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Loss and Damage:
Assessing Institutional Arrangements from National to Local Levels



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Executive Summary

This study investigates how six nations- India, Mauritius, Somalia, Vanuatu, Viet Nam, and Zambia, structure their governance arrangements to manage climate-related loss and damage (L&D), examining operations across national, sub-national and local scales. The research combines three methodologies: mapping of institutional actors and mandates, analysis of policy and legal documents, and structured consultations with state and non-state representatives. The assessment examines four dimensions: (1) institutional arrangements, coordination and participatory processes, (2) data sharing, reporting and technical systems, (3) operational capacity, and (4) learning and scaling processes. These insights are aimed to guide governance reforms and strengthen countries' ability to work with emerging international L&D instruments.

Climate-induced losses and damages are already reshaping development pathways in all six case countries, with disproportionate burdens falling on populations facing socioeconomic marginalization and sectors highly dependent on climate-sensitive resources. Although each country has advanced disaster risk management and climate adaptation programming, their institutional architectures have yet to fully accommodate the breadth, magnitude and distributional patterns of L&D impacts.

The study presents the following core findings:

- **Loss and damage (L&D) has not yet been widely developed as a stand-alone policy domain in most contexts.** Relevant functions are dispersed across disaster response agencies, climate ministries, sectoral departments and social welfare programmes, without a central coordinating authority or unified mandate. Vanuatu stands out as the only country with a dedicated loss and damage (L&D) policy framework and a phased implementation plan. In contrast, the other five countries address L&D within wider climate or disaster policy instruments that do not specify clear institutional responsibility or detailed implementation arrangements.
- **Institutional fragmentation weakens strategic coherence.** Vague role definitions, redundant coordination structures and inadequate linkages between central and decentralized authorities constrain capacity for integrated planning, resource mobilization and programmatic delivery related to L&D. These governance shortcomings further complicate efforts to engage effectively with international support mechanisms, including the Warsaw International Mechanism, Santiago Network and Fund for Responding to Loss and Damage.
- **Information systems emphasize economic impacts and sudden-onset hazards.** Disaster loss registries and post-event needs assessments across all six countries concentrate on quantifying physical destruction, damage to buildings, infrastructure and economic assets. Conversely, gradual climate shifts and non-monetary impacts, encompassing health outcomes, ecosystem integrity, cultural resources, community cohesion and collective identity, receive limited systematic documentation, which diminishes their prominence in policy discussions and financing requests.
- **Participatory structures remain underdeveloped despite procedural provisions.** Each country maintains channels for engaging non-governmental stakeholders, yet these are frequently time-limited, initiative-specific and minimally connected to authoritative policy decisions. Sub-national authorities, civil society networks and communities directly exposed to climate hazards exert limited influence on national L&D agendas. Representation deficits are especially pronounced among women, young people, persons with disabilities and populations in remote geographic locations.
- **Operational capacity is weakest at decentralized levels.** Local governments and community-based entities frequently operate without clearly defined mandates, sufficient financial resources, suitable technical tools, or the specialized expertise required to assess, document, and respond to loss and damage (L&D) in alignment with

national frameworks and international reporting obligations. Dependence on externally funded, short-term interventions hampers knowledge retention and continuous institutional learning.

- **Effective local practices remain confined to pilot initiatives.** The six countries demonstrate various promising approaches, community-driven impact assessments, incorporation of indigenous and local knowledge systems, and joint climate-disaster programming. Yet these innovations are rarely formalized in national policy guidance or transferred across different regional and sectoral contexts.

Based on these findings, the study recommends four strategic directions for strengthening L&D governance:

1. **Formalize institutional leadership and coordination structures.** Dedicated national coordination structures for loss and damage (L&D) should be established or reinforced to link relevant climate action, disaster risk reduction, sectoral development and social protection systems. In parallel, explicit L&D provisions should be incorporated into foundational policy instruments, including National Adaptation Plans, nationally determined contributions, and climate and disaster management legislation, to clarify institutional mandates and accountability arrangements.
2. **Build comprehensive data and reporting architectures for L&D.** Augment current disaster information and sector-specific monitoring platforms to encompass L&D-focused metrics, addressing both rapid and gradual climate processes alongside economic and non-economic consequences. Improve information transmission from community through sub-national to national tiers and harmonize methodologies with international reporting obligations under the Enhanced Transparency Framework, Sendai Framework for Disaster Risk Reduction and 2030 Agenda for Sustainable Development. Strengthen data analysis capacity to inform forward-looking planning and policy development.
3. **Establish permanent participatory governance mechanisms.** Institutionalize platforms and processes enabling local administrations, civil society organizations and affected populations to systematically inform L&D assessment, strategic planning and performance monitoring. Prioritize inclusion of women, youth, persons with disabilities and other groups experiencing heightened climate vulnerability, while integrating community-based knowledge systems with technical and scientific evidence.
4. **Expand decentralized capacities and knowledge management.** Deliver ongoing capacity development, including skill-building programmes, analytical methodologies and dedicated funding, to sub-national and community institutions working on L&D. Create permanent mechanisms to document, disseminate and replicate successful approaches, while connecting national resource allocation with technical assistance and financing opportunities provided through the Santiago Network, Fund for Responding to Loss and Damage and complementary international programmes.

Implementing these strategic directions will enable countries to develop tailored multi-level governance structures and align these with the evolving international architecture on loss and damage, creating response systems characterized by domestic anchorage, local relevance and contribution to long-term development and resilience.

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List of Abbreviations

ALL ACT	Accelerating Loss and Damage Action and Cooperation
BTR	Biennial Transparency Report
CBO	Community-Based Organization
CBNRM	Community-Based Natural Resource Management
CCA	Climate Change Act
COP27	27 th session of the Conference of the Parties of the UNFCCC
CSO	Civil Society Organization
DANA	Damage Assessment and Needs Assessment
DIIS	Danish Institute for International Studies
DIMS	Disaster Information Management System
DMMU	Disaster Management and Mitigation Unit
DoCC	Department of Climate Change
DRM	Disaster Risk Management
ETF	Enhanced Transparency Framework
EU	European Union
FRLD	Fund for Responding to Loss and Damage
GDP	Gross Domestic Product
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
IISD	International Institute for Sustainable Development
IO	International Organization
IOM	International Organization for Migration
IPCC	Intergovernmental Panel on Climate Change
L&D	Loss and Damage
MARD	Ministry of Agriculture and Rural Development
MONRE	Ministry of Natural Resources and Environment
NAB	National Advisory Board on Climate Change and Disaster Risk Reduction

NAP	National Adaptation Plan
NDC	Nationally Determined Contribution
NDMIS	National Disaster Management Information System
NDMO	National Disaster Management Office
NDRRMC	National Disaster Risk Reduction and Management Centre
NDS	National Development Strategy
NELD	Non-Economic Loss and Damage
NGO	Non-Governmental Organization
PDNA	Post-Disaster Needs Assessment
SDGs	Sustainable Development Goals
SDMAs	State Disaster Management Authorities
SIDS	Small Island Developing States
SoDMA	Somali Disaster Management Agency
TGS	The Global Stockdale
UN	United Nations
UNDP	United Nations Development Programme
UNDRR	United Nations Office for Disaster Risk Reduction
UNEP-CCC	United Nations Environment Programme Copenhagen Climate Centre
UNFCCC	United Nations Framework Convention on Climate Change
WARMA	Water Resources Management Authority
WFP	World Food Programme
WHO	World Health Organization
WIM	Warsaw International Mechanism
ZEMA	Zambia Environmental Management Agency



