

Human mobility in the context of climate-related loss and damage

Policy Brief

Key messages

- Human mobility can be a **consequence** but also a **driver** of loss and damage
- The **current climate finance** landscape is **unfit to address** varying forms of **human mobility** and largely overlooks movement related to slow-onset events as well as non-economic loss and damage
- Many climate-vulnerable countries **lack** the financial and capacitive **resources** to develop **comprehensive national frameworks** to deal with loss and damage and related mobility, including **reliable data** to inform these
- Even where advanced frameworks are in place, **operationalisation** is **obstructed by lack of funding**
- **Socioeconomic vulnerabilities** fasten the speed at which **limits to adaptation** are reached, increasing the likelihood of **maladaptive mobility** outcomes and reversing past development gains
- GP HMCCC partner countries call for **needs-based**, tangible and easily accessible funding focused on pre-emptive interventions and resilience-building
- **Development cooperation** should contribute to the establishment of **nationally owned** information systems, policy frameworks and context-specific institutional capacity

Context of the Global Programme on Human Mobility in the Context of Climate Change

Human mobility in the context of climate change (HM-CCC) refers to the movement of people as a result of or in preparation for the consequences of climate change. Amidst rapidly progressing climate change, the detrimental effects of extreme weather events and slow-onset events (SOEs, e.g., sea level rise) will continue to exert substantial influence on all forms of human mobility and further affect vulnerable populations. In many circumstances, these processes are projected to intensify existing migration trends. Other instances of climate impacts may simultaneously see immobility on the rise, potentially resulting in trapped populations for which mobility as a key livelihood and risk management strategy is no longer available. Mounting evidence points towards increasing soft barriers to climate change adaptation, referring to circumstances in which mainly socioeconomic vulnerabilities (e.g., poverty) prevent successful coping with climate risks. Similarly increasing hard barriers imply the practical infeasibility to avoid risks and constitute unavoidable climate impacts (e.g., sea level rise) (Mechler et al. 2020). In the absence of employable adaptation measures, climate-related loss and damage (L&D) is likely to occur, ranging from economic (e.g., infrastructure, livelihood assets) to non-economic impacts (e.g., human mobility, cultural heritage). Both may result in devastating consequences for human development and security of affected populations.

For years, vulnerable states and civil society pushed for bringing climate-related human mobility to the forefront of L&D discussions under the UN Framework Convention on Climate Change's mechanism on L&D.

Despite the existence of established bodies¹ being specifically tasked to address the topic of human mobility and particularly displacement in the context of L&D, related assessments and data collection do not take this issue into consideration (L&DC & RID 2023). Thus, evidence on how to effectively integrate human mobility into comprehensive policymaking to avert, address and minimize L&D is patchy. While a landmark decision to establish a L&D fund has been reached at COP27 in 2022, it remains unclear how L&D funding can be operationalized to support efforts to address HMCCC in the future.

In 2017, the German Federal Ministry for Economic Cooperation and Development (BMZ) commissioned the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) with implementing the Global Programme (GP) Human Mobility

in the Context of Climate Change (HMCCC). The main focus of this programme is to support the development of context-specific information and resources on climate-related human mobility. Together with its political partners, namely the Organisation of Eastern Caribbean States (OECS), the Intergovernmental Authority on Development (IGAD) in East Africa, and the governments of the Philippines and Fiji, the programme seeks to improve applied knowledge relating to the sustainable management of climate-related human mobility at regional, national, and sub-national levels. This policy brief intends to provide an overview of the role of human mobility within the current L&D discussions ahead of COP28 in Dubai, featuring perspectives from HMCCC partners. Furthermore, contextualised examples of how HMCCC is or could be addressed are provided and recommendations are presented on how the yet to be operationalised L&D funding could support efforts to address HMCCC. Stakeholder interviews with key representatives from abovementioned partner countries and regions have been conducted to inform this policy brief.

