which the exact spatial pattern could not be clearly determined, which represent over 43 per cent of the identified cases (or 44 cases). This was mostly due to insufficient or unclear information provided in the identified literature, as explained in section I.1.b above.

Based on a rapid analysis of available information, it is estimated that about a quarter to a third of these cases marked unknown (representing between 10% and 14% of the total cases identified in this review) may correspond to type A or multiple type A cases,[47] thus confirming the overall prevalence of this spatial pattern type. For example, fishing villages in the Fatick region in Senegal or in Matancita in the Dominican Republic seem to have likely relocated inland as whole communities, but in the absence of clear information, these cases were marked as unknown (Touré Thiam and Crowley, 2014; Del Rosario et al., 2012). Some of the ongoing cases, where the relocation site was being identified at the time of the publication of the source, were also marked as unknown in the absence of definitive information indicating whether people will be relocated to a single site or to several locations, although preliminary plans seem to indicate that these cases would correspond to type A. This is for example the case of six ongoing cases in Peru (Lavell et al., 2015), and at least one case in Ecuador (Santa Lucía de Chuquipogyo in the Chimborazo Province: IOM, 2017). Most of the historical cases marked as unknown, however, relate to cases with multiple origin and/or multiple destination (including relocation from or to different neighborhoods within the same city).

On the whole, the available evidence points to an overall prevalence of cases involving a type A spatial pattern, but the findings regarding the exact spatial typology of cases involving more complex patterns are inconclusive.[48]

Figure 4. Spatial patterns of identified cases



Repartition of the spatial patterns of identified cases (in % of the total number of identified cases)

47 As explained in Bower and Weerasinghe, 2021 (footnote 42): "In some cases, communities/groups of households from multiple origin sites are in parallel supported to move to multiple destination sites; these cases are effectively multiple type A cases but are sometimes documented in the literature as one case given a single hazard trigger or single policy intervention by a supporting actor." For example, the source concerning the case in Benin (Hayes, 1985) identified in the present study indicates that several villages located in a coastal zone affected by coastal erosion "have been moved".

48 On this point, see also Weerasinghe and Bower, 2021.

c. Associated hazard(s)

As explained in Bower and Weerasinghe (2021), many planned relocation cases take place in contexts of multiple hazards. This is the case of situations where hazards occur in an interrelated manner, such as floods following storms (for example, the case of the Xolotlán lake flood in Nicaragua following Hurricane Mitch in 1998 – Hardy, 2008; or of Mozambique following Cyclone Idai in 2019 – Jacobs and Almeida, 2020), landslides and soil erosion associated with floods (several identified cases, including in the Plurinational State of Bolivia, Brazil, Colombia, Costa Rica, and Mexico), or tsunamis that may accompany earthquakes near coastal areas (the case of Maldives following the 2004 Indian Ocean Tsunami – Magnan and Duvat, 2014; or Chile following the 2010 earthquake and tsunami – Contreras Gatica and Arriagada Sickinger, 2016; Cárdenas Piñero and Fuster Farfan, 2018). In other cases, human settlements may be located in areas exposed to multiple unrelated hazards, which is for example the case of communities in Wallis and Futuna exposed simultaneously to sea-level rise, storms and earthquakes (Jost, 2006) or the case of Haiti, facing both earthquakes and storms (Louis, 2012).

For the purposes of this study, only one primary hazard was recorded in the database for each case, based on what was identified as the dominant trigger behind the decision to relocate.[49] The main hazards associated with the identified cases were floods (41%),[50] landslides (19%), and storms (13%). Earthquakes and volcanic eruptions were identified as the primary hazard in eight and seven per cent of the cases, respectively.

Hydrometeorological hazards thus accounted for 69 per cent of all cases (70 cases), while geophysical hazards (including earthquakes, volcanic eruptions, landslides[51] and mudflows, and tsunamis) were the primary trigger in 26 per cent of cases (26 cases). The remaining five per cent of cases were associated with other environmental hazards (coastal erosion). These findings are relatively consistent with the findings based on the English-language literature review (Bower and Weerasinghe, 2021).

Overall, about 66 per cent of all cases (or 67 cases) identified in this research were associated with sudden-onset hazards, and 5 per cent with slow-onset hazards, that are known to be related to or affected by climate change.[52] Eleven per cent of all cases (11 cases) were associated with sudden and slow-onset phenomena linked to sea-level rise (coastal floods and coastal erosion), the majority of which were in West and Central Africa.

d. Temporal dimension and status

This study reviewed literature covering planned relocation cases initiated since 1970. Yet, similarly to the findings in Bower and Weerasinghe (2021) based on the review of English-language literature, most identified planned relocation cases were initiated after 2000.

Around 45 per cent of all identified cases were initiated in the 2010–2020 decade, most of which were in South America (30 cases). Three quarters of the cases identified in North and sub-Saharan Africa also took place after 2000 (16 cases in total), of which 10 cases took place after 2010, many of them undertaken in the framework of climate change adaptation and coastal resilience projects

49 While the focus here is on hazard-related drivers, in many cases, other (socioeconomic political) motivations and factors were at play. For example, relocation taking place in urban contexts was in several cases combined with gentrification programmes, as was the case of Constitución and Talca in Chile (Gatica and Benitez, 2015; Cárdenas Piñero and Fuster Farfan, 2018), cases in Argentina (IOM, 2017; Fainstein, 2018; Aversa et al., 2020), Cuiabá in Brazil (Dias, 2012), Addis Ababa in Ethiopia (Tamru, 2002), and several cases in West Africa (see section III below). In other cases, affected communities were residing in ecological conservation zones, which the government planned to evacuate (Mexico – Aguilar and de Lourdes Sánchez, 1994; Brazil – Gini et al. 2020). For an additional discussion on multicausality and motivations in planned relocation, see Bower and Weerasinghe (2021:42–43).

50 Including storm-related floods, riverine floods, coastal floods, flash floods and lake floods.

51 UNDRR categorizes landslides as geological/geophysical hazards (see Annex F). However, in the literature reviewed here, landslides were in most cases associated with hydrometeorological hazards (heavy rains and floods). Such cases are included in the figure relating to hydrometeorological hazards. In three other cases (Coalaque and Ubinas districts in Peru, Adjaria in Georgia), landslides were caused by geophysical phenomena linked to seismicity. These cases are reported in the figure for geophysical hazards.

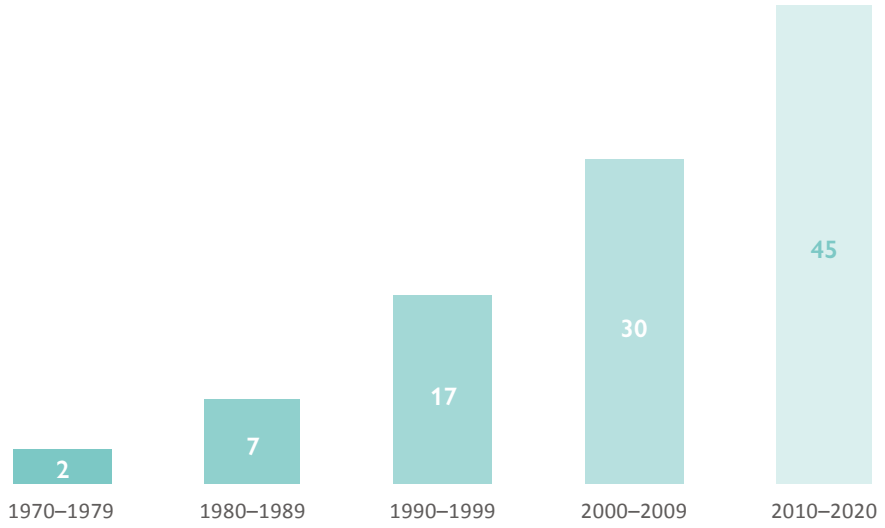
52 The figure for sudden-onset hazards includes 67 cases where floods and storms were identified either as a primary/direct hazard or as an underlying significant hazard influencing the decision to relocate. As such, this figure also includes cases associated with landslides resulting from such hydrometeorological hazards. The figure provided for slow-onset hazards includes four cases in sub-Saharan Africa and one case in South America associated with coastal erosion. The sources reviewed in this research did not necessarily focus on climate change or link those hazards with the effects of climate change, and it is therefore not possible to confidently categorize specific cases as climate-related. For a more detailed explanation on attribution to climate change and suggested further reading, see Bower and Weerasinghe (2021), footnote 81, p. 31.

implemented with the support of the World Bank.[53] The most recently initiated planned relocation reported in the literature was in the State of São Paulo in Brazil, following heavy rains and landslides that occurred in March 2020 and affected hundreds of people (Winkhardt-Enz et al., 2020).

Most of the historical cases prior to 2000 also occurred in Central and South America and in the Caribbean (19 cases altogether), with several following hurricanes and El Niño episodes in the 1990s. The earliest cases identified, initiated in the period between 1970 and 1989 (9 cases), were almost all related to particularly destructive phenomena following which reconstruction in the original site was not possible, such as landslides and coastal erosion. This includes three cases in West Africa (Benin, Côte d'Ivoire and Senegal), which were the earliest identified cases of relocation in relation to coastal erosion (see Box 2 in section III).

Of the 101 cases identified, at least 73 cases, or close to three quarters, had been completed at the time of the publication of the primary source. Twenty-six (26) cases had not been completed, including two suspended cases,[54] and 15 cases in the very early stages of planning where the relocation site was being identified or prepared (six cases in West and Central Africa, and nine cases in South America).[55] Two cases in Ecuador could not be categorized as the full text of the source could not be accessed (Testori and Iuorio, 2020).

Figure 5. Temporal distribution of identified planned relocation cases (number of cases)



Further analysis could help to understand whether these trends in time are linked to increased exposure and vulnerability to hazards and risks, their increased destructiveness, or growing political consideration of planned relocation as a viable option. These findings could also reflect increased research interest and efforts to document planned relocation in the context of hazards, disasters and climate change, encouraged by greater political visibility of this topic.

53 This includes five cases in Sao Tome and Principe, and the case of Saint-Louis in Senegal (World Bank, 2018; World Bank, 2020).

54 Addis Ababa in Ethiopia, and Adjaria in Georgia (Tamru, 2002; Galstyan, 2015). See footnote 24 above.

55 Five cases in Sao Tome and Principe (World Bank, 2018); Senegal (World Bank, 2020); Colombia and Ecuador (IOM, 2017); and seven cases in Peru (Lavell et al., 2015).

2.2

GENERAL CONSIDERATIONS

Overall, the findings from the review of French, Spanish and Portuguese-language academic and grey literature are consistent with the findings from the English-language literature review presented in Bower and Weerasinghe (2021) concerning spatial patterns, associated hazards and temporal dimensions. The implications of these initial findings regarding such issues as the complexity and multiplicity of drivers and motivations, blurred distinctions between preventive and responsive measures, questions of agency, choice and coercion, as well as considerations regarding different types of spatial patterns in relation to other factors, are discussed in depth in Bower and Weerasinghe (2021:42–49), along with recommendations for further research areas.

The 101 additional cases identified in this study help to further illustrate the complexity of planned relocation practices, for which simplified typologies may not always work. For example, the difficulty to assign clear spatial patterns in many cases points to the complexity of broader geographic, temporal, social and environmental dynamics in which these cases occur. This is for instance evident in cases where relocation sites initially built following one particular disaster to host a specific community expand over the years to receive other communities affected by new hazard events (for example cases in La Paz or Santa Cruz in the Plurinational State of Bolivia,, Hardy and Combaz 2009; Antelo, 1985), or cases in urban contexts, such as Talca or Concepción in Chile (Cárdenas Piñero and Fuster Farfan, 2018; Matus Madrid et al., 2016), where movements within and between reconstructed neighbourhoods are particularly difficult to track and categorize. Beyond epistemological considerations, such complexity, coupled with insufficient availability of data, entails very practical challenges for the monitoring and assessment of individual and community-level outcomes, and therefore for building a better understanding of planned relocation to inform decision-making. This points to the need for more systematized empirical research approaches to planned relocation globally, for example through the development of harmonized research guidance that could allow to eventually build a more comprehensive set of comparable global and regional data.

This study helped to complement the work of Bower and Weerasinghe by incorporating a broader body of published international research, thus contributing to improving the geographic scope and balance of the global mapping of planned relocation cases. The literature review conducted here, as well as discussions with experts, indicate that many more cases are likely to be occurring or are currently under consideration in different regions of the world,[56] and more research could be conducted to identify and analyse them. For cases that are in their very initial stages, or still under consideration, early identification may allow to identify opportunities for providing guidance and support to the actors involved.