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1 Introduction

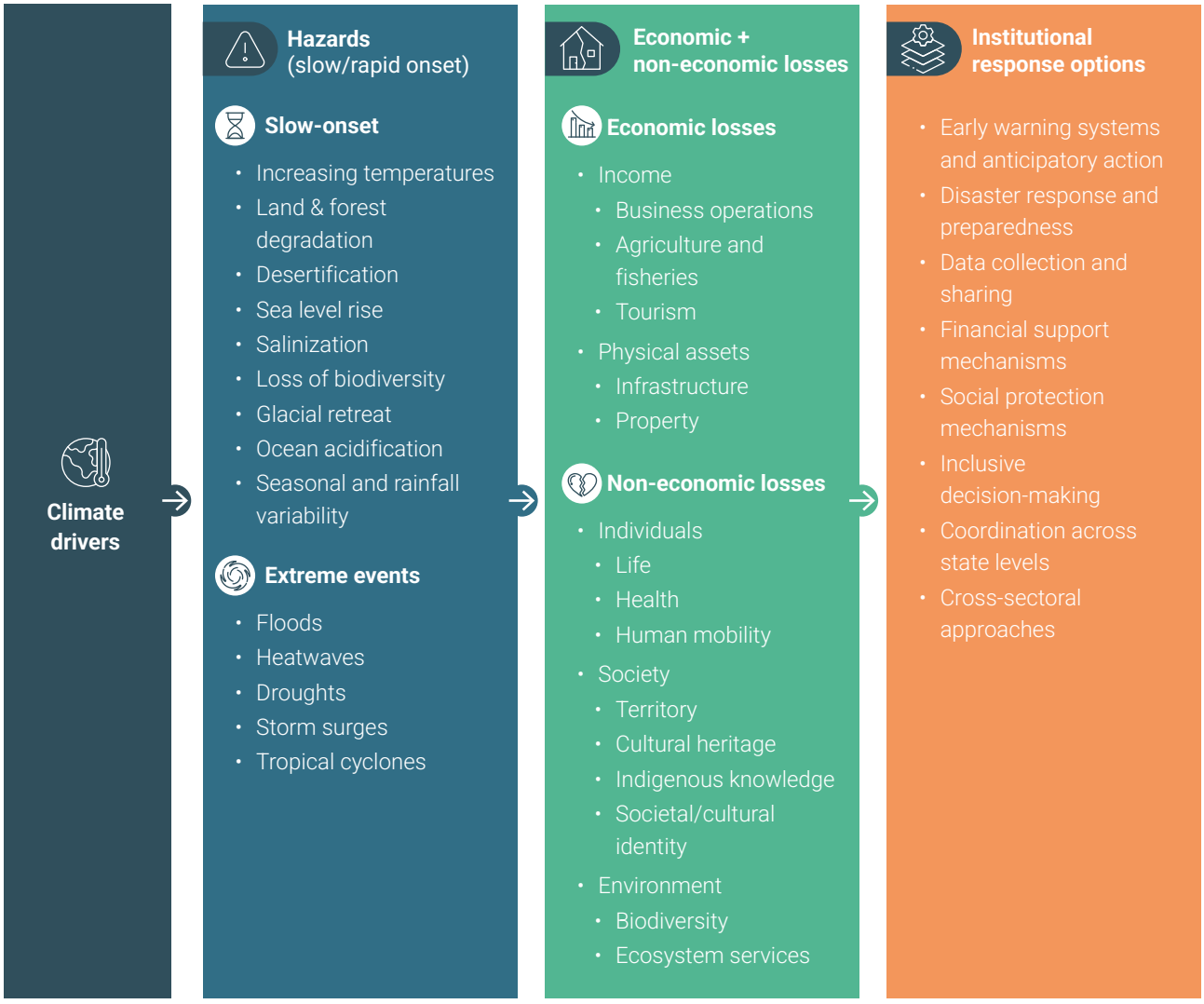
1.1 Background and Context

Loss and damage is increasingly a reality facing diverse countries and populations across the globe. Slow-onset climate changes to temperature, rainfall and sea levels are intensifying, and extreme events such as storms and floods are also more intense and unpredictable. In interaction with diverse development contexts, these changes drive losses and damages to economies, culture, infrastructure, environments and well-being (IPCC 2022). Some communities find themselves in a state of perpetual recovery, as recurring climate shocks and ongoing slow-onset changes erode development and well-being (IISD 2025).

Figure 1.
From climate drivers to loss and damage: hazards, impacts and institutional response options

Source: *Authors' schematic*

Note: *Figure 1 provides non-exhaustive lists with examples of hazards, climate-related economic and non-economic losses and possible institutional response options and approaches*



In parallel, national and international institutions and responses to L&D have developed rapidly in recent years. Policy developments in diverse national contexts dubbed the "national turn" in L&D policy (Vanhalla *et al*. 2025), set the stage for responses on the ground as well as national engagement in global frameworks. Often, these national developments build on disaster and adaptation institutions and approaches, yet dedicated loss and damage institutions are also emerging.

At the international level, both multilateral and non-governmental organizations are increasingly involved in addressing loss and damage, supporting systems and response efforts. New mechanisms under the UNFCCC, especially the Santiago Network and the Fund for Responding to Loss and Damage, are expanding the range of available support. Many countries are turning to these institutions as they explore pathways to empower their responses, seeking financial resources as well as technical and capacity-building assistance.

This rapidly developing institutional landscape offers opportunities as well as challenges for actors from national ministries to local governments seeking to respond to L&D. This report therefore examines how different countries are structuring their loss and damage efforts across diverse climate and development contexts. It seeks to improve understanding of emerging institutional arrangements for L&D response, identifying key trends, gaps and opportunities to strengthen L&D response. Specifically, this report focuses on four critical aspects of L&D response: (1) institutional arrangements, coordination and participatory processes, (2) data sharing, reporting and technical systems, (3) operational capacity, and (4) learning and scaling processes. These are interlinked and crucial for a robust loss and damage knowledge base and policy and response efforts.

1.2 Purpose and Scope of the Report

This report provides latest knowledge on institutional developments and experiences across six case countries across geographical, development and security contexts: In Asia, India and Viet Nam, in Africa, Zambia and Somalia, and for SIDS, Mauritius and Vanuatu. The report focuses on both national and sub-national levels' efforts alongside the role of international support, in assessing, reporting, and addressing climate-related loss and damage. By examining institutional developments and country experiences, it sheds light on the diversity of contexts and governance arrangements. It also highlights common challenges and emerging opportunities across settings. The findings aim to support more coordinated, inclusive, and responsive approaches at both national and global levels to better document and respond to increasing climate-related impacts.

Following the methodology and approach (Section 2), the report presents an overview of losses and damages in the six country contexts (Section 3), followed by an examination of international institutional arrangements (Section 4), a thematic analysis and comparative review of national experiences (Section 5), and finally the main conclusions (Section 6) and recommendations and ways forward (Section 7).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2 Methodology and Approach

The study assessed institutional frameworks and practices at different levels and across different actors, such as government institutions, international organizations and civil society. This was obtained through a vertical assessment of state institutions, horizontal assessment of state and non-state actors and examination of interactions between these.

2.1 Analytical framework

Building on recent literature on climate governance, disaster risk reduction and loss and damage (Vanhala and Calliari 2025; Mechler *et al*. 2020), the study applies a common analytical framework to all six country cases. It takes departure in the "national turn" in loss and damage research (Vanhala and Calliari 2025), which underscores the importance of national institutions and actors in loss and damage governance and response. This is combined with a multi-level and polycentric governance approaches (Heinen *et al*. 2022). A multi-level approach emphasizes governance across administrative scales, or levels, which for loss and damage is crucial in linking local impacts, sub-national response, national policies and international institutions. A polycentric approach draws attention to the diverse state and non-state actors at play, which captures the diverse community, state, humanitarian and development actors that can be involved in loss and damage related efforts. This analytical framework is operationalized through the study's vertical and horizontal assessments within national settings. As in previous studies establishing the national turn in loss and damage research, international institutions and policy developments provide a backdrop for national developments and are therefore also briefly analysed in this report (Vanhala and Calliari 2025).

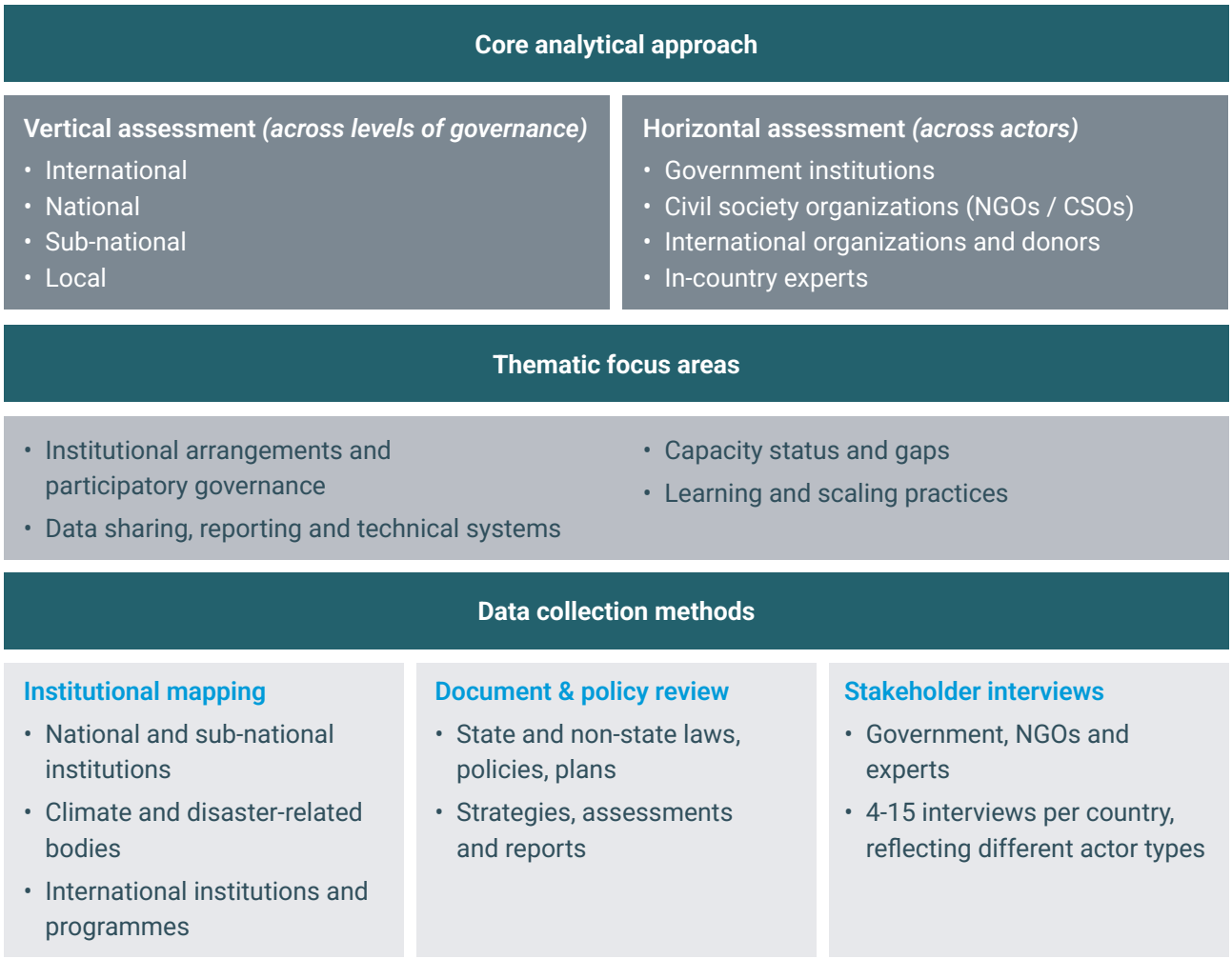
The study approach and analysis were further organized around four thematic focus areas, based on current gaps in loss and damage knowledge and governance (McNamara and Jackson 2019; McQuistan *et al*. 2022; Balzter *et al*. 2023): (i) institutional arrangements, coordination and participatory processes (mandates, coordination mechanisms, stakeholder roles); (ii) data sharing, reporting and technical systems (information flows, tools, indicators); (iii) operational capacity (human, financial and technical resources across levels); and (iv) learning and scaling practices (mechanisms for reflection, innovation, replication and adjustment). While "operational capacity" (Section 5.3) examines the distribution and adequacy of human, technical and financial resources for loss and damage work, "learning and scaling practices" (Section 5.4) focuses on how institutions use those resources over time to document experience, adapt approaches and replicate successful practices. These themes structure the country-level analysis and are further operationalized through sub-categories such as legal mandates, vertical and horizontal coordination, treatment of non-economic losses, inclusion of vulnerable groups and linkages to international processes. Together, they provide a lens for understanding and comparing how different institutional configurations and approaches shape countries' ability to assess and respond to loss and damage in practice.