¹ For example, the Task Force on Displacement and the Expert Group on Non-Economic Losses, both operating under the Warsaw International Mechanism for Loss and Damage (WIM)

Definition

Human Mobility in the Context of Climate Change – a fluid concept in the context of L&D

Human mobility is commonly used as an umbrella term to capture various types of movement of people, occurring both as a consequence of L&D but also as a driver of L&D itself (e.g., loss of cultural heritage and social networks). Despite important conceptual differences, the terms for various forms of human mobility are often used interchangeably (IDMC, PDD, IOM 2023). In the context of climate change, these include:

- 1) **Displacement** can occur both due to rapid-onset (e.g., storms, floods) and slow-onset events (e.g., desertification, sea level rise).
- 2) **Migration** is often engaged in as a form of livelihood diversification in instances of climate change gradually undermining natural resource-dependent livelihoods based on, for instance, agriculture or fishery. Migration also includes instances where people move in anticipation of climate impacts. Thus, the line between forced and voluntary migration is often blurry.
- 3) **Relocation** refers to pre-emptive/anticipatory movement in the course of unavoidable and/or frequently repeating climate impacts with no adaptation measures at hand to cope with them. The most prominent examples include relocation due to sea level rise in low-lying island states.
- 4) **Immobility** occurs when soft or hard barriers to adaptation prevent any beneficial movement, trapping vulnerable populations and undermining their decision-making agency.

Notably:

- Climate change acts as a “risk multiplier” by exacerbating underlying and pre-existing socioeconomic vulnerabilities (e.g., poverty, marginalisation, inequity).
- Similar settings confronted with seemingly similar climate risks or impacts may produce different mobility outcomes (mobility and immobility can occur simultaneously) (Burzynski et al. 2022).
- Mobility is often a fluid rather than a clear-cut concept.

This demonstrates the need for a granular understanding of climate-related mobility and the consideration of individual climate thresholds and tipping points (Cundill et al. 2021, McLeman 2018).

L&D – the state of affairs

Ever-increasing pressure from coalitions of climate-vulnerable countries together with irrefutable scientific evidence confirming the (historic) responsibility of the Global North led to the last-minute breakthrough agreement to provide dedicated funding for climate-related L&D at COP 27 in Egypt. Nevertheless, persistent challenges remain. The lack of an agreed definition and conceptualisation of L&D is reflected in diverging perceptions of (1) what L&D consists of and entails, (2) according to which parameters dedicated funding should be raised and provided and to whom, and (3) how to operationalise an eventual distribution mechanism (Boyd et al. 2021, Nand & Bardsley 2020).

Among the most prominent disagreements is the preference of high-income countries for market-based mechanisms, such as insurance schemes (e.g., the Global Shield Against Climate Risks), with these approaches being criticised for disregarding non-economic loss and damage (NELD) as well as climate impacts incurred by SOEs (Gewirtzman et al. 2018). NELD are not easily quantifiable and refer to the individual level (e.g., loss of life, health, mobility) but also to the societal (e.g., loss of territory, cultural heritage and identity) and environmental (e.g., biodiversity and ecosystem loss). In the realm of L&D policy discussions, the key argument from affected communities is that just because these impacts are hardly quantifiable, this does not mean they should not be compensated for as they result in detrimental impacts for human development. While insurance instruments remain salient risk management tools and thus are part of the mosaic of solutions, voices from climate-vulnerable countries as well as L&D-related scientific research demand to steer away dialogues around risk mitigation and adaptation from overly technical solutions. Instead, they suggest opting for people-centred and easily accessible solutions, such as the development of needs-based social safety nets (Huber & Murray 2023, Jackson et al. 2023).