As the evidence base continues to grow, so may opportunities for more advanced thematic and comparative analysis in the future, which could look into different practices and planned relocation outcomes within and across regions, and ultimately contribute to identifying effective practices. The methodology for the global mapping adopted here could be expanded further to record more systematically examples of policies and legislation put in place by governments; supporting actors participating in

56 For example, many additional cases located in Peru were found through exchanges with experts in the region, but since they were documented in English or required further research beyond the scope of the IOM study, they will have to be included during a future update of the database. In another example, an IOM report from a workshop in Cuba mentioned past relocation cases, but no further information could be identified; additional research should be encouraged. As a third example, documentation related to an ongoing World Bank project in West Africa suggests that more countries may consider planned relocation measures in the coming years. A regular monitoring of the outcomes of this project could therefore help to identify additional cases if they indeed take place.

relocation processes;[57] socioeconomic data, where recorded in the literature, as well as findings from household surveys and main conclusions and recommendations identified in existing research. While these elements were not covered in the present study, the literature review pointed to a significant body of evidence available regarding policy frameworks,[58] or assessments of community and individual outcomes conducted by researchers from a broad spectrum of disciplines.[59] An in-depth analysis of the results of these studies could provide valuable insights into factors influencing relocation outcomes in practice, and thus help to inform the planning and design of potential future relocation initiatives in cases where no alternative solutions are available.

Category Five Hurricane Dorian was the worst disaster to ever hit landfall in the Bahamas. The storm struck in August 2019 and affected more than 70,000 people. © IOM 2019/Muse MOHAMMED

57 In many cases, the literature reviewed for this study mentioned international and local non-governmental organizations, international multilateral agencies and development banks, or private sector foundations supporting the relocation process. The World Bank was the most commonly cited organization in the literature identified in this mapping, particularly in sub-Saharan Africa, which may be in part related to its extensive work and guidance on resettlement in the context of development projects, as well as its growing portfolio of climate change adaptation and disaster risk reduction projects. Accessibility of World Bank documentation may also explain these findings. Despite more limited evidence, other international actors may also be supporting relocation initiatives, and a mapping of international UN and non-governmental agencies involved in planned relocation could be useful to further identify existing experience and practices.

58 See Box 1, as well as footnotes 22, 23 and 34 in Bower and Weerasinghe (2021).

59 For example, household satisfaction surveys were conducted by researchers in Cabo Verde (Chouraqui and Texier, 2016), Colombia (Chardon, 2010), Mexico (Rodríguez García et al., 2016), the Niger (Alou et al., 2019).

Box 1. National legal and policy frameworks

In the past few years, several global and regional mapping exercises have been conducted to identify national legal and policy frameworks addressing human mobility (migration, displacement and planned relocation) in the context of climate change. These include the work of such actors as the International Organization for Migration or the Nansen Initiative and its successor, the Platform on Disaster Displacement. A 2018 IOM report produced in support of the implementation of the Workplan of the WIM Task Force on Displacement reviewed national human mobility policies and climate change policies for provisions relating to migration, displacement and planned relocation (IOM, 2018a). In parallel, a study commissioned by the Platform on Disaster Displacement in 2018 provided a preliminary baseline of national and regional disaster risk reduction strategies integrating human mobility considerations (Yonetani, 2018). These efforts allowed to identify some national policies that include references to planned relocation in the context of hazards and climate change.

For example, Canada, Cook Islands, Cuba, Fiji, Kiribati, the Maldives, Malta, Mozambique, Papua New Guinea, Rwanda, Sao Tome and Principe, United Republic of Tanzania, Tonga, Tuvalu and Uruguay are among countries that have referred to planned relocation as a potential strategy for climate change adaptation in various policy documents such as National Adaptation Plans (NAPs), National Adaptation Programmes of Action (NAPAs), nationally determined contributions (NDCs) or intended NDCs, national communications (NCs) and other domestic climate change adaptation policies, including joint climate change and disaster risk management action plans (Ionesco et al., 2017; IOM, 2018a). In addition to these countries, references to relocation have also been identified in national disaster risk reduction policies and strategies in Bangladesh, Côte d'Ivoire, Egypt, Grenada, India, Japan, Malawi, Myanmar, Namibia, Pakistan, the Philippines, the territory of American Samoa, Vanuatu, Viet Nam (Yonetani, 2018). With the exception of a few countries that have developed dedicated policy instruments, guidance or plans addressing relocation in more detail such as Fiji and Vanuatu (Bower and Weerasinghe, 2021) or Uruguay (IOM, 2018a), or countries such as India, Pakistan, or Viet Nam (among others), whose national DRR plans and policies include slightly more advanced language on relocation (Yonetani, 2018), most available instruments only briefly refer to relocation among possible measures and issues to consider, and do not provide a comprehensive and practical framework to guide such relocation. This, however, does not necessarily entail an absence of applicable national norms and instruments: provisions of relevance to planned relocation may exist under other sectoral policies and legislation.

To date, no thorough global review has been conducted to map and analyse national legislation and policies applicable to planned relocation specifically. The present literature review allowed to identify a few additional examples of national frameworks, in Argentina, the Plurinational State of Bolivia, Burkina Faso, Colombia, Cuba, France, Morocco, Mozambique and Peru, which help to illustrate further the diversity of applicable instruments and policy sectors that have been used by different countries to guide relocation processes. Peru for example has adopted a dedicated law on population relocation for areas of very high unmitigable risk in 2012, amended in 2017, which outlines key definitions, principles, and organizational, institutional and financial modalities for relocation (Government of Peru, 2012; IOM and PIK, 2021). Plurinational State of Bolivia, Burkina Faso and Colombia have national disaster risk management laws that include provisions for relocation in anticipation of or in response to hazard risks (Government of the Plurinational State of Bolivia, 2014; Government of Burkina Faso, 2014;

Government of Colombia, 2012). In Argentina, a local level law on fair access to housing adopted in the Province of Buenos Aires in 2013 specifies circumstances under which population relocation may be conducted, which includes environmental risk factors (Government of Buenos Aires Province, 2013; Bernat, 2020). In Mozambique, the national disaster management law considers relocation as a preventive measure and clarifies relevant institutional responsibilities (Government of Mozambique, 2014; da Conceição Rebelo, 2020). In France, the 2012 Integrated Coastal Zone Management Strategy encourages local governments in coastal areas to consider planned relocation inland, and several communes have developed relocation feasibility assessments as part of a governmental pilot project (Mineo-Kleiner and Meur-Ferec, 2016). In Morocco, the 2009 national climate change response plan (Plan National de lutte contre le Réchauffement Climatique) addresses planned relocation and specifies institutional responsibilities in conducting relocation programmes (IOM, 2016). In Cuba, the State plan for addressing climate change Tarea Vida approved in 2017 considers planned relocation from risk-prone coastal areas (IOM, 2019). In other countries, governments have developed ad hoc frameworks to support specific relocation initiatives, building on existing legislation and practice in such areas as land use or disaster risk management (see examples of Ghana and Senegal in section III.2.I below).

These examples are not exhaustive, and many more are likely to be found through more in-depth research of domestic policies and legislation. As noted by Bower and Weerasinghe (2021), a more advanced mapping and analysis of national frameworks and provisions that have underpinned planned relocation would be valuable to identify possible policy gaps and inform potential future normative development.

3

FOCUS ON WEST AFRICA

As part of this research, a number of planned relocation cases have been identified in the West Africa region. In an effort to contribute to strengthening policy-relevant evidence on planned relocation in West Africa in the framework of the IOM project "Implementing Global Policies on Environmental Migration and Disaster Displacement in West Africa", the present section explores the findings for this region in more detail. Additionally, the present section briefly examines the wider context of relocation, mobility and territorial management practices in the region, from which important lessons could be drawn for future policy and planning in the context of hazards, disasters and climate change.

The analytical approach adopted for this section thus builds on, but does not follow strictly, the methodology used in Bower and Weerasinghe (2021), insofar as the selection of cases is based on their geographical location, and as some cases and practices outside of this study's definition of planned relocation are also considered in the second part of the analysis.

3.1 GEOGRAPHICAL SCOPE

The West Africa region, as defined by IOM for this project, comprises 16 countries: Benin, Burkina Faso, Cabo Verde, Côte d'Ivoire, the Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Mauritania, the Niger, Nigeria, Senegal, Sierra Leone and Togo (IOM, 2020a).

Cases of planned relocation meeting the criteria for the global mapping have been identified in Benin, Burkina Faso, Cabo Verde, Côte d'Ivoire, Ghana, the Niger and Senegal.[60] For the purposes

60 This list of countries includes results both from this study (Benin, Burkina Faso, Cabo Verde, Côte d'Ivoire, the Niger and Senegal) and from the mapping based on the review of English-language literature conducted by Bower and Weerasinghe (2021) (Ghana and Senegal). A total of 10 cases have been identified in West Africa across the two studies: 8 cases through the present study, and 2 cases through the English-language review.

of the detailed analysis presented in this section, a historical case of planned relocation in Cameroon, located between West and Central Africa, has been included as well in view of the limited number of sufficiently documented cases in the region and because of its relevance. Additionally, mentions of potential future relocation under examination have been noted in Burkina Faso, Côte d'Ivoire, Mauritania and Togo as part of ongoing integrated coastal management and resilience projects, and are briefly presented in subsection 3 below.

Other forms of community or individual resettlement and retreat (including self-managed relocation, individual housing subsidies, spontaneous abandonment of territory, evictions and infrastructure retreat) were identified through the literature review for Benin, Côte d'Ivoire, the Niger, Nigeria and Togo. While those cases do not meet the methodological criteria defined for the global and detailed mapping as part of this study, they offer useful insights into some of the practices that have been resorted to in the West Africa region in the face of hazards. These examples have thus been retained for the broader contextual analysis in this section.

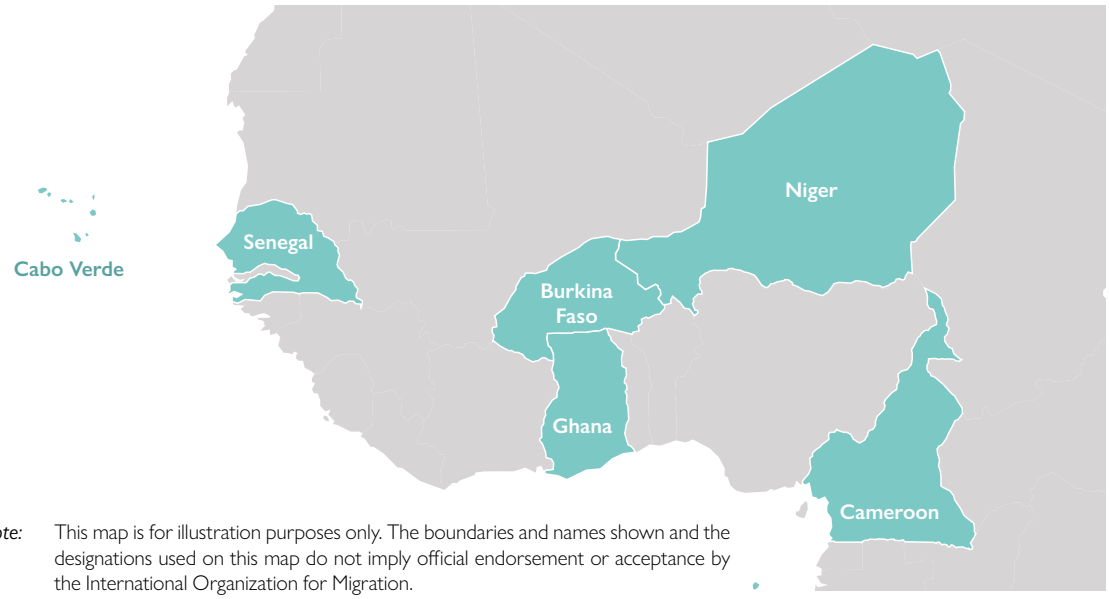
3.2

FINDINGS FROM THE MAPPING OF DETAILED CHARACTERISTICS

This subsection presents key observations from a more detailed analysis of selected planned relocation cases in West Africa and Cameroon, based on the methodology for the detailed mapping of context and design characteristics described in section I.2.b above and using codebook questions presented in Annex D. The results of this detailed mapping are presented in Annexes A, B and C.

A total of seven cases were retained for this detailed analysis, based on their geographic location and the quality and sufficiency of information provided in corresponding primary sources.[61] As explained in Bower and Weerasinghe (2021), a comprehensive literature review was not conducted for each case, and instead the analysis relied on a limited number of identified scholarly and grey literature.