In many countries, loss and damage is not addressed as a standalone issue but is embedded within related policy areas, particularly disaster risk management and climate change adaptation. This assessment therefore examined how loss and damage is addressed in practice, including efforts situated within these broader institutional domains. It also explored early experiences with reporting and implementation, drawing on perspectives from a range of stakeholders.

The figure below illustrates the study design and methodology, combining vertical and horizontal institutional assessments with thematic analysis. The approach draws on specific methods of institutional mapping, document review and stakeholder interviews to examine how loss and damage is governed in practice across levels and actors. The four thematic focus areas (middle layer of Figure 2) comprise the core analytical focus areas of the study and are applied systematically across all six country cases.

Figure 2.
Study design: assessing institutional arrangements for loss and damage

Source: *Authors' schematic*



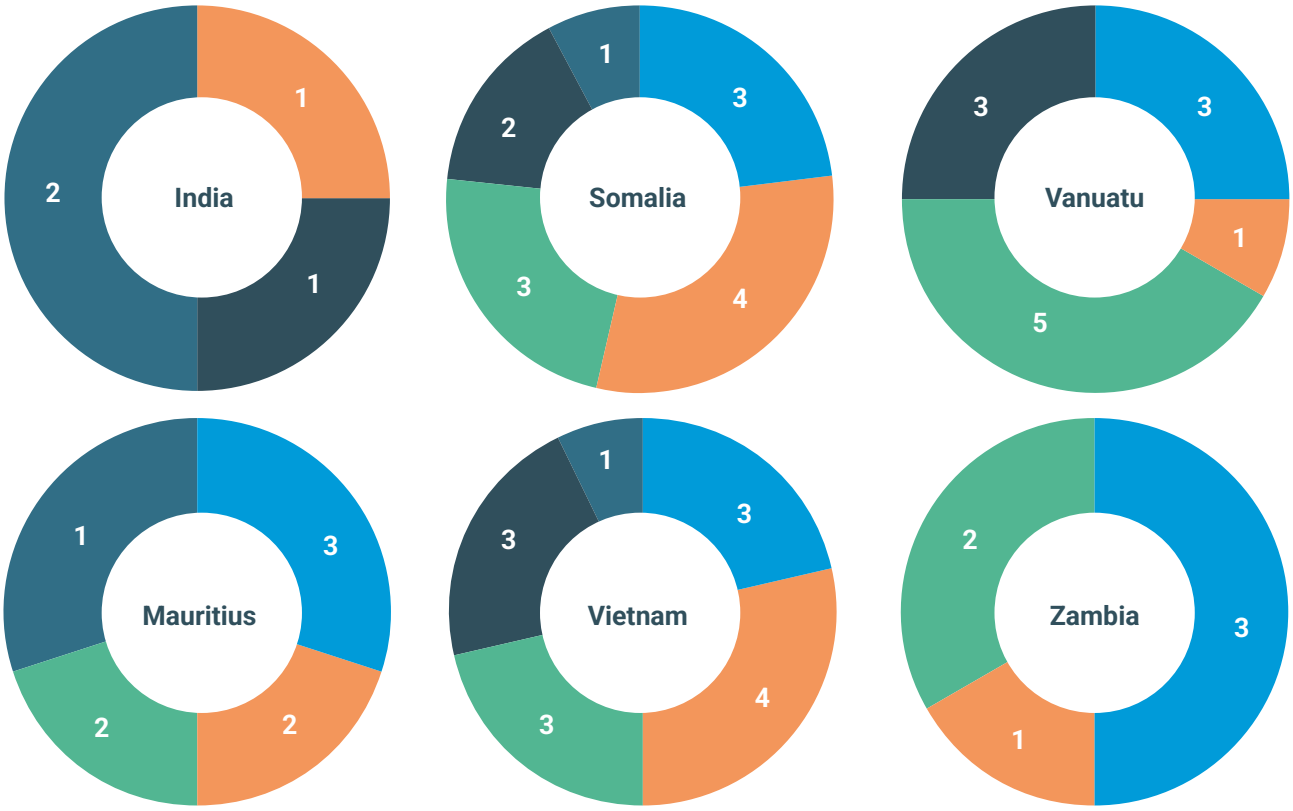
This report presents a synthesis of findings from the study's data collection, including institutional mapping, document and policy review and stakeholder interviews:

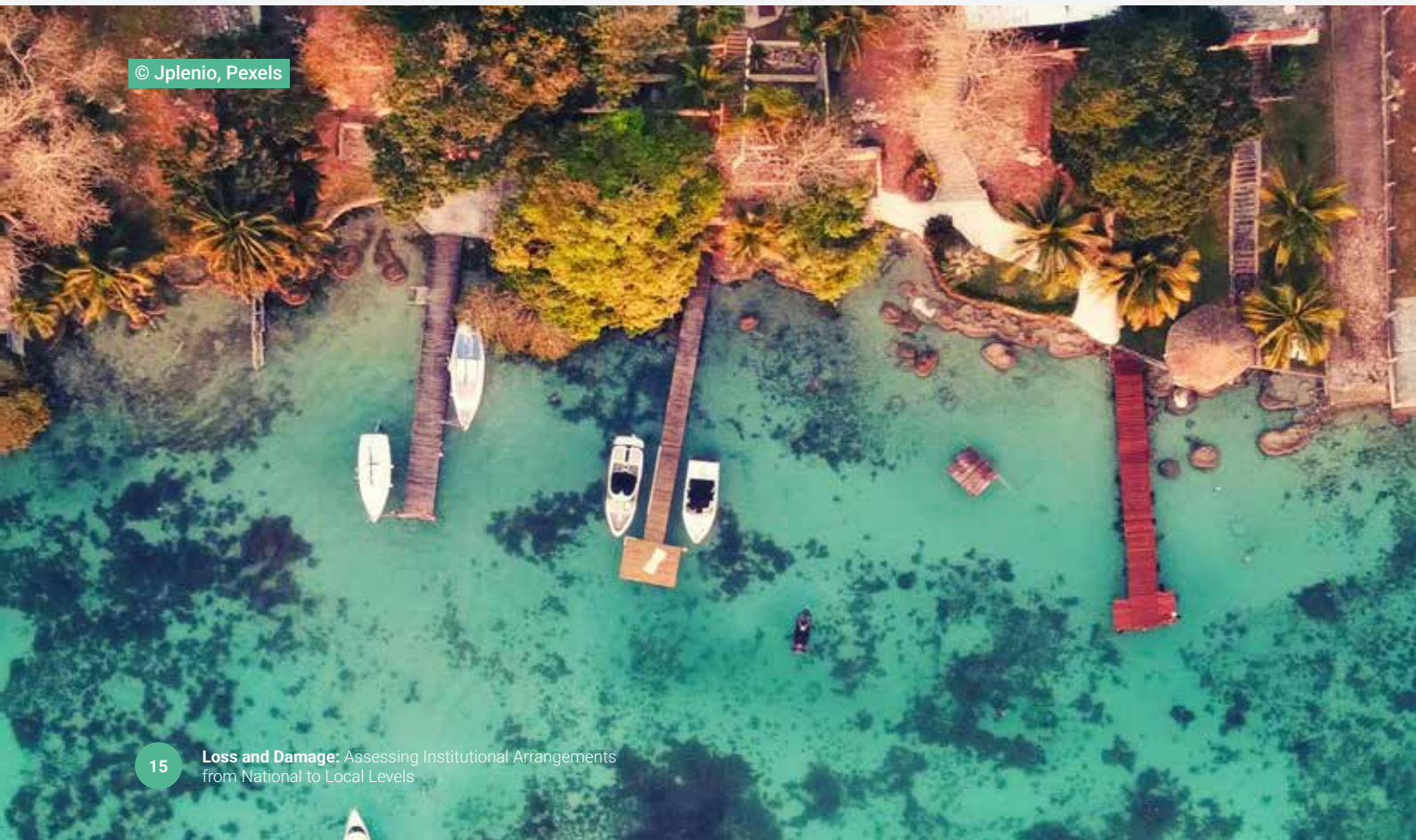
- **Institutional mapping** of relevant loss and damage-related institutions including at national and sub-national levels and international institutions and major programmes. This includes climate and disaster-related institutions in particular country contexts.
- **Document and policy review** of relevant state and non-state policies, programmes and plans, as well as topic-specific assessments and reports.
- **Stakeholder interviews** covering key areas such as legal and institutional frameworks, coordination mechanisms, participatory governance, data and reporting systems, human and technical capacity, and processes for learning and scaling. For each country, between 10 and 15 interviews or written questionnaire responses were collected. These included participants from national and sub-national government institutions, non-state actors, international organizations, and in-country experts, with the aim of capturing three to four perspectives from each group.