Focus 1:

Dominica and Hurricane Maria in 2017

Hurricane Maria was a Category 5 tropical cyclone, making landfall in September 2017 and causing more than 3,000 deaths. According to the Government of Dominica, the economic damage surmounted to 226% of the GDP, with 80% of the population being directly affected. However, insurance under the Caribbean Catastrophe Risk Insurance Facility provided just US\$ 19.3 million (1.5% of the incurred economic L&D) and the payout was preceded by lengthy and bureaucratic processes. The immediate aftermath of the disaster saw widespread displacement and regional migration to neighbouring islands, with one fifth of the population leaving the island either temporarily or permanently. Extreme weather events like Maria have supported the argumentation by extremely climate-vulnerable countries that an exclusive focus on insurance is unfit to address human mobility (including its long-term implications) and ignores the low cost-effectiveness for more frequent disasters. Furthermore, this focus too often has come at the cost of more equitable and effective solutions. Publicly funded social safety nets, for example, can prevent knock-on effects such as poverty, food insecurity, and maladaptive mobility in the aftermath of weather extreme events. Pre-emptive interventions such as planned relocation or the 'climate-proofing' of infrastructure can prevent harmful impacts in the first place (Lawrence et al. 2020).

While more intense and frequent extreme weather events continue to dominate discussions around L&D, comprehensive management of both SOEs as well as NELDs is frequently neglected by the current architecture of climate policy and finance, including the manifold implications for human mobility. This is concerning given the deficiencies of the global humanitarian system, also faced with growing demand. In 2022, UN humanitarian appeals linked to extreme weather events, commonly involving displacement and distress migration, were eight times higher than just twenty years ago. The share of unfunded requirements has been expanding in this timeframe.