Map of selected countries in West Africa for the detailed analysis



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

61 Of the 101 planned relocation cases identified in the present study, 8 were located in the West Africa region, of which only 4 were sufficiently documented to allow a more in-depth analysis of detailed characteristics (Burkina Faso, Cabo Verde, the Niger and Senegal). In addition, 3 cases identified in the English-language literature review (Bower and Weerasinghe, 2021) were included in this analysis given the quality of available documentation (Cameroon, Ghana and Senegal), bringing the total of cases reviewed in detail in this section to 7.

a. Locations, spatial pattern types and status

Cases included in this analysis are located in Burkina Faso, Cabo Verde, Cameroon, Ghana, the Niger and Senegal (two cases). Two of these countries are landlocked countries (Burkina Faso and the Niger). Two cases concerned coastal communities (Volta region in Ghana and Saint-Louis in Senegal), the others were located inland.

Most cases presented characteristics of spatial pattern type B (multiple origin to single destination),[62] except the case of Cabo Verde (type C – single origin to multiple locations) and the case of Ghana, which concerns three neighbouring communities that have been relocated to three separate (neighbouring) sites (multiple type A).[63] In the cases of Saint Louis, Senegal and Ouagadougou, Burkina Faso (both marked "unknown" due to differing levels of administrative designations), the relocation concerns populations from different neighbourhoods within the same city to a single new site on the outskirts of the city.[64]

In five of these cases, the relocation process had been completed at the time of writing (Burkina Faso, Cabo Verde, the Niger, Cameroon and Cité Jaaxay, Senegal). In two cases, the relocation was ongoing: in Ghana, the relocation had been partially implemented before being temporarily interrupted due to lack of funding; the Government planned to continue the process in the future after securing additional funding. In Saint-Louis, Senegal, the process had been initiated in 2018 and was still in the early planning stages at the time of the publication of the primary source.

b. Associated hazard(s)

Most of the cases analysed were associated with climate-related hazards: three cases (Burkina Faso, the Niger and Dakar in Senegal) were initiated in the context of hydrometeorological hazards (floods), and two (Ghana and Saint-Louis in Senegal) in the context of coastal erosion and floods. Two cases (Cabo Verde and Cameroon) were associated with geophysical hazards (volcanic and limnic eruptions). Thus, five cases out of the seven included are linked to hazards that are known to be affected by climate change and whose frequency and intensity could increase in the future.

c. Displacement

In all seven cases, the relocation took place after the population had been displaced following a specific hazard event. In the case of communities relocated in the context of floods and coastal erosion, some of the communities are likely to have experienced several episodes of flooding in the past, before being relocated. This is also the case of affected communities in Saint-Louis, Senegal, for whom the relocation process is yet in the very early stages: the project that supports the planned relocation also includes a component for the provision of temporary accommodation for families displaced by coastal floods while the permanent relocation site is being prepared. In all these cases, relocation took place both as a reaction to hazards, and in anticipation of future risk.[65]

d. Distance from origin to destination

In the six cases where relocation had already taken place, distances between the sites of origin and the sites of destination ranged between 9 and 43 kilometres, except for Ghana and the Niger. In these two cases, relocation sites were located between 1 and 3 kilometres away from the original sites. In the case of Saint-Louis, Senegal, where the relocation process was still being planned at the time of the publication of the source, the site selected for the permanent relocation was located about 13 kilometres away from the affected residential coastal areas, further inland, in the same area where temporary accommodation sites had been set up for families displaced following storm surges and coastal erosion.

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62 The case of Cameroon is particular, since the populations from four villages affected by the limnic eruption were initially relocated to seven camps; however, survivors from six camps were resettled within the local population, while one camp (Ukpwa) was turned into a permanent relocation site. The article focuses exclusively on the latter, hence the categorization of this movement as B and not D.

63 See footnote 47.

64 In the case of Ouagadougou in Burkina Faso, some evidence suggests that part of the population may have been relocated to another relocation site (Basseko), for which no information could be found, providing an additional reason for marking it "unknown". Given the focus of the primary source on the Yagma site and considering that the majority of the relocated population went to that site, this case is considered to have more similarities with type B cases.

65 See Bower and Weerasinghe for a more in-depth discussion on "proactive" and "reactive" relocation (2021:43–44).

Findings from household surveys and interviews with community members presented in the literature regarding the six cases where relocation had already occurred provide some additional insights into perceptions of distances and accessibility by the relocated populations. In Burkina Faso, Cabo Verde, Cameroon and Cité Jaxaay in Senegal, where distances between the origin and destination sites were the largest, surveys and interviews conducted with relocated populations showed that the new sites were often perceived as remote from the original location and from livelihood opportunities. Accessibility was also noted as a challenge in the case of Séno in the Niger, despite the relatively shorter distance between the sites of origin and the relocation site (Alou et al., 2019). On the other hand, communities in the Volta Region in Ghana, who were relocated close to the original location of their villages, expressed overall satisfaction regarding the distance from origin to destination (Danquah et al., 2014).

e. Number of households

The number of households or persons affected was not always clear; most sources reported the number of people, rather than households. This ranged from 948 people relocated from Chã das Caldeiras in Cabo Verde, to 13,000 people identified for relocation to Yagma, Burkina Faso. In the case of Nyos in Cameroon, the figures were unclear; however, there were at least 650 residents in the relocation site at the time of the field research. In the case of Cité Jaxaay in Senegal, the government had built 4,000 housing units; with an average household size ranging between 7 and 11.7 people, these units could potentially accommodate between 28,000 and 46,800 people. In the case of Saint-Louis in Senegal, the project documents mentioned that at least 5,000 people were to be relocated (World Bank, 2020). In Ghana, the relocation scheme initially concerned 1,200 households (or approximately 4,560 people given the average household size in this region of Ghana, i.e. 3.8 people), of which only part was relocated, with 573 housing units constructed by 2016.

While these findings do not allow to provide meaningful conclusions regarding the numerical scope and trends of relocation projects in the region, they point to the need for more systematic data collection in relation to planned relocation cases, and for more consistent monitoring of the numbers of populations concerned.

f. Duration of the process

In the four cases where this information was clear (Cabo Verde, Burkina Faso, the Niger and Cameroon), the relocation was finalized within a year from the hazard event that triggered it.[66] The remaining three cases (Ghana and two cases in Senegal) had not been completed or only partially implemented at the time of the publication of the source. In Ghana, the process lasted close to 15 years, before being interrupted due to lack of funding.[67] In the case of Cité Jaxaay in Senegal, for which the information was unclear, it appears that the construction of houses and the relocation of people (announced in 2005) were delayed by several years.[68] The duration of the relocation of coastal communities in Saint-Louis, Senegal, is yet to be determined. The need for planned relocation of these specific communities was first identified in 2018, and since then a number of assessments and consultations have been undertaken in order to evaluate the needs and identify the destination site, and to raise additional funding (World Bank, 2020).

66 In the case of Cabo Verde, the source was not clear on whether the relocation solutions described in the article were final or interim: the government had promised to provide alternative housing after the site of origin had been declared an exclusion zone.

67 According to the literature, the process was expected to resume once funding became available.

68 While the timeline for the relocation of the population described in the primary source for this case is unclear, an alternative source mentions the relocation to the same site of residents of another area of Dakar following floods in 2010, meaning that at least part of the housing had been completed by then (GRDR Migration-Citoyenneté-Développement, 2014).

In Somalia, there are an estimated 2.9 million people internally displaced due to conflict and natural hazards. © IOM 2020

g. Indigenous groups

Only one case out of the seven involved communities that identify as indigenous (two of the communities relocated in Ghana). Interestingly, this was a multiple type A case,[69] with the source indicating that the cohesion of these communities was kept through the relocation process.

In two other cases (Nyos in Cameroon and Saint-Louis in Senegal, both type B), the relocated communities were clearly identified as being of mixed ethnicity, reflecting the complexity of historical, cultural and demographic dynamics in the region. However, the implications of that observation in relation to the relocation process were not clear, except in view of possible risks of tensions with the host communities in the destination site in the case of Senegal .

h. Rural or urban

More than half of the cases were in urban contexts (Burkina Faso, the Niger and the two cases in Senegal), and in line with the findings in Bower and Weerasinghe (2021), they commonly involved multiple origins and/or destinations. Interestingly, all of these cases involved the relocation of residents from central parts of the city to a more remote, previously unoccupied site at the outskirts of the city (in the cases of Ouagadougou and Dakar, as far as 20–25 kilometres away from the city). In these two cases, the sites of origin were informal settlements. This finding is important as it may reflect socioeconomic inequalities in exposure to hazard, as well as in access to disaster risk reduction and adaptation assistance and in the choices of measures put in place. It also raises questions as to possible other underlying motivations behind these

69 See footnote 47 for an explanation regarding multiple type A cases.

relocation processes, for example related to land use and urban development.

The three cases that took place in a rural context (Cabo Verde, Cameroon and Ghana) involved three different spatial patterns, making meaningful comparison difficult.[70] It can be noted, however, that in the cases of Cabo Verde and Cameroon, where the populations had been relocated furthest away from their original land and sources of livelihoods (agriculture, livestock), high levels of dissatisfaction were noted with regard to economic opportunities. This demonstrates the particular importance of ensuring access to land and natural resources in planned relocation cases occurring in rural settings in order to preserve traditional livelihoods and ensure the economic sustainability of the relocation.

i. Initiating actor(s) and supporting actor(s)

In all of the seven cases, the decision to initiate planned relocation was made by government actors, mostly at the national level, based on the information available in the sources. In two cases occurring in urban settings (Niamey and Saint-Louis), local level governments were also involved.

The initiating actors were also the ones leading and supporting the process in all cases. In five out of the seven cases, additional support was provided by national and international non-governmental organizations, including two cases (the Niger and Saint Louis, Senegal) for which financial support was received from development banks. For two cases (Ghana and Cité Jaxaay, Senegal), no evidence was provided of participation of national or international actors other than the government.

Based on the available information, none of the seven cases seem to have been initiated or organized by the communities themselves. However, in some of the cases (the Niger, Burkina Faso), communities were in charge of constructing their own housing with the materials provided by the government.

j. Assessments at site of origin and site(s) of destination

Except for the case of Saint-Louis in Senegal, none of the available sources provided sufficient information to ascertain whether formal assessments of the locations of origin or destination had been conducted in order to determine the need and feasibility of relocation as well as possible alternative solutions. The case of Saint-Louis in Senegal is different insofar as it is implemented in the framework of a project supported by the World Bank, which has very specific guidance and policies regarding environmental and social safeguards and "involuntary resettlement", and requires a set of environmental and social assessments and plans to be developed prior to the initiation of activities (Government of Senegal, 2020).

k. Participation mechanisms

Evidence of community participation in the relocation process was only available for two cases – Ghana and Saint-Louis, Senegal, although no details were provided.[71] Some information available in the sources related to the case of Niamey, the Niger seem to indicate that some discussions were undertaken with the host populations in order to convince them to sell their land for the construction of the relocation site. The information provided in the source on Cabo Verde points towards a lack of participation and involvement of the affected population. For the remaining three cases, it was not possible to ascertain the availability of participation mechanisms or consultative processes involving the population prior and during the relocation process.

70 The case of Cabo Verde differs from other cases in that it is not a case of relocation to a new site, but rather a combination of evacuation and resettlement to four existing cities and settlements in a context of the establishment of a no-return zone in the site of origin. The destination sites are both rural and urban.

71 In Saint-Louis, Senegal, according to some documents of the World Bank, consultations with the population were planned as part of the project, but not initiated yet.

l. Legal and policy frameworks

Bower and Weerasinghe (2021) provide a detailed explanation of the difficulties related with the identification of relevant national legal and policy frameworks which they encountered as part of their mapping of planned relocation cases, in part related to the methodology used for the analysis. These considerations and limitations are applicable to the present analysis as well, which was based on a limited number of identified sources that did not necessarily focus on policy aspects, rather than on a more detailed national policy review.

The findings in this study are similar to those presented in Bower and Weerasinghe, pointing to an overall absence of national frameworks directly concerned with planned relocation, or to the inadequacy or insufficiency of existing policies. One of the sources on the Niger, for example, noted that local flood management policies were nascent (Oumarou, 2017). In Burkina Faso, several broad climate change adaptation,[72] disaster risk reduction and development frameworks were in place, but were neither directly applicable to relocation, nor consistently applied (Lassailly-Jacob, 2015).[73] The source concerning the case of Cité Jaxaay in Senegal did mention a new social housing construction policy adopted following 2005 floods, which consisted of "resettling people displaced from flood zones into houses which are constructed and subsidized by the state", and which underpinned the relocation process to Cité Jaxaay (Schaer et al., 2018). However, information regarding the nature and scope of this policy was limited and more in-depth research may be useful to understand its provisions and applicability.