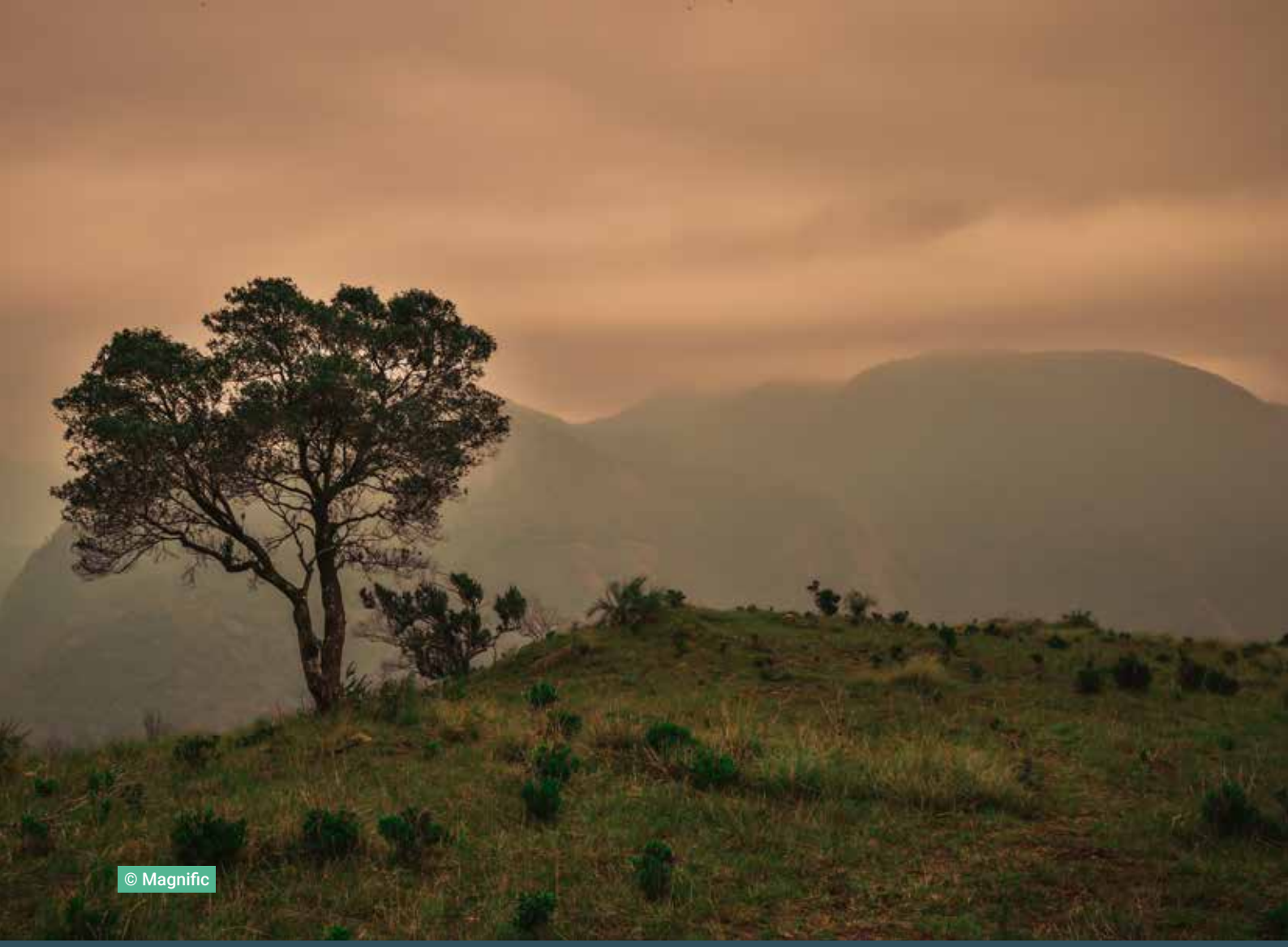
These three methods were used to populate and apply the analytical framework across all six countries, ensuring comparability while remaining sensitive to context-specific institutional realities. It informs the analysis as well as summary ratings, which are provided for all case countries country for each thematic area and offer an overall indication of current status. The ratings are based on ratings collected through stakeholder interviews (see the study questionnaire in the report annex), in combination with information from the other data collection methods.

Figure 3.
Stakeholder interview coverage across actor types and levels

Source: *Authors' schematic*







3 Country Climate Impact Overview

The report draws on six country cases- India, Mauritius, Somalia, Vanuatu, Viet Nam and Zambia, that capture contrasting climate hazards, development pathways and governance settings across Asia, Africa and Small Island Developing States. Together, they span large emerging economies, fragile and least developed states, and highly exposed SIDS, all already experiencing significant loss and damage. This diversity enables a comparative analysis of how different risk profiles and institutional capacities shape L&D governance in three world regions. The cases also build on existing UNEP-CCC and DIIS collaboration, allowing the use of a shared analytical framework and data collection approach, and providing comparable insights into evolving institutional arrangements for loss and damage.

3.1 India

India		
	Geographic region:	South Asia
	Economic status:	Lower middle income country
	Population:	1.46 billion (2025)
	GDP:	USD 3.96 trillion (2025)

Source: World Bank Open Data, India.

India is a lower-middle-income country in South Asia, and it is both the world's seventh largest country by land area, and the world's most populous nation, with approximately 1.46 billion inhabitants in 2025. With a GDP of around 3.96 trillion USD, a per capita GDP of 2,702.5 USD and recent economic growth of 7.6% in 2025, the country is experiencing rapid development and significant socioeconomic transformation (World Bank n.d.).

India's large population and geographic extent, as well as diverse climatic conditions, make the country particularly vulnerable to the adverse impacts of climate change. The type of impact varies by the local context, such as geography, population density, and dependency on climate-sensitive sectors. For example, the state of Gujarat is increasingly affected by extreme heat and droughts, as well as extreme rain, rising sea levels and floods (ICLEI South Asia 2024).

Climate change in India results in significant economic and non-economic losses. Economic impacts include disruptions to trade and economic activity, which slow economic growth and result in loss of livelihoods, and damage to infrastructure, including, among others, housing and educational infrastructure (CMCC n.d.). Non-economic losses are also substantial and include increased mortality, severe mental health impacts and increased disease risk, large-scale displacement, and the erosion of social cohesion, which increases existing socioeconomic inequalities, including gender disparities (World Bank Group 2021a). Climate impacts also contribute to the loss of ecosystem services and biodiversity (CMCC n.d.). The diversity of geographic and socioeconomic conditions across the country highlights the importance of region-specific considerations for loss and damage assessments (ICLEI South Asia 2024).

3.2 Mauritius

Mauritius		
	Geographic region:	Indian Ocean
	Economic status:	Upper middle income country
	Population:	1.24 million (2025)
	GDP:	USD 16.16 billion (2025)

Source: World Bank Open Data, Mauritius.

Mauritius is an archipelagic Small Island Developing State (SIDS) located in the Indian Ocean and is classified as an upper-middle-income country with a population of approximately 1.24 million (World Bank n.d.b). The vast majority of the population (96.5%) lives on the main island of Mauritius (Statistics Mauritius 2024). The GDP of Mauritius in 2025 is estimated at 16.16 billion USD and the GDP per capita is around 12,991.3 USD, with recent GDP growth since 2021 reaching between 3% and 8.7% per year (IBRD 2025). The most important economic sectors are services (including tourism and hospitality) with 66%, industry (18%) and agriculture (3.4%) (African Development Bank 2024).

Coastal zones and densely populated urban areas are particularly vulnerable to the adverse impacts of climate change, including sea-level rise, coastal erosion, increased flooding, biodiversity loss and disruption of cultural heritage (CADRI 2020). These short- and long-term climate risks are enhanced by the country's economic dependence on climate-sensitive sectors such as tourism, agriculture and fisheries (Government of Mauritius 2012). Vulnerable groups, including low-income households, women, children and people with medical needs, are disproportionately affected.

Economic losses resulting from climate impacts include damage to infrastructure and housing, business disruptions and reduced productivity in key sectors such as tourism and agriculture (Government of Mauritius 2024). In addition to these economic costs, non-economic losses are significant. Mental health impacts following cyclones and flooding events are particularly concerning, alongside disruptions to education and social cohesion following relocation after housing destruction (UNEP-CCC 2025). Climate change is also negatively affecting cultural heritage sites and biodiversity, as well as increasing water scarcity due to climate change induced changes in the rainfall patterns (Government of Mauritius 2012; UNEP-CCC 2025).

3.3 Somalia

Somalia

Geographic region:	Africa
Economic status:	Low-income country, Least Developed Country (LDC)
Population:	19.7 million (2025)
GDP:	USD 13 billion (2025)

Source: World Bank Open Data, Somalia.

Somalia is a least developed country located in the Horn of Africa with an extensive coastline and a largely arid and semi-arid climate (IGAD CAEP 2023; UNCTAD n.d.). The population stands at some 19 million people, and the country has a GDP of approximately 13 billion USD (World Bank n.d.c; World Bank n.d.d). Typical livelihoods include agriculture and nomadic pastoralism, with three fifths of the population leading nomadic lifestyles, despite increased urbanization and sedentarization in recent years (IGAD CAEP 2023; Lewis and Janzen 2025; SPARC 2024). Poverty remains widespread, with two thirds of the population facing multidimensional poverty, including deprivations in living standards, education and more (SNBS and MoLSA 2024).

Since 1991, Somalia has been severely affected by conflict, and the country is also ranked among the thirty most climate-vulnerable countries globally (ND-GAIN n.d.). The combination of conflict and climate extremes, including reoccurring drought and floods, has driven protracted humanitarian crisis with widespread malnutrition and internal and cross-border displacement (Lewis and Janzen 2025).