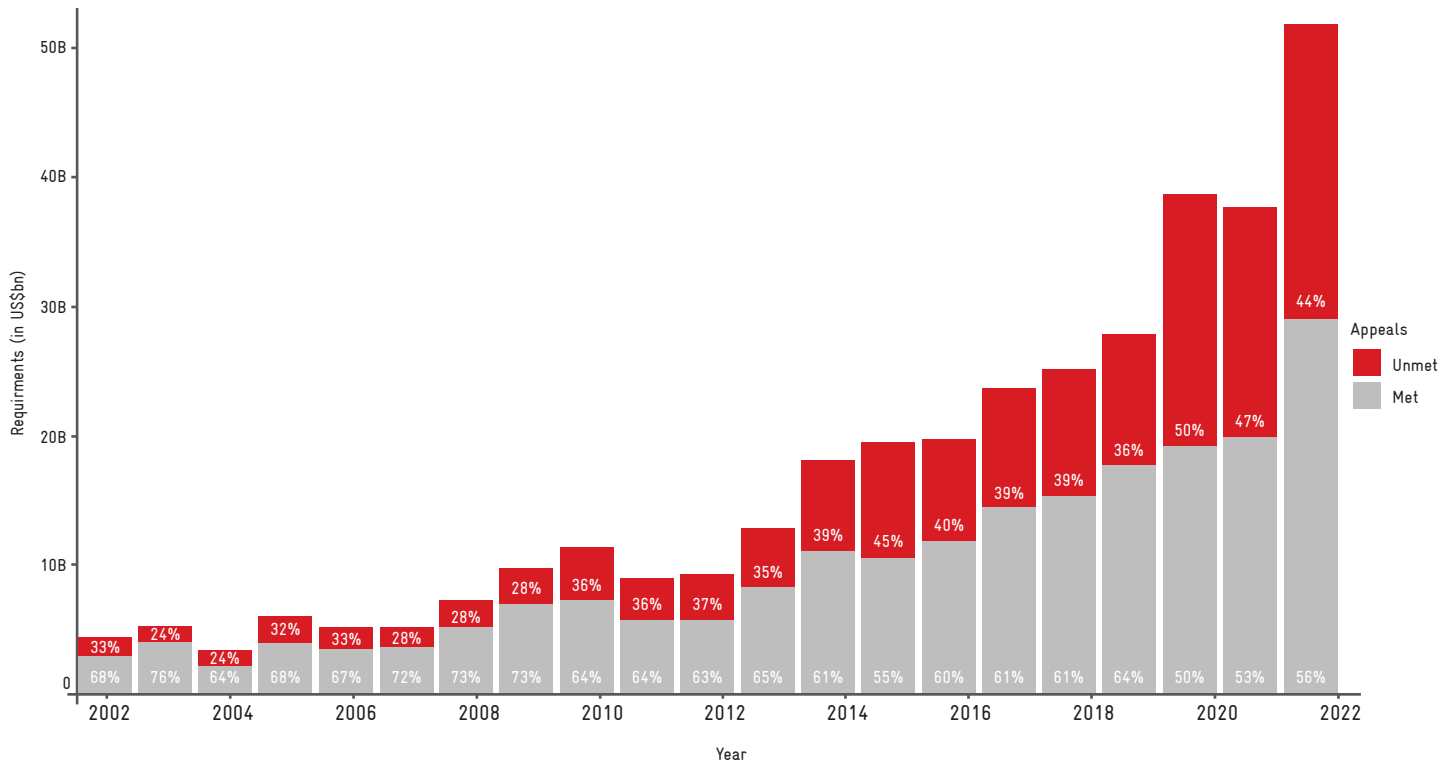


Figure 1: UN humanitarian appeals and response plans linked to extreme weather events (2002 – 2022). Met appeals refer to the percentage of provided funding, unmet appeals received no funding. Data source: UN OCHA Financial Tracking Service.

“In cases of crisis, people move. They do not leave their homes for the sake of moving, but due to the impact of more and more droughts, floods, and conflicts. Consequently, two things should be the focus: first, to invest into communities before they are compelled to move. Second, safeguard policy coherence by addressing sometimes interlinked topics such as climate change and conflict as drivers of mobility simultaneously. We cannot wait for disasters to happen and rely on bandage-aid humanitarian assistance. There is an urgent need for early interventions to build resilience and create livelihood opportunities for people in their respective countries.”

Gamal Hassan // Director of the Centre of Excellence for Climate Adaptation and Environmental Protection, IGAD

In debates around NELD, the issue of human mobility is ascribed to be the most pressing matter. Compared to one-off disaster responses, pre-emptive and participatory interventions to avoid distress migration such as early-warning systems, index-based triggers in social protection, or planned relocation have proven to be more effective and cost-efficient, yet they continue to be massively underfunded or overlooked (Boston, Panda & Surminski 2021).

Even with ambitious climate action, residual L&D (after the potential for mitigation and adaptation is reached) is projected to amount to US\$ 290-580bn per year (Markandaya & González-Eguino 2019). Notably, these assessments are likely to be conservative as they do not and cannot account for NELDs. The dominant approach of short-term humanitarian aid is at best providing immediate relief measures for the displaced but is overlooking other forms of climate-related mobility and long-term implications for human development. Only 4.1% of the US\$ 133bn of disaster-related Official Development Aid (ODA) between 2010-2019 was designated for disaster prevention and preparedness (Bhandari et al. 2022), both of which helps to avoid maladaptive mobility.

Policy (in)coherence and (dis)integration

Climate-related human mobility manifests itself as a consequence of L&D but simultaneously is often a driving force of L&D (see definition p. 2). This interconnectedness alone demonstrates that there is vast potential to exploit synergies in policymaking, thus integrating L&D considerations in policies addressing human mobility and vice versa. However on global, regional and national/local levels, policy coherence remains weak for several reasons. The lack of a formal definition of L&D leads to a high degree of politisation of the issue, especially when it comes to NELD and questions of how to compensate for these, if at all (Shawoo et al. 2021). This applies to climate-related human mobility, too.

“Looking towards a L&D policy for the future, it needs to include human mobility. Currently, it is not given sufficient recognition, both within and outside of the negotiating processes. Historically, for the most part people have not seen migration matters for its origins, thus not analysing the reasons for this movement. The regime of the Fund must be that it is eligible to recognize the loss of cultural assets, human mobility, and other NELDs. It is a matter of definition, scope, and access, culminating in the question: How to access funding for human mobility-related issues?”