The cases of Ghana and Saint-Louis, Senegal, provide interesting examples of project-specific frameworks developed to support a planned relocation process in the absence of dedicated national policies and legislation. In Ghana, where no policy framework specific to relocation existed, to support the relocation process in the Volta Region, the national and local governments relied on several existing policies and legislative acts, as well as on past experience from disaster- and development-related resettlement plans in Ghana (Salifu, 2016). In Saint-Louis, relevant national frameworks were identified and examined as part of the project, and complemented by World Bank policies and guidance to provide a framework for the planned relocation undertaken under the project. The main national frameworks mentioned were the Constitution, land use legislation, as well as a 1976 law relating to expropriation of land in the public interest (Government of Senegal, 2020). None of these national frameworks, however, were explicitly designed to accompany planned relocation.

m. Livelihood opportunities

With the exception of the case of Saint-Louis, Senegal, according to the available sources, livelihood opportunities in the destination sites did not match those in the sites of origin for most of the cases reviewed here.

This was particularly salient in the cases of relocation in rural contexts in Cabo Verde, Cameroon and Ghana, where communities were not able to recreate their traditional livelihoods dependent on land and natural resources, and no alternative livelihoods were available. In the cases of Ouagadougou and Niamey, which took place in an urban context, the distance between the relocation site and the city centre where main economic opportunities were centralized constituted a significant challenge for the relocated population. Thus, many beneficiaries of the relocation schemes in these two cases preferred to sell, rent out or leave the plots allocated to them in the relocation sites, and return to the city. In this context, it is noteworthy that in the case of Burkina Faso, relocated households were given land titles, thus protecting them from future risk of evictions (and evidently allowing the sale of their plots), which to some extent could be considered as an improvement compared to their situation in the site of origin. No information regarding livelihoods was available in the source relating to the case of Cité Jaxaay, Senegal.

72 The Burkina Faso National Adaptation Programme of Action in the context of climate change recognizes migration as an adaptation measure adopted by some populations, but mostly considers it as a failure to adapt, and does not include any provisions for relocation.

73 In 2014, five years after the relocation case documented here, Burkina Faso adopted a national law relative to the prevention and management of disaster risk, humanitarian crises and disasters (Law 012-2014/AN), which includes provisions for planned relocation ensuring community participation and protection mechanisms (art. 54 and art. 55, Government of Burkina Faso, 2014). Its content may have been shaped by the lessons learned from the 2009 relocation process (Bronfort, 2017).

The relocation process in Saint-Louis in Senegal is an ongoing case and its impacts on livelihoods are yet to be seen. It is interesting to note, however, that as part of this project supported by the World Bank, a livelihood restoration strategy has been developed, and the project documents indicate that both relocated and host communities will benefit from investments and infrastructure support (Government of Senegal, 2020).

n. Challenges[74]

The detailed review of literature offered insights into some of the challenges encountered and perceived by the populations and other actors, which were consistent with the challenges identified in the English-language review (Bower and Weerasinghe, 2021). This included issues related to economic opportunities; access to traditional livelihoods; distance and accessibility in relation to the place of origin, key services and employment; quality of facilities and size of property in the relocation sites; disrupted social networks and cultural or religious practices; possible tensions with host communities, particularly where land had been requisitioned to build the relocation sites; as well as impacts on physical and mental health. Exposure to hazards in the relocation site was noted in one case (Schaer et al., 2018), and increased level of crime was mentioned in another (Ngenyam Bang and Few, 2012). In the cases of relocation to destination sites built in previously unoccupied areas, issues with access to basic services such as water, sanitation and access to medical facilities were also noted. In several cases where people were given material support to build their own housing, resources were not sufficient to finalize the construction (Alou et al., 2019; Bronfort, 2017). With regard to the size of housing, one of the issues noted in some cases was that standardized housing units did not take into account the actual size of households (Alou et al., 2019; Salifu, 2016). Dissatisfaction of the population with government support as a result of unmet promises and expectations was noted in at least two cases (Ngenyam Bang and Few, 2012; Salifu, 2016). Funding challenges were also noted in several cases, resulting in the suspension of the relocation process or the end of financial support to households and community-level investments at the relocation sites (Alou et al., 2019; Lassailly-Jacob, 2015; Ngenyam Bang and Few, 2012; Salifu, 2016).

Agricultural communities are affected by the transit of transhumant pastoralism displaced by insecurity and climate change, Nigeria. © IOM 2021/Natalie OREN

74 As noted previously, this report does not aim to assess the outcomes of planned relocation cases, but rather to gather information and evidence that could support future research and efforts towards identifying outcomes, effective practices and pitfalls of planned relocation interventions. The elements presented here reflect some issues identified in the available literature, which could offer some directions for further research and analysis.

considered as a representative or comprehensive overview of characteristics of planned relocation practices that could be extrapolated to the West Africa region. Instead, the analysis provides insights into some of the past and ongoing cases implemented in the region and serves to illustrate the variety of existing practices. Some common observations and recommendations for further research can, however, be derived from the findings presented above:

- **Planned relocation as a measure in the context of hazards, disasters and climate change:** The small number of cases in West Africa identified in the literature shows that some governments in the region have already resorted to planned relocation in the context of disasters and the adverse effects of climate change. In some cases, relocation processes were conducted in the framework of adaptation projects supported by international donors and organizations in the past decade. Given the increasing frequency and intensity of hazards and effects of climate change and projected trends in exposure and vulnerability, particularly in the context of demographic and urbanization dynamics in West Africa, political attention to planned relocation as a possible strategy to address these risks may continue to grow in the coming years. In this context, it is critical that any decision-making is based on robust evidence, guidance, and full consideration of associated human rights concerns, risks and social and economic costs, as well as other available adaptation and risk reduction options prior to engaging in such costly and complex processes as planned relocation. Further research to identify hotspots, assess risks, and identify possible adaptation and risk reduction options and their costs would be important to support decision makers in the region. Alternative measures to planned relocation such as through sustainable urban planning, protective infrastructure, ecosystem-based solutions could offer less costly and more sustainable solutions.

- **Complex motives and underlying factors:** In the cases analysed here, evidence of formal assessments, adequate consultation mechanisms and comprehensive policy and legal frameworks was lacking. Additional evidence from the literature suggests that relocation may not always be solely motivated by comprehensive consideration of risks, trade-offs and alternative solutions, and that some other underlying factors may be at play. Several cases analysed here involved populations from informal settlements – it is unclear if wealthier neighbourhoods may have been exposed to the same hazards, and if alternative solutions were found to protect them; it is also unclear how the evacuated land was used. In this context, further research is important to identify the underlying political and socioeconomic factors, as well as inequalities, that may affect the choice of one type of adaptation and risk management measure over another. More resources could be invested in the study of the feasibility, costs, trade-offs and barriers to the implementation of different adaptation and disaster risk reduction measures in any given context to help governments prioritize approaches that are most effective at reducing people's vulnerability in the face of hazards and climate change, and that best protect their human rights and dignity.

- **Distances and accessibility:** Beyond geographic distance,[75] remoteness and accessibility of relocation sites (in terms of access and availability of livelihood opportunities and key services) require particular consideration when planning relocation processes. Further research could look into cases where people preferred to return to sites of origin or chose commuter or 'translocal' lifestyles (such as Burkina Faso, the Niger, or Cabo Verde) in order to analyse factors behind their decisions, and contribute to identifying possible ways to address such challenges. Cases analysed here have illustrated the importance of economic security and income generating opportunities, sometimes at the cost of physical security as people end up choosing greater exposure to hazards over economic precarity. More efforts could

75 On the matter of trade-offs related to proximity of destination sites to places of origin, including those related to hazard exposure, see Bower and Weerasinghe (2021), p. 47.

therefore be directed at identifying concrete examples of effective practices to ensure the continuity and/or restoration of livelihoods as part of planned relocation, whether it is through opportunities provided in situ, or through reliable and affordable transportation to places where employment and livelihood opportunities are located. It would also be useful to explore further the specificities of relocation taking place in rural contexts versus urban contexts in terms of accessibility and needs in relation to livelihoods, economic opportunities and key services. In addition, many of the urban cases analysed here concerned already marginalized populations living in informal neighbourhoods, and there are important lessons to be drawn from these cases regarding risks of further marginalization that relocation may entail in the absence of measures to support livelihoods and access to basic services in the destination sites. Conversely, further analysis and research would be useful to identify examples of concrete proactive measures which may have contributed to improving the physical, economic and social well-being of affected communities compared to their situation before the relocation.[76]

- **Solutions must be tailored to the needs and based on data:** Evidence from the identified cases illustrates how standardized approaches can often fail to meet the needs of the affected populations. This was for example the case of relocation programmes in the Niger and Ghana, where, according to the sources identified in the literature review, the standardized housing units provided by the Government in the relocation sites did not take into account the actual size of the households. In other cases, relocated persons were not able to access similar employment opportunities or conditions for agricultural practices in the destination sites. This points to the need to conduct thorough socioeconomic assessments of the populations and their needs prior to initiating relocation projects.

- **Ensuring sustainability, monitoring and accountability of relocation processes:** In several cases reviewed here, unavailability of long-term funding and support proved to be a major challenge, resulting in the incompletion or suspension of initial relocation plans. As any relocation initiative is likely to be costly, particular attention must be given to assessing all costs involved and identifying sources of funding and partnerships that would ensure that these costs are fully covered, prior to initiating relocation. Monitoring and accountability mechanisms should also be put in place to regularly assess the needs of relocated communities and progress towards achieving adequate living conditions in line with key human security and human rights indicators. In this context, partnerships with local civil society partners could be key to complement governmental support, as has for example been the case in Burkina Faso and Cameroon (Lassailly-Jacob, 2015; Ngenyam Bang and Few, 2012), where NGOs played an important role in ensuring access to basic services in relocation sites. More research into the role of NGOs, particularly to understand their possible role and capacity to support monitoring and evaluation, could be valuable.

- **From principles and guidance to practice:** The lack of evidence regarding the existence of formal assessments of sites of origin and destination and the need and feasibility of relocation, participatory mechanisms and policy frameworks stands out significantly. These findings may be partly related to the methodological limitations of this study noted earlier (these issues may not have been the primary focus of the literature reviewed here, and lack of information does not necessarily indicate an absence of such mechanisms). However, further research would be beneficial to confirm the existence or absence of such efforts and frameworks, and to identify and analyse examples of tools and mechanisms applied on the ground. In cases where assessments and participatory mechanisms were lacking, further research could help to understand the underlying causes and possible barriers explaining their absence. This could be linked for example to the availability and accessibility of guidance and standards on planned relocation, their applicability and relevance to the national

76 This study has not examined effective practices systematically, as this was beyond its scope. However, some examples cited in the case studies analysed here include the granting of land titles to relocated people, regardless of their previous property ownership status, thus protecting them from future risks of eviction (Lassailly-Jacob, 2015); or modernized housing and utility and infrastructural improvements (Danquah et al., 2014).

context. Availability of funding, as well as access to international funding and assistance, which may come with specific requirements and guidance (such as in the case of Saint-Louis, Senegal implemented with the support of the World Bank), may be another determinant to explore. For more recent cases, it would be interesting to explore whether existing international guidance on assessments, participatory approaches and policy development was considered, to analyse whether and how it was applied, or to identify possible barriers to its practical application.

- **Strengthening the evidence base:** Multiple knowledge gaps were identified in the review of literature relating to planned relocation cases in West Africa, in particular regarding numbers and socioeconomic characteristics of populations affected; assessment and participation mechanisms put in place; national policy and legal frameworks; and long-term outcomes and mobility trends. In addition, more cases of planned relocation may exist in the region that have not been captured in this research due to methodological constraints or for lack of documentation, and additional research could help to identify those. The main recommendation from this study of cases in West Africa is that more systematic research and data collection should be encouraged at local, national and regional levels in order to constitute a more reliable evidence base on planned relocation in the region that could inform future policy and practice, and most importantly, to allow adequate monitoring and follow up for existing cases of planned relocation, in order to ensure that the needs of the affected populations, including those who are most vulnerable, are met, and that protection gaps are addressed. A specific recommendation would be to promote local research by strengthening the capacity of national research institutions to undertake research on planned relocation, including through a clear research agenda, more systematized guidance for research on planned relocation, as well as dedicated funding.