These challenges have necessitated large-scale humanitarian support to meet basic needs (HRW n.d.; Mishra 2025). The country's governance system remains fragile and limited in capacity, despite a new federal governance system constituted in 2012 (Lewis and Janzen 2025).

Climate disasters have resulted in severe losses and damages, both economic and non-economic. Economic losses mainly affect agriculture and pastoralism through crop losses, livestock loss, reduced yields and crop pests (SPARC 2024, pp. 14, 20; IGAD CAEP 2023, p. 3) Additionally, fishing, infrastructure and housing are also expected to incur considerable losses from slow and sudden events (SPARC 2024, p. 20; IGAD CAEO 2023, p. 3). Equally severe are the non-economic losses, most significantly displacement and loss of life and health associated with droughts and floods, which have led to widespread food insecurity and even famine (SPARC 2024). Floods and droughts are also associated with conflict dynamics and displacement, since food insecurity increases competition for resources and pushes people to move in the search for food and feed for livestock (SPARC 2024; IGAD CAEP 2023).

3.4 Vanuatu

Vanuatu

Geographic region:	Pacific Ocean
Economic status:	Small Island Developing State (SIDS)
Population:	335,169 (2025)
GDP:	USD 1.35 billion (2025)



Source: World Bank Open Data, Vanuatu.

Vanuatu is a Small Island Developing State located in the western Pacific Ocean with a diverse population of around 335,169 people living mostly in coastal villages on its 83 islands (UNCTAD 2020; World Bank Group n.d.e; MoCC 2025). The country has an annual GDP of some 1.35 billion USD, with the service sector contributing the largest share followed by agriculture and industry (World Bank Group 2021b; World Bank Group n.d.e). Additionally, most ni-Vanuatu depend heavily on the climate-vulnerable livelihoods of subsistence agriculture and near-shore fishing (World Bank Group 2021; MoCC 2025). While the country graduated from least developed country status in December 2020 as a result of steady economic growth, climate impacts currently threaten to erode development gains and hinder further progress (UNCTAD 2020; Government of Vanuatu 2016).

Vanuatu is already experiencing increasingly devastating climate change impacts (MoCC 2025). The country is often ranked as one of the most climate vulnerable countries globally due to its highly exposed geographic conditions, significant disaster-risk and development status (World Bank 2021, p. 3; Adil *et al*. 2025). The United Nations Economic and Social Commission for Asia and the Pacific (UN ESCAP) estimates that under a moderate climate change scenario (RCP 4.5), Vanuatu will incur some 200 million USD in losses annually from cascading risks, making it the Pacific small island state with greatest expected losses as a percentage of its GDP, at about 22% (UN ESCAP 2022).

Economic losses are severe in agriculture and fisheries, which are threatened by sea-level rise, saltwater intrusion, coral bleaching, cyclones and ocean acidification (Maynard *et al*. 2018; UNCDF 2020; World Bank Group 2021b; FAO 2023). Tourism is also expected to be significantly affected, since it strongly depends on deteriorating ecosystems such

as coral reefs (UNCDF 2020, World Bank 2021b). Prominent non-economic losses are losses of cultural heritage and traditional knowledge and loss of territory, environment and biodiversity (Stephens *et al*. 2022). Loss of reefs, coastal lands, biodiversity and more contribute to a loss of knowledge about and connectedness with land and ocean. These are severe losses for communities reliant on subsistence agriculture and fishing, and where identity, culture and environment are deeply interlinked (Stephens *et al*. 2022; Waiwai *et al*. n.d.).

3.5 Viet Nam

Viet Nam

Geographic region:	South-East Asia
Economic status:	Lower-middle income country
Population:	101.6 million (2025)
GDP:	USD 514.7 billion (2025)



Source: World Bank Open Data, Viet Nam.

Viet Nam is a swiftly developing low-middle income country (World Bank Group 2025a) and is often classified as highly climate vulnerable (UN ESCAP 2025b; WBG and ADB 2021). The country has undergone significant socioeconomic transformations, transitioning from one of the world's poorest countries to a middle-income economy in mere decades, with a GDP of some 514.7 billion USD in 2025 (World Bank n.d.). In the last few decades, more than 40 million people have been lifted out of poverty out of a current population of some 100 million (QDND 2024; World Bank Group 2025b). However, this development has come at the expense of the environment, and today the country faces significant environmental challenges (World Bank 2025a), which has led to a policy shift towards sustainability and environmental protection.

Viet Nam is subject to far-reaching current and projected climate impacts including extreme weather events, temperature increase and variability, sea-level rise, salination, coastal erosion and increasingly extreme and variable rainfall (UNDP 2025; Hai *et al*. 2025; VMSA 2024; Tran-Anh *et al*. 2022). Such climate-impacts have severe economic implications, costing up to 1.5% of Viet Nam's GDP annually (CFE-DM 2025). The estimated cost of disasters alone is 2.4 billion USD annually (WBG and ADB, 2021), with an annual increase of almost 13% (GoV NDC 2022). For economic losses and damages, agriculture is often identified as the most affected sector (GoV NDC 2022), and infrastructure and tourism are also severely affected (GoV NDC 2022; UNDP 2025; Ngoc 2019). Beyond economic impacts, Viet Nam suffers extensive non-economic losses including loss of life, health, cultural heritage and displacement (UNDP 2018).

3.6 Zambia

Zambia

Geographic region:	Sub-Saharan Africa
Economic status:	Lower-middle-income country
Population:	21.9 million (2025)
GDP:	USD 28.88 billion (2025)



Source: World Bank Open Data, Zambia.

Zambia is a landlocked country in Southern Africa and has an estimated population of about 21.9 million people in 2025, with a young demographic profile reflected in a median age of roughly 18 years (UNFPA 2025). Urbanization continues to rise (World Bank Group 2024), which puts pressure on the country's largest cities (Kitwe, Ndola, Livingstone and Lusaka) to accommodate a growing urban population. Economically, Zambia's GDP is estimated at around 28.88 billion USD, with GDP per capita 1,317.9 USD, based on recent World Bank reporting (IBRD 2025). Following COVID-19 pandemic-related disruptions, combined with drought and debt pressures, the country is undergoing a gradual post-COVID economic recovery supported by mining, agriculture and services, alongside IMF and World Bank stabilization programmes (IMF 2024; World Bank Group 2024c). Mining, particularly copper, remains the backbone of the economy, while the financial sector is anchored by the Bank of Zambia and a network of commercial banks that drive retail and corporate financial services across the country (Bank of Zambia 2024; World Bank Group 2024c).

Zambia is heavily impacted by the triple planetary crisis of climate change, pollution and loss of biodiversity. Zambians are familiar with the hardships associated with fluctuating weather patterns, desertification, extreme drought and violent floods. Overall, the country presents a timely and relevant case for the development of a comprehensive loss and damage (L&D) assessment due to its significant climate vulnerabilities and compounding socioeconomic challenges. The country is increasingly exposed to both rapid-onset hazards, such as flash floods, extreme heatwaves and intense storms, as well as slow-onset changes, including rising temperatures, erratic rainfall and prolonged dry spells.

Climate-related hazards have led to both economic and non-economic losses, disrupting agricultural production, degrading ecosystems, damaging infrastructure and straining public health and energy systems (Government of the Republic of Zambia 2021; Government of Zambia 2023). With more than 60 percent of Zambia's population living in rural areas (Zambia Statistics Agency 2023), where livelihoods rely largely on rainfed agriculture and access to essential services is limited, communities face heightened exposure and reduced capacity to adapt. These vulnerabilities are further intensified by insecure land tenure, limited participation in decision-making and the erosion of traditional support networks. Multidimensional vulnerability is closely linked to social disadvantage, making climate-induced migration and the loss of communal identity challenging to reverse without inclusive, transformative policy action (IIED 2023).



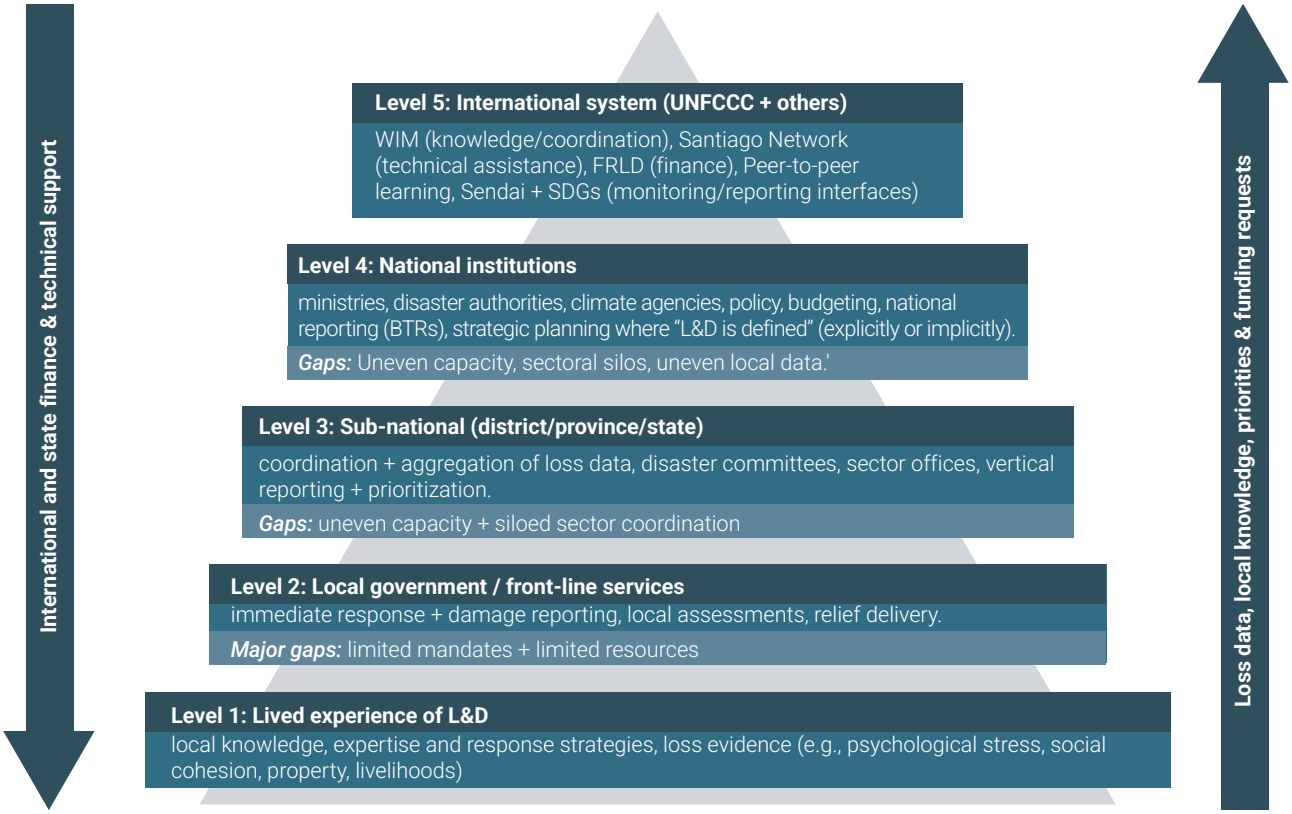
4 Overview of International Institutional Arrangements