Crispin d’Auvergne // Climate Change & Disaster Risk Management Coordinator, OECS

More recently, notable advances regarding policy coherence have been achieved in regions characterised by high climate vulnerability, among them political partners of GIZ’s GP HMCCC. In 2022, 15 African states (particularly the East and Horn of Africa) signed the Kampala Ministerial Declaration on Migration, Environment and Climate Change to improve policy coherence, combat drivers of human mobility, and strengthen data and information systems. IGAD and the OECS both have Free Movement Protocols in place, allowing people to freely move and work in member states. Initially targeting economic development, these Protocols act as buffers against climate impacts, allowing for orderly and safe movement in the instance of extreme weather events (see focus 1) and SOEs (see focus 2). The Protocols constitute fundamental milestones in addressing issues transcending national borders in a more efficient manner.

On a national level, both climate-related mobility and NELD are often poorly understood (Chandra et al. 2023). For climate-vulnerable countries, the lack of adequate funding, institutional capacities, and the widespread lack of data on climate-impacts and related mobility are serious obstacles for identifying, assessing, and reporting on L&D – as well as to derive comprehensive national policies (Thomas & Benjamin 2019, Roberts 2023). More frequent climate events are exacerbating the lack of funding, increase debt, and burden already depleted national budgets. Subsequent austerity measures affect social security spending, reduce available adaptation options and increase the likelihood for affected communities to engage in forms of human mobility, including maladaptive ones.

“Currently in the Philippines, there are no overall strategic interventions in place to deal with internal mobility, although there are some immediate measures to deal with displacement, mainly consisting of relief operations and the provision of housing. Generally, we are still in the stage of tracking movement, resulting in the fact that we do not have a solid policy framework yet. One significant challenge is the impact of rapid urbanisation. Policy development and planning must be informed by improved information and data, which is inadequate, particularly at the local level. Critically, resource allocation must be safeguarded. We do not have sufficient institutional capacity to address the L&D and human mobility nexus but are in the birthing stage of a more explicit integration.”

Lolito R. Tacardon // Deputy Executive Director, Commission on Population and Development, Philippine Statistics Authority

In 2021, 34 of the world’s most impoverished countries allocated five times as much of their resources to servicing debt obligations as they did to safeguarding their populations against the effects of climate change (Boyd 2022). This contributed to remittances becoming a potentially crucial source for funding climate change adaptation, with overall remittance flows being three times greater than global ODA (Mills 2023). This highlights the need for systemic adjustments of climate finance to integrate the needs of people on the move.

Focus 2:

Obstacles for policy coherence in the Horn of Africa and Somalia

The Horn of Africa (HoA) is characterised by a high degree of climate vulnerability and proneness to fragility. Frequent and intense droughts, erratic but heavy rainfalls, and a high prevalence of crop pathogens severely undermine rural livelihoods and threaten food security. Particularly in the border regions of the Intergovernmental Authority on Development (IGAD) Member States, labour migration and seasonal pastoralist movement are key sources of livelihoods. Climate change increases the risk for conflict over dwindling resources (e.g., pasture, water). The climate-induced 2019–2021 desert locust invasion resulted in the agreement to establish transboundary early-warning systems and policy harmonisation as swarms were able to breed uncontrollably in border areas affected by

conflict, resulting in devastating crop losses and maladaptive movement to urban areas (Kenduyiwo et al. 2023).

Somalia as part of the HoA is among the states receiving the least amount of climate finance despite its extraordinary vulnerability to climate change. The ongoing emphasis on immediate needs sustains reliance on humanitarian aid and hinders endeavours to foster climate-resilient development. In light of nascent governance systems, adaptation priorities in national climate policies do not yet reflect the range of climate risks and the interconnectedness of human mobility drivers. These fragmented policies lead to uncoordinated adaptation and resilience programmes. Development efforts often seek to restore rural livelihoods without assessing whether this is viable in the wake of projected climate impacts. Those displaced by drought or conflict commonly head to the cities looking to transition from agropastoralism (Quevedo et al. 2023).