3.3 ADDITIONAL FINDINGS FOR WEST AFRICA

The literature review conducted for this study helped to identify several more cases in West Africa of interest to this analysis. Three additional cases corresponded to planned relocation as conceptualized in this research and were included in the global dataset, but not in the detailed analysis due to insufficient data (see Box 2). Several other cases corresponded to other forms of collective or individual relocation or abandonment of settlements not fitting the criteria selected for this research. All these examples provide valuable insights into some of the territorial and mobility management practices occurring in the West Africa region which could inform policy development on planned relocation. This subsection provides an overview of these examples and briefly discusses some implications in the context of regional policy development and practice.

a. Trends and practices

The literature review conducted for this study confirms the findings presented in an overview of migration and displacement trends in the context of climate change and disasters in West Africa by Gemenne et al. (2017), that the majority of instances of relocation of people in West Africa have been related to development and infrastructure projects, rather than as part of disaster risk reduction or climate change adaptation strategies. Indeed, most results from the screening of literature mentioning "relocation", "retreat" or "resettlement" in West Africa were associated with large-scale national and regional projects, such as for the development of transport and electricity infrastructure (including roads and dams), mining, or urban infrastructure development. Most of these have been undertaken within the framework of projects supported by the World Bank[77] and followed the institutional guidance and policies on "involuntary resettlement", requiring environmental and social impact assessments, as well as the design of project-related Resettlement

77 See footnote 57 on the prevalence of examples of projects supported by the World Bank in the literature identified in this review.

Action Plans. A search of the World Bank document database[78] for resettlement action plans in West Africa gave 469 results relating to over 100 projects in 15 countries in the region.[79] Only a few of these projects were related to disaster risk reduction or adaptation,[80] of which only one involved relocation of communities as a project activity and deliberate strategy for risk reduction, namely the case of Saint Louis in Senegal discussed above.[81]

As shown in the previous subsection, planned relocation has already been resorted to as a risk reduction or adaptation measure in several countries in the West African region, particularly in the context of coastal hazards and riverine floods. Additional (historical) examples of planned relocation were found in Côte d'Ivoire, Benin, and among rural coastal communities in Senegal (see Box 2).

Other sources identified in this review pointed to possible future relocation needs which are currently under discussion. For example, authorities and residents of flood-prone areas of Dori, Burkina Faso, have been exploring relocation to safer areas as one possible option for risk reduction (Tomety, 2017).[82] Literature relating to the case of Ghana points to the intention to continue the relocation of coastal communities in the Volta region once additional funding becomes available (Salifu, 2016). In Nigeria, the National Emergency Management Agency recommended the relocation of communities living in flood-prone areas to higher grounds (Gemenne et al., 2017).

Possible consideration of relocation as an adaptation option has also been mentioned in documentation related to the World Bank West Africa Coastal Resilience (WACA) programme.[83] The programme currently covers nine countries in West and Central Africa,[84] and aims to strengthen the resilience of coastal communities and assets exposed to coastal erosion, flooding and pollution. Country-level implementation plans are tailored to the specific needs identified at the national level and therefore vary from one country to the other. Activities planned in Sao Tome and Principe will specifically focus on supporting the relocation of vulnerable coastal communities, as a follow up to previous World Bank projects under which the process was initiated.[85] Project documentation available for Côte d'Ivoire, Mauritania, Togo and Senegal indicated that relocation of people living in at-risk areas could also be considered as a possible project activity in these three countries (Lombardo, 2017; Government of Mauritania, 2017; Government of Togo, 2017; Government of Senegal, 2017).

The literature reviewed for this study indicates that diverse other individual strategies and governmental land use management measures have been employed in the face of hazards and risks in the region. This includes spontaneous collective or individual abandonment of villages, with examples identified in coastal areas near Lomé, Togo, in the 1980s (Ozer et al., 2017); collective abandonment of drought-affected villages in the Niger with subsequent reestablishment in other regions, also

78 https://documents.worldbank.org/en/publication/documents-reports. The documents in the database were not explored in detail, and a more exhaustive analysis of World Bank documentation and projects may provide additional useful insights.

79 The existence of a Resettlement Action Plan does not necessarily entail a case of resettlement – the objective of these plans is to identify populations affected by the project and the potential need for resettlement, and where needed, design the resettlement strategy and modalities. The plan may also determine that no resettlement will be required as part of a given project, in line with World Bank principles that involuntary resettlement should be avoided. World Bank guidelines state that when undertaken, involuntary resettlement should be conceived as an opportunity to improve the livelihoods of the affected people (see IFC, 2002).

80 Examples include projects for urban resilience and flood management (Benin, Nigeria), sustainable land management (Guinea, Mali), sustainable fisheries management (Mauritania, Sierra Leone), none of which envisage relocation as an adaptation or risk reduction strategy: resettlement is only considered as a result of land acquisition for construction works and other activities planned as part of the projects (see Annex F–Definitions and terminology). In some cases, such resettlement may also contribute to relocating people out of risk-prone areas, but because disaster risk reduction through relocation does not constitute the main project objective, such cases have not been included in this mapping.

81 Additional planned relocation may also be considered in the future as part of the ongoing World Bank West Africa Coastal Resilience (WACA) project – this is discussed further below.

82 Additional sources regarding this case could not be accessed, but their review may clarify whether relocation of these populations has eventually taken place.

83 www.wacaprogram.org/.

84 Countries currently covered by the programme are Benin, Côte d'Ivoire, Ghana, Guinea, Mauritania, Nigeria, Sao Tome and Principe, Senegal and Togo. Project documentation for Benin, Ghana, Guinea and Nigeria was not accessible or available, and its further review may help to identify additional plans for relocation.

85 Sao Tome and Principe is located in the Central African region. The seven ongoing cases of relocation in the country undertaken as part of this and previous World Bank projects are included in the global database.

in the 1980s (Mounkaila, 2002); and a more recent ongoing case of a fishing village on the Azizape island in Ghana (West Africa Democracy Radio, 2021). In Cameroon, individual (self-organized) retreat has been noted in the Cap Cameroun area in the face of coastal erosion and flooding, forcing the local population to relocate their houses and other assets inland (Mbevo Fendoung, 2019). Retreat of non-residential infrastructure has also been noted in Togo, where the coastal road had to be moved inland on several occasions (Ozer et al., 2017). Other strategies have included individual allocation of plots by the government to residents of neighbourhoods affected by coastal erosion in the Rufisque Department of Dakar, Senegal (IOM, 2020b).

Eviction of populations residing in areas exposed to riverine floods or coastal hazards has been another measure employed by authorities, documented in at least three countries. This practice, commonly referred to in the region as "*déguerpissement*", has usually concerned urban populations living in informal settlements in areas officially or unofficially designated as hazard-prone, such as river banks or waterfront areas. In a flood-related eviction case documented in Abidjan, Côte d'Ivoire in 2012, the government offered a monetary compensation to affected populations as an incentive and to help them rebuild elsewhere; however, the programme also envisaged forcible eviction of those who refused to leave (Gemenne et al., 2014). In other cases, populations have been evicted without receiving any compensation or housing assistance, as was the case in Benin and Nigeria (Ozer et al., 2013; Ajibade, 2019). In these two cases, evidence indicates that other motives may have been at play behind these evictions, as the evacuated land appears to have been repurposed for luxury property development projects. These examples demonstrate the risks of misuse of the disaster risk reduction narrative for alternative purposes, and the resulting human rights implications as such practices are likely to lead to greater precarity and vulnerability of the affected populations.

The Women Who Move Mountains: The new Laizo Village, Chin State, school is now held in a temporary structure after their community was voluntarily relocated to avoid further landslides. One year after Cyclone Komen shattered rural Myanmar, women in Chin State and Sagaing Region are taking a lead role in the efforts to rebuild and restore their villages. © IOM 2016/MAYCO NAING

Box 2. **Learning from history:** historical cases of coastal relocation in West Africa

Three additional cases of planned relocation as conceptualized in this study were identified in West Africa as part of the French, Spanish and Portuguese literature review: Diakhanor and Djifère in the Fatick region in Senegal (Touré Thiam and Crowley, 2014); villages East of Cotonou in the Littoral Department in Benin (Ozer et al., 2017), and Grand Lahou in Côte d'Ivoire (Alves et al., 2020). Since the information available regarding these cases was limited, they were not included in the analysis of detailed characteristics.[1] It is interesting to note, however, that all three cases were related to coastal erosion, and were among the earliest cases of planned relocation recorded in relation to coastal hazards and risks as part of this mapping (the relocation of Grand Lahou took place in 1973, while the relocations in Benin and Senegal occurred in the mid-to-late 1980s).

Two of these cases, in the Fatick region in Senegal and in the Littoral Department in Benin, concern small coastal villages, the population of which depended essentially on fishing. No information could be found regarding the decision-making process, implementation and outcomes of these two relocation cases. Further field research could be useful to gather insights into the long-term consequences of relocation for such communities in terms of vulnerability, resilience, livelihoods and cultural practices.

Grand Lahou is an example of a larger-scale operation which took place in a mixed context of urban and rural populations. The administrative services of the city, formerly the second port of Côte d'Ivoire, were relocated to the N'Zida site located on higher grounds 15 km inland, and the population was encouraged to move to the new site through incentives including subsidized housing and land plots (Alves et al., 2020; *JeuneAfrique*, 2018; Lombardo, 2017). The majority of the population moved, but communities dependent on fisheries preferred to stay on the old site, and continue to be exposed to coastal hazards. The literature identified for this case focuses on the situation of these vulnerable communities, and does not provide information on the outcomes for the relocated population. Further research into this case would be valuable to better understand the Grand-Lahou relocation process and outcomes, and identify useful lessons from this case, which could also serve to inform measures currently being explored to support the population remaining on the old site.[2]

1 In the case of Benin (Ozer et al., 2017), information was particularly limited. The wording used in the source points to a case of relocation rather than eviction or other forms of displacement; however, more research would be needed to identify the destination sites.

2 Different adaptation options for the Grand Lahou areas are currently being explored as part of the World Bank West Africa Coastal Areas (WACA) Management Programme. One of the options considers voluntary relocation of remaining coastal communities (Lombardo, 2017).

b. Legal and policy frameworks

A desk review completed as part of the IOM project "Implementing Global Policies on Environmental Migration and Disaster Displacement in West Africa" already provided an overview of main global and regional international policy frameworks related to human mobility, climate change and disasters of relevance for the West African region (IOM, 2020a).

While some of them explicitly refer to planned relocation and identify it as a potential tool for climate change adaptation and disaster risk reduction,[86] none of them are specifically designed to provide a comprehensive legal framework and to guide the implementation of planned relocation. At the national level, barring some broad references to relocation in national climate change adaptation policies and plans of a few countries in the region,[87] available evidence points to an overall absence of national frameworks directly concerning planned relocation in the West African countries reviewed here. Notable exceptions include Burkina Faso, where a disaster management policy includes provisions guiding relocation in the context of hazards and risks (see footnote 73, and Bronfort, 2017);

86 At the global level, the United Nations Framework Convention on Climate Change, the Sendai Framework for Disaster Risk Reduction and the Global Compact for Safe, Orderly and Regular Migration identify planned relocation as a potential tool for climate change adaptation and disaster risk reduction. Some strategies elaborated by the African Union, such as the Comprehensive Africa Agriculture Development Programme, consider some forms of relocation as part of long-term prevention (IOM, 2020a).

87 For example, Burkina Faso and Sao Tome and Principe–see Box 1.

Côte d'Ivoire, whose 2011 National DRR Strategy mentions a Displacement and Relocation Plan prepared to address flood-related risks in Abidjan (Yonetani, 2018); or Senegal, where relocation was envisaged as part of local social housing and urban planning policies in Dakar following 2005 floods (Schaer et al., 2018). As no comprehensive review of domestic policies in relation to this subject has been conducted in the region, further research may help to identify additional examples of national policies of relevance to planned relocation.

c. Implications and outlook

The two main types of hazards that have been driving relocation in West African countries in the past, namely riverine floods and coastal hazards, are expected to intensify with the effects of climate change in the coming years (Gemenne et al., 2017). Risks associated with sea-level rise, coastal erosion and coastal flooding, are of particularly concern given the high concentration of population and projected future urbanization trends in coastal areas in West Africa (Gemenne et al., 2017; Croitoru et al., 2019; IOM, 2020a).