This section provides a concise overview of the international architecture on loss and damage (L&D) and how it connects to national and sub-national institutions. It highlights the main processes that create expectations, incentives and opportunities for countries as they design their L&D governance systems; subsequent sections draw on this overview when assessing the six case countries. Over the past decade, international institutions addressing (L&D) have expanded rapidly, creating a denser but also more fragmented landscape for countries seeking support, guidance and recognition of national efforts (UNEP-CCC 2023; UNFCCC 2023a). These developments underscore the need for national L&D governance systems that are robust enough to serve domestic priorities while also interoperable with international frameworks, reporting processes and funding mechanisms (Loss and Damage Collaboration 2025; UNDRR 2025).

International arrangements depend in practice on how responsibilities, data flows and decision-making are organized across national, sub-national and local levels.

Figure 4.
Schematic illustration of international L&D arrangements and their linkages to national and sub-national systems

Source: *Authors' schematic, based on UNFCCC and UNDRR guidance*



Note: *Gaps are identified for levels 2 to 4. Gaps for levels 1 and 5 were outside the scope of this study.'*

Figure 4 offers a stylized illustration of these links between levels of governance. It positions mechanisms such as the Warsaw International Mechanism, the Santiago Network and the Fund for Responding to Loss and Damage at the international level, national coordination and data systems in the middle, and local experience and evidence generation at the base. The figure is used in this report to visualize how international finance, technical support and reporting frameworks ultimately rely on national institutions to define priorities and aggregate loss data, and on local actors to provide underlying information on L&D.

Under the UNFCCC, three pillars are particularly relevant. First, the Warsaw International Mechanism remains the main body tasked with enhancing knowledge, coordination and support on L&D, and recent reviews emphasize the need for stronger links to national systems, including disaster risk reduction and humanitarian mechanisms (UNFCCC 2024a). Second, the Santiago Network has been operationalized to channel technical assistance in response to country requests, which presupposes clear national focal points and coordination mechanisms (UNFCCC 2023b; UNFCCC 2024b). Third, the Fund for Responding to Loss and Damage, established at COP27 and made operational in 2025, provides a new avenue for finance, increasing the importance of coherent national governance, credible baselines and alignment with climate, development and disaster risk strategies (UNFCCC 2023a; UNFCCC 2025b; Climate Funds Update 2025).

L&D is also linked to the Paris Agreement's Enhanced Transparency Framework and the Global Stocktake, where countries can report qualitative and quantitative information on experienced losses and damages, institutional arrangements and support needs in their Biennial Transparency Reports (BTR) (UNFCCC 2023d; UNFCCC 2023e). Technical initiatives are piloting L&D-relevant indicators, particularly for non-economic losses and slow-onset processes, reinforcing the need for integrated, nationally owned data systems.

Beyond the UNFCCC, the Sendai Framework and the 2030 Agenda for Sustainable Development provide complementary entry points through disaster loss databases, post-disaster needs assessments (PDNAs) and Sustainable Development Goal indicators linked to disaster impacts and basic services (UNDRR 2023a; United Nations 2023).

Finally, a growing set of international initiatives and peer-learning platforms—such as the NAP Global Network and the Loss and Damage Collaboration—supports countries in strengthening L&D governance, data and reporting, and in linking L&D priorities to wider adaptation, resilience and disaster risk reduction investments (Loss and Damage Collaboration 2025; NAP Global Network 2025). Countries with clearer L&D mandates, data flows and priority interventions are better positioned to use these mechanisms strategically, a theme explored in the comparative analysis in Sections 5 and 6.

The evolving international L&D architecture presents both opportunities and pressures for national systems. On the opportunity side, countries can draw on multiple entry points, the Warsaw International Mechanism (WIM) and the Santiago Network (SN), the Fund for Responding to Loss and Damage (FRLD) and other funds, Enhanced Transparency Framework (ETF)-related capacity-building, Sendai and SDG processes, and peer networks, to strengthen institutions, shore up data systems and refine policy frameworks (UNFCCC 2023a; UNFCCC 2024b; UNEP-CCC 2023). When domestic roles and responsibilities are clearly defined, coordination mechanisms function across ministries and levels, and data governance is robust, these international processes can reinforce each other and support nationally defined priorities rather than fragmenting efforts (UNDRR 2025; NAP Global Network 2025).

At the same time, fragmented mandates, ad-hoc data collection and weak vertical coordination can make it difficult to respond to reporting demands, formulate coherent funding proposals or ensure that international support translates into sustained institutional strengthening (Loss and Damage Collaboration 2025; UNFCCC 2023d). Experiences from early ETF implementation, WIM reviews and pilot FRLD work indicate that modest but sustained investments in institutional clarity, standard operating procedures for data and reporting, and cross-sector capacity-building can significantly enhance countries' ability to engage strategically in L&D-related processes (ICAT 2023; UNDP and WMO 2025). Maintaining flexibility—through periodic national reviews of L&D-relevant arrangements in light of new UNFCCC decisions, updated Sendai and PDNA guidance and emerging international practice—can help ensure that national systems remain both context-appropriate and aligned with a rapidly developing global architecture (UNDRR 2023a; UNEP-CCC 2023). The six country cases examined in the next section illustrate the varying degrees to which these opportunities and challenges materialize in practice.





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5 Thematic Analysis

This section applies the analytical framework introduced in Section 2 to examine institutional developments across the six case countries. Each subsection focuses on one of the four thematic areas, which are critical for L&D response, but are also typically gaps: (i) institutional arrangements, coordination and participatory processes (Section 5.1), examining mandates, coordination mechanisms and stakeholder roles; (ii) data sharing, reporting and technical systems (Section 5.2), assessing information flows, tools and indicators; (iii) operational capacity (Section 5.3), reviewing human, financial and technical resources across levels; and (iv) learning and scaling practices (Section 5.4), analysing mechanisms for reflection, innovation and replication. For each theme, the analysis presents country-specific findings followed by a summary table that scores key categories, enabling systematic comparison across contexts and supporting the cross-country synthesis in Section 6.

5.1 Institutional Arrangements, Coordination and Participatory Processes

This subsection analyses how countries organize institutional responsibilities for L&D, focusing on legal and policy mandates, coordination across sectors and governance levels, and the participation of non-state actors and affected communities. As L&D is a new and rapidly developing area of policy and programming, this thematic area sheds light on how countries are approaching L&D through new or existing institutions, and their functioning in practice to meet L&D needs. This section assesses four areas: (i) clarity of L&D mandates; (ii) horizontal coordination across institutions; (iii) vertical integration across national, sub-national and local levels; and (iv) participatory mechanisms including vulnerable groups. The country cases reveal varied approaches, ranging from fragmented sectoral arrangements to more integrated governance frameworks.


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5.1.1 India

India's institutional arrangements for loss and damage are gradually evolving from a narrow focus on post-disaster relief towards more integrated and anticipatory approaches. These recognize the complexity of climate impacts, including both economic and non-economic losses. Within this shift, participatory and multi-actor governance is emerging as an important element for more effective loss and damage assessment and management at national, state and city levels.

India's disaster management framework is governed by legislative acts, policies, plans and guidelines at national, state and district levels, with city-level processes increasingly recognized as a critical complement. Nationally, the Ministry of Home Affairs oversees disaster finance, while the Disaster Management Act, 2005 and the National Policy on Disaster Management provide the overarching framework for relief, rehabilitation and reconstruction, including references to "Build Back Better" and livelihood restoration for vulnerable groups (Government of India 2005; Government of

India 2009). At the state level, for example in Gujarat, disaster management plans prioritize preparedness and relief but are beginning to explicitly acknowledge loss and damage through post-disaster needs assessments covering social, productive, infrastructure and cross-cutting sectors.

Yet, loss and damage is still not systematically assessed at the local scale, and important non-economic components such as health, social cohesion and ecosystem services remain underrepresented. Ongoing efforts by national and state authorities to refine methodologies, clarify institutional roles and broaden assessment scopes represent early steps towards a more integrated governance system (Government of India 2009).