Contextualised examples from the GP HMCCC – What works where, what is needed?

Climate change impacts have become far more frequent and intense in recent decades. *Figure 2* shows the increase of both total climate-related disasters as well as the growing number of affected people over a timespan of just 50 years (1973–2022) in GP HMCCC partner countries. While there are promising efforts by climate-affected countries to

develop and integrate policies on human mobility and L&D, significant challenges remain. Most frequently mentioned by the interviewees of the GP HMCCC political partners, these predominantly pertain to (institutional) capacity, the accessibility and lack of suitable climate finance sources, and nascent but largely insufficient data and information systems.

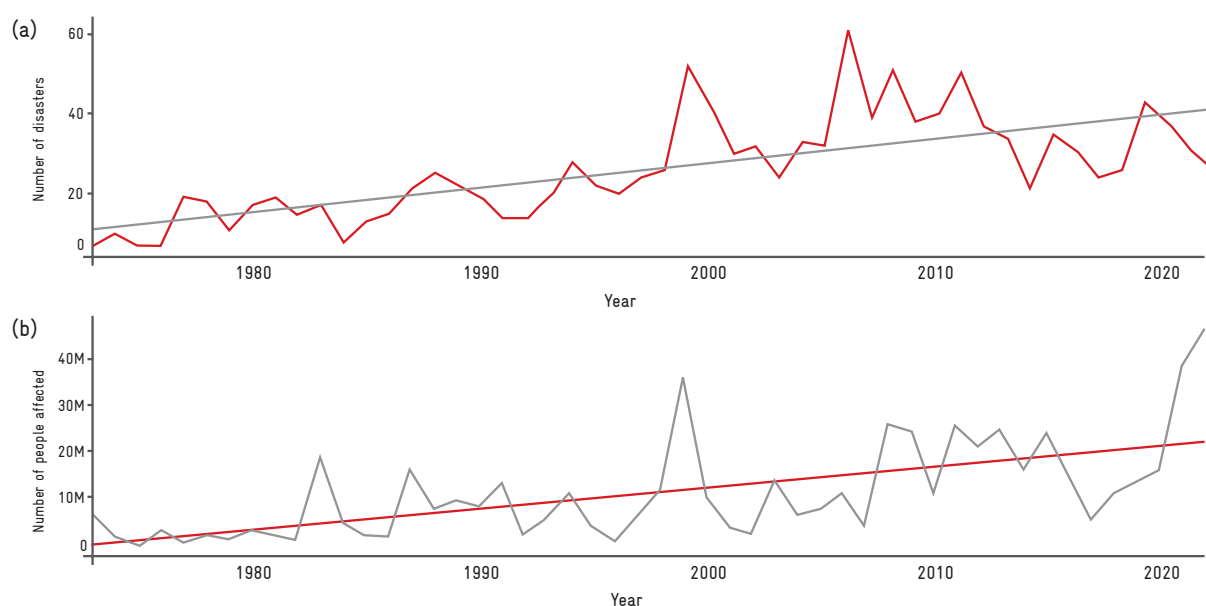


Figure 2: The number of climate-related disasters, not accounting for slow-onset events, (a) as well as the total number of affected people (b) over time (1973–2022) in political partner countries of the GP HMCCC (i.e., IGAD and sovereign OECS countries, Fiji, the Philippines, Kiribati, Tuvalu, and Vanuatu). The trendlines are indicating the increasing tendency. Data source: EM-DAT data base.