These risks may lead communities and governments in the region to increasingly consider relocation as a risk reduction and adaptation measure, which, given the limited resources available to support such costly processes, may result in harmful practices (such as evictions). In this context, it is essential that effective frameworks and tools are made available to ensure that such practices are conducted only as a last resort, with minimal harms to affected populations and in full respect of their human rights and dignity. Given the social and economic costs of planned relocation, other disaster risk reduction and climate change adaptation measures may offer less costly and more sustainable solutions, for example through careful planning of urban growth, green infrastructures and nature-based solutions. For cases where relocation is prioritized, it is important that safeguards are put in place to ensure that the relocation processes are based on a thorough evaluation of socioeconomic and environmental impacts and due consideration of possible alternative measures based on reliable data and science, and that they do not serve other covert motives.

Many insightful lessons can be learned from the examples of practices identified here, including from past and ongoing cases of planned relocation in the region, other forms of retreat or land use practices applied in the region in the context of disaster risk management and adaptation, or from other fields which could inform policy development and practice in this area.

For example, further in-depth analysis of relocation initiatives conducted in the past and of their long-term outcomes, including in the framework of World Bank development projects, would allow to examine in more detail key design characteristics, policies and practices, challenges encountered, and to draw lessons from these findings that could be applied elsewhere. Additional research could also help to identify cases where relocation had been considered as a possible measure, but where in situ adaptation or risk reduction measures were eventually preferred: such cases could help to document alternative solutions to planned relocation and assess their outcomes.

Additionally, a comprehensive analysis of existing regional and national policy and legal frameworks relating to human mobility, disaster risk management, climate change adaptation, land use, poverty reduction and human rights could help to identify provisions specifically relevant to planned relocation and to design frameworks that could be applied at the regional and national levels. Guidance and tools available at the global level for planned relocation,[88] as well as examples of application of resettlement-related policies and guidelines in the context of World Bank development projects, could further inform national policy development and practice.

Existing international guidance and tools could also be adapted to the regional and national context and needs to support policymakers. These could include guidance on conducting assessments to identify possible interventions as an alternative to relocation, promoting in situ adaptation, risk reduction and urban planning solutions tailored to the regional and national context, as well as tools and resources to support such implementation (including funding sources). Guidance and information tools on alternatives to forced evictions

88 For example, Brookings Institution, Georgetown University and UNHCR, 2015; UNHCR, Georgetown University and IOM, 2017. See also Ferris, 2012 and Ferris and Weerasinghe, 2014.

would also be essential, given the reoccurrence of such practices in the region. Such tools could bring together documentation on relevant human rights law and other key protection frameworks, and promote development-oriented and human rights-based solutions to address risks. They could also eventually be applied in other contexts unrelated to disasters, such as broader land use and development purposes.

Existing global and regional policies, standards and guidance provide a strong reference framework, which, complemented with lessons learned from practices identified here and in the development, disaster risk reduction, climate change adaptation, and urban planning fields, could be translated into more effective, sustainable national and local solutions to protect populations in the face of hazards and climate change risks in West Africa.

Box 3. Towards a research agenda on planned relocation in West Africa

As part of a Virtual Workshop Series on "Developing a Research and Policy Agenda for Addressing Displacement and Migration in the Context of Disasters and Climate Change in Africa" conducted by the Kaldor Centre for International Refugee Law, PDD, IOM, UNHCR, IGAD, the University of Pretoria, the University of Nairobi, GIZ and AAUN from April to July 2021,[1] one of the Thematic Working Groups focuses on Internally Displaced People and Planned Relocation, providing an opportunity to design a research agenda for Africa specifically on planned relocation.

Several issues and knowledge gaps were identified in the present study, which could inform the development of a subregional research agenda on planned relocation in West Africa. For example, more advanced regional and national research should be encouraged to:

- Identify relevant regional and national legal and policy frameworks and specific provisions across policy sectors that could help to design national frameworks;
- Develop indicators to measure the impacts of planned relocation in line with sustainable development, human security and human rights goals and protection standards;
- Identify and monitor ongoing planned relocation processes and those currently under consideration, with particular focus on monitoring the needs, human rights and human security of affected populations;
- Understand long-term social, economic and vulnerability outcomes of past relocation initiatives;
- Identify examples of effective practices and measures undertaken as part of past relocation processes;
- Identify context-specific alternatives to relocation based on latest scientific data, technical guidance and examples of effective practices for adaptation and disaster risk reduction;
- Record and monitor more systematically cases of forced evictions in the context of hazards and risks, and develop guidance for alternative solutions.

Regional and national research institutions and actors could be further supported through the development of harmonized guidance for qualitative and quantitative research on planned relocation; capacity-building programmes; strengthened regional research networks, databases and resources; and mapping of funding opportunities.

1 For more information, see: www.kaldorcentre.unsw.edu.au/Virtual_workshop_series-all-sessions.

4

CONCLUSIONS AND RECOMMENDATIONS

This research led by the International Organization for Migration sought to complement the first study of this series commissioned by the Platform on Disaster Displacement and the Kaldor Centre at UNSW (Bower and Weerasinghe, 2021) and to further contribute to building a preliminary evidence base on planned relocation in the context of hazards, disasters and climate change globally. The additional cases identified here helped to confirm and complement some of the main findings of that study, improve the overall geographical balance of the global database, and add to the evidence base on planned relocation practices in West Africa through a more detailed analysis of cases in this region.

The 101 new cases identified in the French, Spanish and Portuguese-language literature review constitute an important addition to the 308 planned relocation cases documented in English-language academic and grey literature. With these additional results, the global database of planned relocation cases now includes 409 cases occurring in 82 countries and territories.[89] As noted by Bower and Weerasinghe (2021), this may still represent only a fraction of planned relocation processes globally, many of which may be under- or undocumented, under-researched, or published about in other languages or in other types of (non-academic and non-institutional) documentation.

Further research efforts are needed to continue strengthening this initial evidence base, and to monitor the progress of ongoing cases. Additional resources to be explored may include grey and scholarly literature published in other languages; national and international institutional project documents which are not available publicly; local governmental or non-governmental documents and reports published in local languages; and media reports and articles. Some cases that have been excluded from this study for lack of evidence allowing to determine whether they meet the necessary criteria for inclusion or for other methodological reasons[90] would merit further research (for example, through consultations

89 This includes one British overseas territory and three French overseas territories.

90 For example, additional cases documented in English-language literature identified during the review of French, Spanish and Portuguese-language literature.

with the authors of the sources); whether they are eventually confirmed as cases of planned relocation or not, they could either way provide valuable insights into other types of relocation and mobility practices, which could also inform planned relocation and adaptation policy and practice. Finally, field research and monitoring could be an important means to obtain more quantitative and qualitative data on ongoing relocation processes, including the numbers of people affected, and the longer-term impacts of relocation on livelihoods, human rights, well-being, vulnerability and exposure to hazards and risks, including through longitudinal research.

As noted by Bower and Weerasinghe (2021), a comprehensive, up-to-date database would allow a more systematic analysis of a variety of parameters involved in planned relocation processes that could help identify and better understand associated challenges, determine clearer criteria for assessing outcomes, and identify possible effective practices, which could in turn guide future policy development and practice. Bower and Weerasinghe provide an extensive list of possible policy-relevant research questions to explore further using this preliminary global mapping exercise as a basis (2021: p. 42–49).

Some of the main knowledge gaps related to the cases identified in both studies concern national legal and policy frameworks applied; approaches to formal assessments to inform the relocation planning process, and their main elements and conclusions; participation mechanisms used to involve communities (and whether and how specific considerations linked to gender, age, health, ethnicity, religion or income are taken into account); role and interaction of multiple environmental, social, economic and political drivers and motives. More advanced research could help to understand better such aspects. Other aspects to be investigated further could include perceived outcomes identified through household satisfaction surveys presented in the literature; marginalization and socioeconomic inequalities within planned relocation processes as well as protection gaps; examples of proactive measures taken with the objective to improve livelihoods and resilience as part of relocation processes; examples of assessments conducted in preparation of relocation; and examples of evaluation of past planned relocation initiatives and their findings. As seen from the analysis of practices in West Africa, additional lessons could also be drawn from other examples of practices that did not meet the criteria for this mapping, such as relocations conducted in the context of development projects, individual relocations as well as evictions, which can help to identify some protection issues, policy and legislation gaps as well as some existing standards and guidance in place (for example, for development-related relocation) that could be applicable to planned relocation in the context of hazards, disasters and climate change.

Complementary research efforts could also support comparative analyses of policy and practice within and across specific regions. For example, what trends and lessons learned could be extracted from the significant number of cases found in South and Central America and the Caribbean? How different are planned relocation practices between regions, and is it possible to identify specific trends and similarities? How are European countries dealing with similar risks, and what could be learned from their approaches and strategies (for example, what lessons can be learned from the pilot assessments of feasibility of relocation conducted in France)? Do practices differ between low, middle and high-income countries, and how does the broader political and economic context influence the design and outcomes of planned relocation processes? For example, a more detailed comparative analysis of practices in small island developing States and in overseas territories governed by high-income countries could provide interesting insights into these questions, as they concern territories with similar geographical characteristics and constraints but different political and economic profiles. Such analyses could help identify region and context-specific challenges and possible ways to address them.

Another new area of research for more recent cases of planned relocation could focus on whether and how existing international legal, policy and operational guidance has been taken into account in the planning and design of relocation initiatives. Cases where it has been applied could provide useful lessons on the relevance and applicability of such guidance and tools. Conversely, it would be useful to identify main barriers to the application of such guidance, as well as possible enabling factors and ways to address related gaps, which could in turn help to improve guidance and

tools if necessary. Procedures behind planned relocation decision-making and planning could be investigated further, to identify opportunities to promote international guidance, or to adapt it to context-specific needs. This could help to assess the need and relevance of developing region- or country-specific guidance documents to accompany future decision-making on planned relocation.

Several ongoing research projects commissioned by GIZ and the Andrew & Renata Kaldor Centre for International Refugee Law will complement this series of studies and will contribute to addressing some of these questions. In addition to such international research efforts, it is important that regional and national-level research capacity on planned relocation is strengthened. This could be done through the involvement of relevant national and regional research institutions, the development of common research agendas at regional levels, the elaboration of research guidance in order to harmonize approaches and facilitate comparative analysis, and through capacity-building and funding support, particularly to support empirical research to identify and document other cases of planned relocation and monitor ongoing ones.

As governments are increasingly becoming concerned with the effects of climate change and seeking solutions to protect people living in areas exposed to hazards and risks, efforts to address knowledge gaps and strengthen evidence on planned relocation will be essential to guide policy development and practice. Such efforts are necessary to ensure that such practices are conducted with minimal harms to people, in full respect of their human rights and dignity, and only after careful consideration of all possible alternative adaptation and risk reduction solutions.

Many Filipino families had their homes and livelihoods destroyed as Super Typhoon Rolly and three other typhoons pounded the region within a span of three weeks in 2020. © IOM 2021/Andrea EMPAMANO

This image is taken on a dry lake not far from Ouagadougou in the rural commune of Saaba, Burkina Faso. © Unsplash 2020/Adam YODA

ANNEXES

ANNEX A | CONTEXT CHARACTERISTICS

What is the country of the site of origin in the planned relocation case?	What is the exact location of the site of origin in the planned relocation case?	What is the location of the destination settlement site in the planned relocation case?	Spatial pattern	Which natural hazard(s) or adverse effect(s) of climate change was the planned relocation initiated in anticipation/ reaction to?	Was the initiation decision made post sudden-onset hazard related displacement?
Burkina Faso	Boulmiougou, Bogodogo, Baskuy, Sig Noghin and Nongr Maasom neighbourhoods, Ouagadougou, Centre Region	Yagma, Ouagadougou, Centre Region	Unknown	Flood	Yes
Cabo Verde	Chã das Caldeiras, Ilha do Fogo	Achada Furna, Monte Grande, Mosteiros and São Filipe villages, Ilha do Fogo	C	Volcanic eruption	Yes
Niger	Zarmagandey, Lamordé, Nogaré, Karadjé, Kennedy, Kirkissoye neighbourhoods in Niamey	Séno, 5th arrondissement in Niamey	B	Riverine flood	Yes
Cameroon	Nyos Village (multiple), Northwest Region	Menchum Division, Ukpwa Waindo	B	Limnic eruption	Yes
Ghana	Adizdo, Kedzi and Vodza, Volta Region	1.5k away	Unknown (multiple As)	Coastal flood	Yes
Senegal	Pikine Department (multiple), Dakar	Cité Jaxaay, Dakar	B	Riverine flood	Yes
	Guet N'Dar, N'Dar Toute, and Goxu Mbathie neigbourhoods in Langue de Barbarie, Saint-Louis, Saint-Louis Region	Diougop, Gandon commune	Unknown	Coastal erosion, coastal floods	Yes