Participatory governance around loss and damage in India remains at an early stage, with signs of a shift from purely top-down disaster response. National and state policies increasingly recognize the role of communities, local governments and civil society in understanding climate impacts and shaping responses (Government of India 2005; Government of India 2009). Frameworks such as the Disaster Management Act and the National Policy on Disaster Management emphasize community-based disaster risk management, public awareness and the role of local bodies, while state climate action plans highlight engagement with vulnerable groups. At district and city levels, instruments such as disaster management plans, city resilience strategies, climate-resilient city action plans and heat action plans often rely on consultations, workshops and public hearings, even when loss and damage is not explicitly named.

> **Participation is often limited to disaster response. […] Apart from this, engagement of vulnerable groups in policy and planning, if at all, is tokenistic."**
>
> *– National non-state actor, India*

In practice, participation remains uneven and largely project driven. It typically takes the form of community meetings, focus group discussions, key informant interviews and participatory mapping or surveys, often facilitated by NGOs, community-based organizations or research institutions. These approaches are particularly important for capturing non-economic losses such as disruptions to education, psychosocial stress, loss of cultural and natural resources and weakened social networks that are rarely reflected in official data. Strengthening participatory governance on loss and damage in India will require more systematic community engagement, locally defined indicators and clearer connections between participation, planning and finance.

5.1.2 Mauritius

Loss and Damage is increasingly gaining the attention of relevant stakeholders in Mauritius. However, there is currently no national legislation explicitly addressing it. While loss and damage was included in the Biennial Transparency Report (2024), a comprehensive framework that aligns policies and actions across different institutions and sectors has not yet been developed. Existing legislation relevant to loss and damage primarily include the Climate Change Act (2020) and the National Disaster and Risk Reduction and Management Policy 2020–2030. Regarding recent developments, the National Development Strategy (2025–2040) currently under development at the Ministry for Housing and Land also has relevant elements.

Institutional compartmentalization poses a significant challenge. Responsibilities for loss and damage work, including community engagement, are frequently delegated to other public institutions or ministries. Both state and non-state actors organize their work in silos, resulting in fragmented efforts and a lack of transparency regarding institutional arrangements. Furthermore, vertical cooperation remains limited. Many decisions are made at the national level, and despite coordination with the district level, the village level is not strongly integrated into national frameworks. However, there is cooperation between the NDRRMC, district councils and village councils during disasters.

Regarding public participation and consultation, top-down approaches have historically been prevalent in Mauritius. However, in recent years, efforts have been made to increase participatory governance, for example, with elements of public participation integrated into the Environment Protection Act. Public consultations are in place, including in development of new legislation. Yet these are limited in scope with continued underrepresentation of vulnerable groups. Multiple state and non-state respondents expressed the need to ensure that the voices of the most vulnerable and most affected are included by consulting them in projects and legislative processes.

> **This silo-working problem in Mauritius is very serious. Everyone works only in their own area such as education, social services, etc. But this is such a crucial issue, impacting us all and will continue to do so. What is the synergy? What is the national strategy? Do all actors understand where we're going? And how to build that strategy with different actors?**
>
> *– National non-state actor, Mauritius*

The National Disaster Risk Reduction and Management Centre (NDRRMC) is the key actor in emergency response in Mauritius. While cooperation with international organizations and bilateral development cooperation appears to be a common practice, the collaboration with national or local NGOs or communities is limited and usually project based.

Regarding damage compensation and financial support mechanisms, citizens can submit claims to the police for verification and subsequently receive daily financial support. Refugee centres accommodate displaced people after disasters, although several non-state respondents described them as in very poor condition. Despite these mechanisms, several respondents highlighted that local-level assistance after disasters remains insufficient, especially for vulnerable people, such as those in need of regular medical treatments.


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Respondents proposed several options for improving loss and damage efforts at the national level, including: establishing a knowledge exchange platform bringing together involved stakeholders for coordination and mutual learning; integration of local governments into national frameworks regarding loss and damage-related work; amendments to existing legislation, such as the Climate Change Act; and development of a new loss and damage framework or legislation that clearly sets out goals, roles and responsibilities.

5.1.3 Somalia

Loss and damage governance in Somalia is in early stages, with weak institutional architecture and significant capacity constraints. The country's government is already burdened beyond capacity by climate impacts, conflict and fragility and is highly reliant on humanitarian assistance and international donor finance (SPARC 2024, p. 21). However, Somalia receives very little climate finance from global climate funds despite its highly vulnerability (SPARC 2023, p. 3).

Somalia does not have a stand-alone policy on loss and damage, but the topic has received increasing policy attention in recent years. This is reflected in the latest NDC, which outlines concrete ambitions for addressing loss and damage (MoECC 2025, p. 29). They include establishing systems for quantifying and reporting loss and damage, developing a fund and financing strategy, promoting simplification of access mechanisms in international funding, and integrating mechanisms for addressing losses and damages in national climate policies for both sudden and slow-onset climate impacts (ibid.). However, a cost estimate of these measures and a financing plan have not yet been developed (ibid.) Previous key policy documents like the National Climate Change Policy, updated in 2023, include relevant ambitions such as establishing early warning systems, improving hydro-meteorological networks etc., though outlined under "disaster preparedness and response", not loss and damage (MoECC 2023, p. 36). Across the different policies, implementation remains weak.

Key institutions include the Ministry of Environment and Climate Change at national and state levels and the Somali Disaster Management Agency, as well as major humanitarian and international organizations. Many other ministries also work with sectors impacted by climate-related losses but oftentimes work in silos. Disaster response remains heavily reliant on international actors, for instance the World Food Programme, which plays a vital role in providing relief in crisis situations (SPARC 2024, p. 21; WFP n.d.).

Somalia does not currently have strong systems for forecasting weather events or systematically accessing and quantifying losses and damages (SPARC 2024, pp. 21–22). There are particular gaps in assessing non-economic losses and damages and localized impacts (IGAD CAEP 2023, pp. 9–10; SPARC 2024, p. 22).

Current government and international partner efforts focus on disaster management due to frequent droughts and floods, with improvements in forecasting, early warning and anticipatory action supported by donors. However, critically low funding—especially at state and local levels—hinders institutional development, leaving major technical and human resource gaps.

Coordination between federal and state governments is inconsistent, with barriers of volatile funding, shifting leadership, and in some cases, federal–state tensions. Existing mechanisms limit bottom-up influence. Officials and non-governmental actors call for significant capacity development at state level and clearer linkages between governance levels.

Participatory governance also faces challenges. Vulnerable groups and local actors are sometimes consulted, and traditional knowledge is considered, but inclusion is inconsistent, resource-limited and rarely reaches remote communities. NGOs report that consultations seldom influence policy. Institutionalizing inclusion and building capacity among vulnerable groups are key recommendations.

State engagement with non-state actors is strong with international organizations, especially UN agencies, but weaker with NGOs and community-based organizations (CBOs). Initiatives like Area-Based Coordination Committees and UN cluster systems aim to improve collaboration. Still, poor coordination across state and non-state actors leads to duplication and limited government oversight.

> **In theory, they're [government efforts across levels] integrated. But in practice, they're not because federal institutions don't have the capacity to ensure enforcement. And then this is further complicated by conflict between federal and state structures. Already, two of the states have called off collaboration with the national government altogether. So, the federal level cannot dictate anything to the state, and this creates a big problem.**
>
> *– National non-state actor, Somalia*

5.1.4 Vanuatu

Loss and damage is a major focus for Vanuatu's national institutions, reflecting its severe and existential nature. It is addressed under the Department of Climate Change and the National Advisory Board on Climate Change and Disaster Risk Reduction (NAB) (DoCC 2025, p. 1). Under the NAB, there is an Informal Working Group on Loss & Damage. The diverse members of this group oversee development of all policies, programmes and projects related to loss and damage (MoCC 2025, p. 26). The Department of Climate Change is also a central institution, and holds responsibility for implementing and coordinating efforts towards adaptation, disasters risk management and mitigation (DoCC n.d.). Although significant effort has been put into establishing this institutional architecture, practical efforts remain nascent. Current measures are mostly integrated into disaster management and adaptation, creating silos and gaps. Respondents describe that legal and institutional frameworks lack clarity and require further development, including dedicated loss and damage legislation and financing mechanisms.

Vanuatu is moving towards treating loss and damage as an independent policy area. This includes the establishment of the Loss and Damage Policy and Implementation Roadmap in 2025 and a long-term nationally determined programme, initiated in 2025 with Santiago Network support (DoCC 2025). The former provides a policy framework and the latter develops this through four aims: creating a vision, identifying capacity gaps, sharing knowledge and building skills, and preparing a funding request to the FRLD (MFA Denmark 2025). Other recent policy developments also showcase rapid advancement of L&D relevant policy in Vanuatu, including policies on disaster- and climate-related displacement, social protection and financing of disaster risk (MoCC 2025, p. 29).

The establishment of a national loss and damage policy is, however, not fully reflected in dedicated sub-national efforts and institutions. Current sub-national efforts are generally focused on disaster assessments and response, climate change adaptation and resilience. However, relevant local initiatives and response efforts are extensive and include formal state efforts, community-led efforts and activities supported through international and domestic NGOs. In practice, there are thus many diverse actors involved in loss and damage related efforts. Respondents indicate that coordination across government levels is weak, especially downward communication from national to sub-national levels. Sub-national actors often provide input without feedback and sometimes pursue conflicting goals. Respondents call for mechanisms to strengthen two-way communication and formalize sub-national input. Partnerships with donors, IOs, NGOs and CBOs are strong.

Participation exists through NGO consultations, the National Advisory Board (NAB), sectoral planning, Area Councils, Provincial Disaster Committees and assessments by Somali Disaster Management Agency (SoDMA) or donors. However, input is often informal with limited policy impact. Marginalized groups—geographically isolated, socioeconomically disadvantaged, youth, women, displaced persons and people with disabilities—are poorly integrated. Local and traditional knowledge is used primarily by non-state and inconsistently by state actors. Respondents stress improving engagement for underrepresented groups and communicating in accessible ways, such as local languages.