Planned relocation – Fiji

Among the most comprehensive policymaking efforts pertaining to L&D in the context of human mobility are examples from Small-Island Developing States, where climate impacts (particularly cyclones and sea level rise) threaten the very existence and sovereignty. This is reflected by efforts to advocate for a more holistic and nuanced understanding of L&D and especially NELD. While globally, many climate-vulnerable countries lack profound consideration of climate mobility in their climate policy frameworks (e.g., National Adaptation Plans), Fiji, for instance, has developed Standard Operating Procedures (SOPs) for Planned Relocation. At the core of these and based on context-specific risk- and vulnerability mapping is the requirement for a “human-centred and human rights approach where genuine participatory and all-inclusive processes are followed”. This places the agency and empowerment of affected communities at the centre of adaptation and L&D (Office of the Prime Minister of Fiji 2023). Nevertheless, Fiji considers relocation as a measure of last resort. In combination with other recent policies and guidelines, Fiji is among the first countries to have developed a strategic framework to address current and future issues arising from human mobility and related L&D (Lund 2021).

“Relocation is one of our priorities and part of Fiji’s adaptation planning, still we see planned relocation as loss and damage – because of the loss of social networks, cultural assets, and heritage. We push for the L&D funding to be accessible for planned relocation.”

Lebaiatelaite Gaunavinaka // Adaptation Unit, Climate Change Division, Office of the Prime Minister of Fiji

Such an approach aligns with broader insights on planned relocation as an increasingly salient strategy for climate adaptation, yet it can also result in maladaptive impacts for the livelihoods of affected communities (Pill 2020). Of the few global comparative analyses, a consistent finding is that community engagement is a vital factor for enhancing intended livelihood outcomes while the absence thereof frequently contributes to the opposite (Bower et al. 2023).

Social safety nets – OECS

As highlighted by the interviews, the lack of institutional capacity is a persistent obstacle applying to contrary contexts: where a comprehensive (national) framework to avert, minimise and address human mobility in the context of L&D is already in place, the operationalisation is often constrained by lack of sufficient funding sources, often leading to, or coinciding with inadequate institutional capacity. Where frameworks are missing, development of such is hindered by insufficient funding and capacity in the first place. Given the Caribbean’s high exposure to climate change, OECS’s Free Movement Protocol, for instance, includes the portability of social security benefits so that people either do not lose their welfare benefits or can apply for them when they are displaced and move to neighbouring islands. This approach reduces the risk of maladaptive outcomes, such as when mobility leads to further impoverishment, food insecurity, deteriorating health or social marginalisation. However, full implementation of the Protocol is constrained by climate change itself as it exacerbates the debt burden of national budgets, impacting the financial room for manoeuvre.

“Capacity continues to be a major challenge, both within as well as in between countries. This relates to finding housing, finding resources to adequately handle people, and meeting their needs, such as providing social security, school places, health services, and so on. This is particularly demanding in events causing thousands of people on the move. It is also always about contingent government resources as many governments are heavily in debt.”

Crispin d’Auvergne // Climate Change & Disaster Risk Management Coordinator, OECS

On top of that, data and knowledge on interregional movement is often lacking, including information on where people left from, where they arrived at, and for what particular reasons. Vulnerability-mapping and holistic assessments of how varying climate impacts can impact varying forms of mobility, interlinked with varying kinds of L&D, are the foundations for the development of context-specific and needs-based national frameworks. As the interviewee pointed out, this impedes advancing knowledge and policymaking from lessons learned.

Data and information systems – Philippines

Similarly affected are the Philippines, highly vulnerable to storms, droughts, and sea level rise. While there are important policy documents in place, most of them only casually mention climate-related mobility. This is partly because of the lack of data to inform a more specific and comprehensive integration of mobility issues and related L&D, particularly pertaining to common rural-urban and rural-rural movements. As the interviewee explained, one significant challenge is the impact of rapid urbanisation, which may drive people into informal settlements that are similarly or even more exposed to climate impacts compared to their places of origin. Consequently, approaches for the systemic establishment of digital data bases have been launched to assess the needs and preferences of affected communities and avoid potential L&D from distress migration or displacement (Jamero et al. 2019).