ANNEX A *continuation*

	What is the approximate physical distance (in km) between the site of origin and the site of destination?	In approximately what year was the need for planned relocation first identified?	In approximately what year was the physical relocation to the settlement site completed for the majority of households?	Approximately how many households (people) have relocated or are identified for relocation?	Does the relocating community identify as part of an indigenous tribe or community?	Does the relocating community identify as rural or urban?
Burkina Faso	25 km to Bogodogo, 20 km to Nongr Maasom, 19 km to Baskuy, 16 km to Boulmiougou and 9 km to Sig Noghin	2009	2010	(13 000 people)	No	Urban
Cabo Verde	43 km to Mosteiros, 35 km to São Filipe, 21 km to Monte Grande and 15 km to Achada Furna	2014	2014	(Total 948 people: 416 people to Achada Furna, 271 people to Monte Grande, 137 people to Mosteiros and 124 people to São Filipe)	No	Rural
Niger	3 km to Zarmagandey, 2.5 km to Lamordé, 2.5 km to Nogaré, 1.5 km to Karadjé, 1.5 km to Kennedy and 1 km to Kirkissoye	2012	2012	(4 963 people)	No	Urban
Cameroon	35 km	1986	1987	Unclear (at least 650 residents at time of research)	No	Rural
Ghana	1.5 km	1999	Ongoing, between 2003 and 2015	1 200	Partially	Rural
Senegal	20 km to Pikine	2005	Unclear	Unclear (4 000 houses built)	No	Urban
	12–13.5 km	2018	Ongoing	(At least 5 000 people to be relocated)	No	Urban

ANNEX B | DESIGN CHARACTERISTICS

What is the country of the site of origin in the planned relocation case?	What is the exact location of the site of origin in the planned relocation case?	Which actor(s) initiated the planned relocation?	Which actor(s) supported the planned relocation?	Is there evidence of at least one formal assessment of the 1) location of origin to determine the need for the planned relocation; 2) settlement site to determine suitability for relocation?	Is there evidence to suggest that affected communities participated during the relocation process?	Is there a domestic legal or policy framework applicable or relevant to relocation?
Burkina Faso	Boulmiougou, Bogodogo, Baskuy, Sig Noghin and Nongr Maasom neighbourhoods, Ouagadougou, Centre Region	Government (National)	Government (National); NGOs, INGOs	1. No 2. No	No	Unclear
Cabo Verde	Chã das Caldeiras, Ilha do Fogo	Government (National)	Government (National, subnational, local); NGO	1. No 2. No	No	Unclear
Niger	Zarmagandey, Lamordé, Nogaré, Karadjé, Kennedy, Kirkissoye neighbourhoods in Niamey	Government (Local)	Government (Local); Intergovernmental Organizations; Development Bank; private sector	1. No 2. No	No	No
Cameroon	Nyos Village (multiple), Northwest Region	Government	Government; NGOs	1. No 2. No	No	Unclear
Ghana	Adizdo, Kedzi and Vodza, Volta Region	Government (National)	Government (National)	1. No 2. No	Yes	No
Senegal	Pikine Department (multiple), Dakar	Government (National)	Government (National)	1. No 2. No	No	Unclear
	Guet N'Dar, N'Dar Toute, and Goxu Mbathie neigbourhoods in Langue de Barbarie, Saint-Louis, Saint-Louis Region	Government (National, Local)	Government (National, Local); Development Bank	1. Yes 2. Yes	Yes	Yes

ANNEX B *continuation*

	Is there evidence to suggest that similar livelihood opportunities exist in the site of origin and the site of destination?	What challenges have been identified during the relocation process or in the settlement site?
Burkina Faso	No. Limited economic opportunities provided; lack of access to basic services.	Conflict between relocated people and host community over land issues; distance from city centre for work and entertainment; limited economic opportunities in situ; no access to drinking water, electricity and medical facilities; insufficient skills, funds or material to construct housing. Most people sold their plot to return to the city.
Cabo Verde	No. Agricultural work only possible near original site. No alternative livelihoods provided.	Distance to livelihoods (fields, livestock); lack of alternative sources of income; socioeconomic challenges and increased inequality; family/community separation; precarious housing; physical insecurity. Many community members returned to original village.
Niger	No. Lack of economic opportunities and access to basic services. Many people had to return to original neighbourhoods for work.	Job loss; access to water, transport and housing; disrupted social networks. Land plots smaller than in the original location, and not taking household size into account. Government support did not last. Many people returned to original location.
Cameroon	No. Land less fertile, no access to natural resources and traditional livelihoods, limited alternative job opportunities, more precarious housing and no access to medical facilities.	Access to land, natural resources and traditional livelihoods; limited alternative economic opportunities; sub-standard housing conditions; cultural losses; lack of access to health services; disrupted social networks; increased crime.
Ghana	No	Loss of family and cultural ties; some dissatisfaction with size of new housing and land; limited job opportunities leading to unemployment, negative psychological effects; insufficient funding (only part of population relocated and expectations on facilities not met); access to water; perceived unequal treatment and compensations; disruption of religious practices; poor communication by government.
Senegal	No	Poor technical conception, site exposed to floods, poor sanitation and drainage system; corruption issues.
	Yes. A livelihood restoration strategy has been developed and will support affected people. Host community will also benefit from investments and infrastructure.	Potential cultural tensions with host population.

ANNEX C | METHODS EMPLOYED BY PRIMARY SOURCE FOR ALL CASES

What is the country of the site of origin in the planned relocation case?	What is the exact location of the site of origin in the planned relocation case?	Data collection methods employed	Type of stakeholders interviewed	Number of interviews
Burkina Faso	Boulmiougou, Bogodogo, Baskuy, Sig Noghin and Nongr Maasom neighbourhoods, Ouagadougou, Centre Region	Empirical observations, semi-structured interviews, surveys	Community members, government officials, NGO and academic experts	36 Interviews total 14 with community members, 12 with Government, 4 with NGOs/INGOs, 6 with academic experts/ students/consultants
Cabo Verde	Chã das Caldeiras, Ilha do Fogo	Semi-structured interviews, surveys, video material	Community members, local government officials	Total Unknown 128 Survey respondents; Unknown interviews (at least 2 community members)
Niger	Zarmagandey, Lamordé, Nogaré, Karadjé, Kennedy, Kirkissoye neighbourhoods in Niamey	Interviews, surveys	Community members and local government	212 Interviews total 20 Interviews (local government officials), 192 Survey respondents
Cameroon	Nyos Village (multiple), Northwest Region	Semi structured interviews, standardized survey, direct and participant observation, document analysis. Analysis of outcomes informed by Cernea's IRR[91] model.	Community members only	125 Interviews total 25 interviews with community members, 100 survey respondents
Ghana	Adizdo, Kedzi and Vodza, Volta Region	Interviews, document analysis	Community members only	17 Interviews total
Senegal	Pikine Department (multiple), Dakar	Semi-structured interviews, focus group discussions, secondary document analysis	Community members, Government (National, local), NGOs, private sector	"Total Unknown 113 interviews (Government, NGOs, community members, private sector), 7 focus group discussions (community members)"
	Guet N'Dar, N'Dar Toute, and Goxu Mbathie neigbourhoods in Langue de Barbarie, Saint-Louis, Saint-Louis Region	Document analysis, focus group discussions, household survey	Community members and Government	Unknown

91 www.sciencedirect.com/science/article/abs/pii/S0305750X97000545.

ANNEX C *continuation*

	Date of field work	Full citation of primary source, secondary source (as applicable)
Burkina Faso	2010	Lassailly-Jacob, V. (2015). Inondations de 2009 et 2010 au Burkina Faso: Gestion, perception et mobilités induites. In C. Cournil (Ed.), Mobilité humaine et environnement: Du global au local (pp. 225–244). Éditions Quæ. Bronfort, S. (2017). Les stratégies d'adaptation face au risque d'inondation dans les zones d'habitats spontanés de Ouagadougou, Burkina Faso. [Unpublished master's thesis]. University of Liège.
Cabo Verde	2010–2016	Chouraqui, F. and P. Texier (2016). Pour un renforcement des capacités de gestion des crises volcaniques au Cap-Vert. Dynamiques environnementales, 37.
Niger	2016–2017	Alou, A. A., Lutoff, C., and Mounkaila, H. (2019). Relocalisation préventive suite à la crue de Niamey 2012: vulnérabilités socio-économiques émergentes et retour en zone inondable. Cybergeo: European Journal of Geography. Aménagement, Urbanisme, document 911. Oumarou, H. (2017). La gestion humanitaire des inondations dans une commune de Niamey. Report. International Institute for Environment and Development.
Cameroon	2007	Ngenyam Bang, H. and Few, R. (2012). Social risks and challenges in post-disaster resettlement: the case of Lake Nyos, Cameroon. Journal of Risk Research, 15(9), 1141–1157. Buchenrieder, G., Mack, C., and Balgah, A. R. (2017). Human Security and the Relocation of Internally Displaced Environmental Refugees in Cameroon. Refugee Survey Quarterly, 36(3), 20–47.
Ghana	2016	Salifu, A. M. A. (2016). Relocation Based on Slow-Onset Climate-Induced Environmental Change in Keta, Ghana. [Unpublished doctoral dissertation]. Walden University. Danquah, J. A., Attippoe, J. A., and Ankrah, J. S. (2014). Assessment of residential satisfaction in the resettlement towns of the Keta basin in Ghana. International Journal Civil Engineering, Construction and Estate Management, 2(3), 26–45. Afram, S. O., Kwofie, T. E., and Attipoe, J. (2015). The Influence of Beneficiary Participation in Resettlement Schemes in Ghana: A Case Study of the Keta Basin Sea Defence Resettlement Project. [Conference paper]. 4th International Conference on Infrastructure Development in Africa, Kumasi, Ghana.
Senegal	2012–2013	Schaer, C., Thiam, M., and Nygaard, Ivan. (2018). Flood Management in Urban Senegal: An Actor-Oriented Perspective on National and Transnational Adaptation Interventions. Climate and Development, 10(3), 243–258. GRDR Migration-Citoyenneté-Développement. (2014). La dimension locale de la dialectique Migration et développement. Le cas France-Sénégal. Agence Française de Développement.
	2019	Senegal. (2020). Senegal - Saint-Louis Emergency Recovery and Resilience Project : Resettlement Plan (Vol. 3) : Plan d'Action de Réinstallation de la Langue Barbarie (French). World Bank Group.

ANNEX D | CODEBOOK QUESTIONS, ANSWERS AND METHODOLOGICAL NOTES[92]

Type	Question	Answer Code	Caveats and notes from coding
Context characteristics (see Annex A)	What is the country of the site of origin in the planned relocation case?	Country	
	What is the province/state of the site of origin in the planned relocation case?	Province/State	
	What is the exact location of the site of origin in the planned relocation case?	Town/neighbourhood or community name	
	What is the location of the destination settlement site in the planned relocation case?	Community or village name	
	Which hydrometeorological, geophysical/geological, or environmental hazard(s) is the planned relocation initiated in anticipation/reaction to?	All listed in classifications of UNDRR terminology, see Annex F on definitions	
	What is the approximate physical distance (in km) between the site of origin and the site of destination?	Number of kilometres	As indicated in the primary source, secondary source, or as determined from Google Earth
	In approximately what year was the need for planned relocation first identified?	Year	If not explicitly stated, the year of the associated hazard
	In approximately what year was the physical relocation to the settlement site completed for the majority of households?	Year	
	Is the relocation ongoing or completed (at time of publication)?	Completed or Ongoing	
	Approximately how many households (people) have relocated, or are identified for relocation?	Number of households (Number of people)	For cases that are ongoing, the number in this column represents the number identified for relocation. Even if some households have already moved, the number of households identified for relocation is the number reported.
	Does the relocating community identify as part of an indigenous tribe or community?	Yes or No	Indigeneity or native tribes are more common in countries like the United States (that have been colonized); groups that are local to specific places may not identify as indigenous in other parts of the world
	Does the relocating community identify as rural or urban?	Rural or Urban	
	Was the planned relocation initiated after displacement?	Yes, No	

92 Based on and reproduced from Bower and Weerasinghe (2021: Annex D).

ANNEX D *continuation*

Type	Question	Answer Code	Caveats and Notes from coding
Relocation Design Characteristics (see Annex B)	Which actor(s) initiated the planned relocation?	Community member, government, intergovernmental, non-governmental (List as many as appropriate); If government, identify level(s)	Government levels are coded as follows: National (includes Federal, Military) Subnational (includes State, Provincial, Departmental and Regional depending on country approach) Local (city, town or village) Could not consistently identify sectors of government actors
	Which actor(s) supported the planned relocation, including through funding?	Community member, government, intergovernmental, non-governmental (List as many as appropriate); If government, identify level(s)	Government levels are coded as follows: National (includes Federal, Military) Subnational (includes State, Provincial, Departmental and Regional depending on country approach) Local (city, town or village) Other actors coded as follows: NGO Donor Government INGO–(e.g. IFRC) Intergovernmental Organization (e.g. UN actors) Development Bank Private Sector Could not consistently identify sectors of government actors
	Is there evidence of at least one formal assessment of the 1) location of origin to determine the need for the planned relocation; 2) settlement site to determine suitability for relocation?	Yes or No	Interpreted as formal assessment, all cases have community assessment of some sort
	Is there evidence to suggest that affected communities participated during the relocation process?	Yes or No	
	Is there a domestic legal or policy framework applicable or relevant to relocation?	Yes, No, Unclear	Search terms in papers: law, polic*, legal, legislat*, regulat*, and act, when possible to search. Put unclear when the literature does not mention anything.
	Is there evidence to suggest that similar livelihood opportunities exist in the site of origin and the site of destination?	Yes or No; Any skills training in settlement site	
	What challenges have been identified during the relocation process or in the settlement site?	Narrative	
Methodology (see Annex C)	Key Source	Source Citation in APA format	
	Data Collection Methods Employed by Key Source	For interviews–note whether focus group or individual, note whether structured/standardized survey, semi-structured, or unstructured	

ANNEX E | REGIONAL GROUPS OF COUNTRIES[93]

The cases included in the global database fall into the following regions and subregions, according to the World Bank Group. Only countries for which there are identified planned relocation cases are listed here. This list includes the combined results of the present IOM study and of the study by Bower and Weerasinghe (2021). Countries identified in the latter are indicated in normal font; those identified as part of the IOM-commissioned study are listed in **bold**; countries for which cases were found in both mapping exercises are underlined.