For all three examples outlined above, the derived reasoning for the country-ownership of interventions to tackle L&D can be supported from multiple angles: first, the complexity of context-specificity warrants countries to take the lead in developing national policies and strategies to identify, assess, and address L&D for merely practical reasons (Thomas & Benjamin 2019). Second, the climate justice principle insists on country ownership of frameworks to ensure that funding is used in line with the needs and preferences of affected communities (Huber & Murray 2023). Third, available evidence strongly suggests that if country ownership of frameworks enables affected communities to participate in decision-making processes (e.g., Fiji's SOPs), interventions linked to human mobility have a far greater likelihood of sustainably and effectively avoiding, minimising, and addressing L&D (Omukuti 2020).

Policy recommendations for (German) development cooperation and conclusion

The global climate finance landscape does currently not accommodate the varying interlinkages between human mobility and L&D, caused and reflected by persisting conceptual unclarity around both concepts. This complicates approaches to develop comprehensive national frameworks. Efforts to address human mobility in the context of climate change are predominantly focused on displacement (arguably the most evident form of L&D). Given the severe insufficiency and short-term focus of post-impact humanitarian aid as the most common response, the occurrence of L&D is at best postponed but rarely averted, minimised, or addressed in a sustainable manner. Where the limits of adaptation are reached, L&D becomes likely and so does the risk of maladaptive mobility outcomes. Socioeconomic

vulnerabilities (e.g., poverty) of affected populations, often forming soft adaptation barriers, may lead to the dismissal of climate change being a determining factor for L&D. Socio-economic vulnerabilities also decide whether mobility can unlock the potential for adaptation, lead to maladaptation, or prevent mobility in the first place (immobility). Consequently, for greater policy coherence “approaches to avoid, minimise and address L&D will need to be implemented in the broader context of achieving social and economic development” (Roberts & Pelling 2018). Various pre-emptive and anticipatory interventions may dismantle soft adaptation barriers (e.g., by strengthening social security) and anticipate hard adaptation barriers (e.g., by considering planned relocation), contributing to averting and minimising L&D and hence preventing harmful implications for human development.

Yet, in many climate-vulnerable countries, the ability to develop comprehensive frameworks to deal with these highly context-specific impacts and consequences is severely impacted by the lack of funding and capacity. This is particularly unfortunate as pre-emptive interventions to avert and minimise L&D are not only far more cost-efficient but starting points for these already exist in many cases. Operationalisation is hampered, however – again by a lack of funding and capacity. Backed up by interviews with representatives of political partners of the GP HMCCC, development cooperation should consequently safeguard the following:

- **Account for the context-specificity** of climate impacts, pre-existing socioeconomic vulnerabilities, prevalent drivers of human mobility, their interlinkage with climate change and potential for L&D
- **Contribute to the establishment of nationally owned frameworks** and **continue to invest in capacity building**, including data and information systems, allowing for **needs-based policymaking** in line with the **preferences of affected communities**
- **Tackle the issue of policy silos and safeguard** that strategies to address the climate change adaptation, human mobility, and residual L&D are approached with an integrative focus
- **Foster pre-emptive and anticipatory interventions** before critical tipping points preceding maladaptive coping mechanisms are reached, particularly accounting for gradually manifesting SOEs and NELD
- **Support climate-vulnerable countries in their demand for L&D funding to become easily accessible** and be used to address all forms of L&D and human mobility, including on local and community levels

“L&D funding should be urgent, less bureaucratic, less red tapes like other funds. It should be needs-based, data-based, tangible, and covering both economic and non-economic losses. Development priorities differ across countries, there is no one-size-fits-all-solution. We need tailored and needs-based interventions. Country ownership of these is the whole essence.”

Gamal Hassan // Director of the Centre of Excellence for Climate Adaptation and Environmental Protection, IGAD

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