Continental coverage	Subregion	Country/Territory/Region
Africa	North Africa	**Algeria**
Africa	Sub-Saharan Africa, including: East Africa	Ethiopia, Rwanda, Somalia, Uganda
	Central Africa	Cameroon, **Democratic Republic of the Congo, Sao Tome and Principe**
	West Africa	**Benin**, **Burkina Faso**, **Cabo Verde**, **Côte d'Ivoire**, Ghana, **the Niger,** Senegal
	Southern Africa	Botswana, Malawi, Mozambique, Namibia, Zimbabwe
Americas	Central America	Belize, **Costa Rica**, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama
Americas	Caribbean	Antigua and Barbuda, Bahamas, Dominica, Dominican Republic, **Guadeloupe (French overseas department)**, Haiti, Jamaica, **Martinique (French overseas collectivity)**, Montserrat (Territory of the United Kingdom), **Saint Kitts and Nevis**
Americas	North America	**Canada**, United States of America
Americas	South America	Argentina, **Bolivia (Plurinational State of)**, Brazil, Chile, Colombia, Ecuador, **Peru**, Uruguay, **Venezuela (Bolivarian Republic of)**
Asia	Central Asia	Tajikistan
Asia	East Asia	China, Japan
Asia	South Asia	Bangladesh, India, Maldives, Nepal, Pakistan, Sri Lanka
Asia	South-East Asia	Indonesia, Malaysia, Myanmar, Philippines, Thailand, Viet Nam
Europe		France, **Georgia**, Germany, Italy, United Kingdom, Turkey
Middle East		Islamic Republic of Iran
Pacific		Australia, Fiji, Kiribati, New Zealand, Papua New Guinea, Samoa, Solomon Islands, Vanuatu, **Wallis and Futuna (French overseas collectivity)**

93 Adapted from Bower and Weerasinghe (2021: Annex E).

ANNEX F | DEFINITIONS AND TERMINOLOGY

Relocation-related terms

Buy-outs are a form of property acquisition in which houses and lots are purchased from willing sellers with the land restored to natural open space in perpetuity. (UNHCR, Georgetown University and IOM, 2017)

Involuntary Resettlement refers to both physical displacement (relocation or loss of shelter) and to economic displacement (loss of assets or access to assets that leads to loss of income sources or means of livelihood) as a result of project-related land acquisition. Resettlement is considered involuntary when affected individuals or communities do not have the right to refuse land acquisition that results in displacement. This occurs in cases of: (i) lawful expropriation or restrictions on land use based on eminent domain; and ii) negotiated settlements in which the buyer can resort to expropriation or impose legal restrictions on land use if negotiations with the seller fail. (IFC, 2006)

Managed Retreat is the strategic relocation of structures or abandonment of land to manage natural hazard risk. (Hino et al., 2017 cited in Bower and Weerasinghe, 2021)

In this study, **Planned Relocation** is described as: the planned, permanent movement of a group of people from identifiable origin(s) to identifiable destination(s), predominantly in association with one or more hydrometeorological, geophysical/ geological, or environmental hazard(s). (Bower and Weerasinghe, 2021)[94]

Hazard definitions[95]

Hazard A process, phenomenon or human activity that may cause loss of life, injury or other health impacts, property damage, social and economic disruption or environmental degradation.

Multi-hazard means (1) the selection of multiple major hazards that the country faces, and (2) the specific contexts where hazardous events may occur simultaneously, cascading or cumulatively over time, and taking into account the potential interrelated effects.

Hazards include (as mentioned in the Sendai Framework for Disaster Risk Reduction 2015-2030, and listed in alphabetical order) biological, environmental, geological, hydrometeorological and technological processes and phenomena. This report focuses on hazards that are geologic or geophysical, hydrometeorological or environmental.

Geological or geophysical hazards originate from internal earth processes. Examples are earthquakes, volcanic activity and emissions, and related geophysical processes such as mass movements, landslides, rockslides, surface collapses and debris or mud flows. Hydrometeorological factors are important contributors to some of these processes. Tsunamis are difficult to categorize: although they are triggered by undersea earthquakes and other geological events, they essentially become an oceanic process that is manifested as a coastal water-related hazard.

94 Other existing definitions are presented in Bower and Weerasinghe (2021), section 4.

95 Definitions based on UNGA, 2016. Reproduced from Bower and Weerasinghe (2021). For further details on these definitions and the specific hazards under each hazard type, refer to relevant annexes to the UNDRR/ISC Sendai Hazard Definition and Classification Review Technical Report (2020): www.undrr.org/publication/hazard-definition-and-classification-review.

Hydrometeorological hazards are of atmospheric, hydrological or oceanographic origin. Examples are tropical cyclones (also known as typhoons and hurricanes); floods, including flash floods; drought; heatwaves and cold spells; and coastal storm surges. Hydrometeorological conditions may also be a factor in other hazards such as landslides, wildland fires, locust plagues, epidemics and in the transport and dispersal of toxic substances and volcanic eruption material.

Environmental hazards may include chemical, natural and biological hazards. They can be created by environmental degradation or physical or chemical pollution in the air, water and soil. However, many of the processes and phenomena that fall into this category may be termed drivers of hazard and risk rather than hazards in themselves, such as soil degradation, deforestation, loss of biodiversity, salinization and sea-level rise. [In this report, erosion and permafrost loss are considered environmental hazards].

Risk definitions

UNDRR defines **disaster risk** as the potential loss of life, injury, or destroyed or damaged assets which could occur to a system, society or a community in a specific period of time, determined probabilistically as a function of hazard, exposure, vulnerability and capacity. (UNGA, 2016)

In the context of climate change, IPCC defines **risk** as the potential for adverse consequences for human or ecological systems, recognizing the diversity of values and objectives associated with such systems. In the context of climate change, risks can arise from potential **impacts of** climate change as well as human **responses to** climate change. Relevant adverse consequences include those on lives, livelihoods, health and well-being, economic, social and cultural assets and investments, infrastructure, services (including ecosystem services), ecosystems and species. (IPCC, 2020)

Many Filipino families had their homes and livelihoods destroyed as Super Typhoon Rolly and three other typhoons pounded the region within a span of three weeks in 2020. © IOM 2021/Andrea EMPAMANO

ANNEX G | SEARCH TERMS USED IN FRENCH, SPANISH AND PORTUGUESE

The following search terms were used to identify literature on planned relocation in the context of hazards, disasters and climate change in French, Spanish and Portuguese languages. The choice of terms was based on the English search terms selected for the study by Bower and Weerasinghe (2021) and their most recurrent official translations in key global policy and institutional documents. Reference documents included UNFCCC Decisions including the Cancun Adaptation Framework and the Paris Agreement (UNFCCC, 2010; UNFCCC, 2018); IPCC reports (IPCC, 2019); the Sendai Framework for Disaster Risk Reduction (UNDRR, 2015); the Global Compact for Safe, Orderly and Regular Migration (UNGA, 2018a); the Toolbox on Planned Relocation (UNHCR, Georgetown University and IOM, 2017); the Nansen Initiative Protection Agenda (Nansen Initiative, 2015); and the Migration, Environment and Climate Change: Evidence for Policy (MECLEP) Glossary (IOM, 2014). In the absence of official translation of these documents in Portuguese, the choice of terms was made in consultation with experts from RESAMA, and based on unofficial translations of the IPCC report (IPCC, 2019).

Movement	Main terms	Optional
English*	(Planned) relocation; Managed retreat; Resettlement	
French	**Réinstallation**** (planifiée, ordonnée, organisée); relocalisation (planifiée, ordonnée, organisée); réimplantation	Déplacement/déplacé(e)s; **relogement**/relogé(e)s; repli; recul; retrait stratégique
Spanish	**Reubicación;** relocalización; reasentamiento; traslado (planificada/o)	Repliegue; abandono organizado
Portuguese	Realocação/relocalização; **reassentamento**; realojamento; deslocalização; reinstalação; remoção	Transferencia; retiro; recuo

Context	Main terms	Optional
English*	Disaster; Hazard; Climate; Environment	
French	Catastrophe; aléa naturel; risque naturel; changement(s) climatique(s)/environnemental(ux)	Désastres
Spanish	Desastre; peligros, amenazas, riesgos naturales; cambio climático; cambios (medio)ambientales	Catástrofes
Portuguese	Desastre; riscos/ameaças naturais; alterações/mudanças climáticas/do clima; mudança ambiental; ameaça do clima/natural	Catástrofe; Perigos naturais

* English search terms used in Bower and Weerasinghe (2021).
** Terms most commonly used to designate relocation in the identified literature are marked in bold.

ANNEX H | LIST OF EXPERTS CONSULTED FOR CASE IDENTIFICATION

At the International Organization for Migration

Hind Aïssaoui Bennani, Regional Office for West and Central Africa
Marianna Bertelle, IOM Côte d'Ivoire
Christelle Bredou, IOM Côte d'Ivoire
Francesca Bucaletti, IOM Côte d'Ivoire
Pablo Escribano, Regional Office for Central America, North America and the Caribbean
Roger Charles Evina, IOM Burkina Faso
Lorenzo Guadagno, IOM Headquarters
Orlane Mathieu-Maincent, IOM Niger
Briana Mawby, Regional Office for Central America, North America and the Caribbean
Daniel Silva y Poveda, IOM Madagascar
Ibrahima Thiam, IOM Senegal
Ethan Way, IOM Ghana
Bénédicte Emmanuelle Yameogo, IOM Burkina Faso

At other institutions

Maria Elena Acosta Maldonado, FLACSO
Jonas Bergmann, Potsdam Institute for Climate Impact Research (PIK)
Julia Blocher, Potsdam Institute for Climate Impact Research (PIK)
Loïc Brüning, Institute of Geography of the University of Neuchâtel (CliMig project)
Elena Correa, World Bank
Mamadou Dimé, University Gaston Berger de Saint-Louis
Erika Pires Ramos, RESAMA
Análida Rincón Patiño, National University of Colombia

Many Filipino families had their homes and livelihoods destroyed as Super Typhoon Rolly and three other typhoons pounded the region within a span of three weeks in 2020. © IOM 2021/Andrea EMPAMANO

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ONLINE RESOURCES

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IOM Environmental Migration Portal:
https://environmentalmigration.iom.int

Platform on Disaster Displacement website:
https://disasterdisplacement.org

Andrew & Renata Kaldor Centre for International Refugee Law:
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University of Neuchâtel's CLIMIG Database:
https://climig.com

WIM Excom Task Force on Displacement:
https://unfccc.int/wim-excom/sub-groups/TFD

World Bank Documents and Reports Collection:
https://documents.worldbank.org/en/publication/documents-reports

World Bank West Africa Coastal Resilience (WACA) Project: www.wacaprogram.org/

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