> **While inclusive mechanisms exist, they are unevenly applied across regions. Strengthening formal structures for participation, feedback loops, and follow-up on community input would enhance overall governance.**
>
> *– International non-state actor, Vanuatu*

5.1.5 Viet Nam

Losses and damages in Viet Nam are extensive but have not been prioritized as an independent policy area. Rather, they are incorporated into climate and especially disaster policy and response, which are well-established from national to village levels. Policy direction is set by the national level, and area-specific planning and implementation are decentralized to sub-national levels. L&D is emerging in key policies and documents including the Law on Environmental Protection (2020), National Strategy on Climate Change to 2050 (2022), Updated NDC (2022) and Viet Nam NAP Vision to 2050 (2023). Institutionally, L&D responsibilities rest with the Ministry of Agriculture and Environment and Civil Defence committees from national to commune levels. Mass Organizations, such as Women's and Farmers' Unions as well as international organizations, are also highly active.

In practice, efforts to respond to L&D are situated largely within disaster protection and response or within relevant sectors. Institutional arrangements, while robust, remain focused on disaster preparedness and economic losses to homes, infrastructure and livelihoods. Gaps persist in addressing non-economic losses and slow-onset impacts.

Disaster-related coordination is highly structured, with clear roles at all levels through Civil Defence Committees and local rapid response teams, integrated into decision-making bodies. However, cross-sectoral coordination is limited, and climate-related health and social impacts are poorly integrated. Non-economic losses—psychosocial, cultural, biodiversity—are also not well captured despite growing recognition (e.g., Ayeb-Karlsson *et al*. 2022). Respondents stress the need to integrate disaster, adaptation and loss and damage activities into development planning.

Recent changes include merging disaster and climate ministries into the Ministry of Agriculture and Environment and restructuring disaster committees into Civil Defence Committees with broader mandates—part of current state restructuring. Decentralization to larger communes after district-level elimination is ongoing.

Participatory governance remains a weakness. Formal non-state participation is limited to Mass Organizations and minority and vulnerable groups are poorly represented. NGO and research input occurs at a limited scale and often informally, though is often welcomed. Nationally, engagement with international organizations (e.g., UNDP, GIZ, CARE, Oxfam) exists but is reportedly declining.

> **In the past, coordination between national and sub-national levels, both vertically and across sectors, has been a challenge when it comes to climate change issues. With the recent government restructuring, including the merging of MONRE and MARD and the merging of many provinces, I hope coordination will improve. These changes could help align efforts better, both for overall climate response and for addressing loss and damage in particular.**
>
> *– International non-state actor*

5.1.6 Zambia

There is currently no central coordinating body for loss and damage in Zambia and existing responses are limited and fragmented. Lack of standardized procedures and fragmented institutional roles undermine systematic state efforts to address felt losses and damages in key economic and social sectors. Non-economic losses and damages are inadequately captured, also speaking to the lack of coordination and opportunity for enhanced coordination within institutional efforts (Banda *et al*. 2022).

Zambia's Disaster Management and Mitigation Unit (DMMU), the Water Resources Management Authority (WARMA) and the Zambia Environmental Management Agency (ZEMA) are mandated to respond to climate disasters. They are the main bodies overseeing losses and damages in Zambia, as they largely lead the country's disaster responses. DMMU has local offices, where local data is collected. However, locally collected data does not always flow into national frameworks and awareness, and fragmented mandates and insufficient funding to these agencies hamper consistent efforts.

Legislation, such as the Environmental Management Act, foresees participatory governance in environmental matters. Several stakeholders from state and non-state organizations have expressed the view that the current administration is very interested in cooperating with communities and non-state actors, particularly on matters related to climate change, which the country is exponentially vulnerable to. However, the implementation of this agenda is largely dependent on each of the country's sectors, further supporting a rather siloed *status quo*.

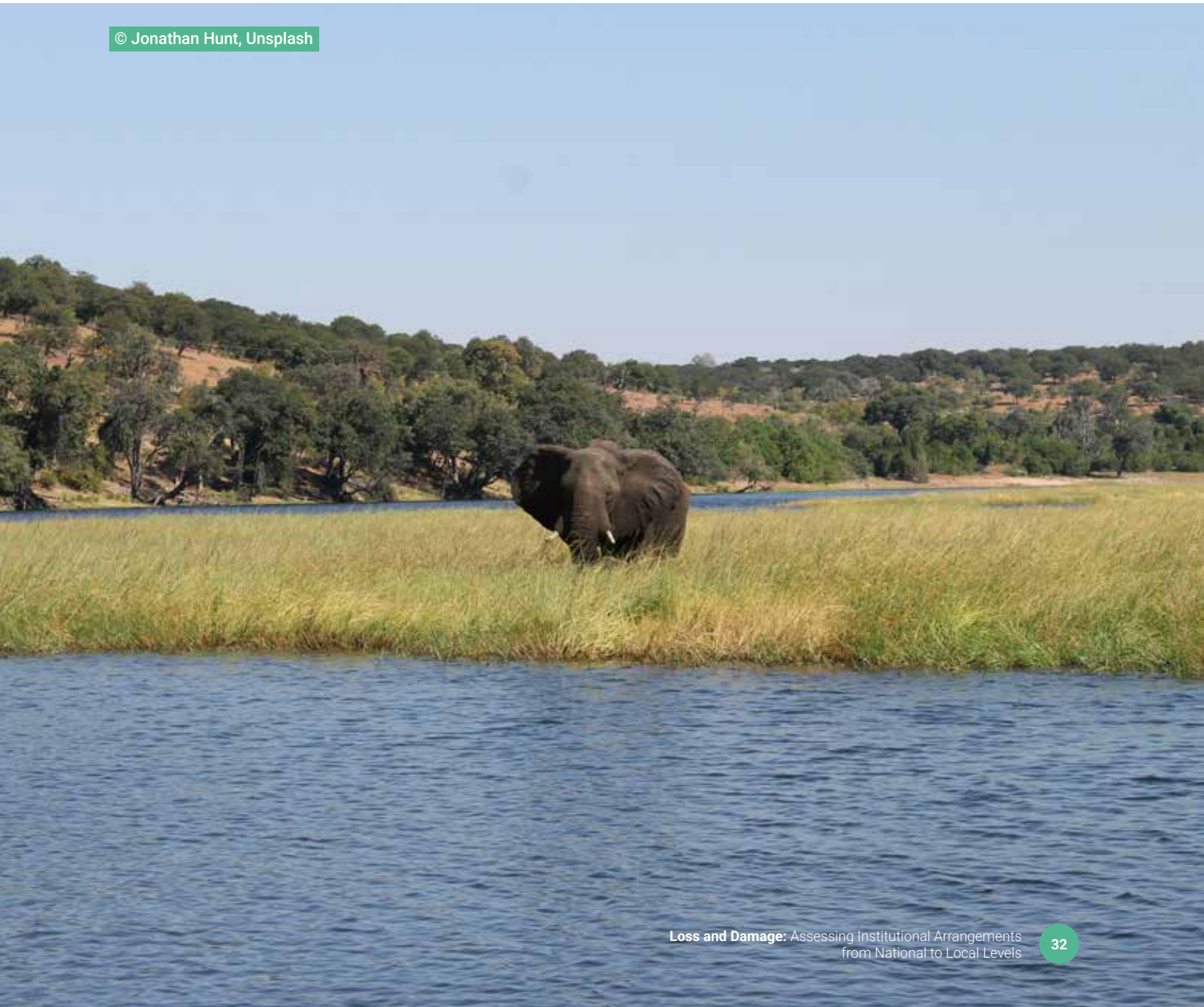

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Table 1.
Summary assessment of institutional arrangements, coordination and participatory processes

Source: Authors' assessment

Scale: 1 = Very limited/absent; 2 = Emerging but fragmented; 3 = Moderate with gaps; 4 = Well-developed with room for improvement; 5 = Strong and systematic

Note: Vanuatu scores 4 for explicit L&D policy due to its dedicated Loss and Damage Policy and implementation roadmap, which is established and needs to be translated to explicit mandates and roles, also sub-nationally. Other countries embed L&D within broader climate/disaster frameworks without stand-alone mandates.

This and subsequent summary assessments are based on ratings gathered in stakeholder consultations as well as institutional mapping and document and policy review.

Category	India	Mauritius	Somalia	Vanuatu	Vietnam	Zambia	Cross-country average
Explicit L&D policy or mandate	2	2	2	4	3	1	2.3
Horizontal coordination across sectors	3	2	2	3	3	2	2.5
Vertical integration (national-local)	3	2	2	3	3	2	2.5
Participatory governance mechanisms	3	2	2	3	3	2	2.5
Inclusion of vulnerable groups	2	2	2	3	2	2	2.2
Total score (of 25)	**13**	**10**	**10**	**16**	**14**	**9**	**12**

Table 1 shows the cross-country average for each institutional dimension, summarising overall development on the 1–5 scale. Explicit L&D policy or mandate (2.3) and inclusion of vulnerable groups (2.2) are lowest, indicating emerging but fragmented arrangements, while horizontal coordination, vertical integration and participatory governance (all 2.5) are moderately developed but still marked by significant gaps.

Also total score per country (sum across all five dimensions) ranges from 16 in Vanuatu, 14 in Viet Nam, 13 in India, 10 in Mauritius and Somalia, to 9 in Zambia. This 7-point spread and a cross-country average of 12.0 out of 25 indicate early-to-moderate institutional development, with significant scope for strengthening.

5.2 Data Sharing, Reporting and Technical Systems

This subsection assesses systems for collecting, sharing and reporting loss and damage (L&D) data. L&D data is emerging as a critical gap that limits understanding of L&D impacts and hampers response efforts and support (McQuistan et al. 2022). The section examines: (i) disaster loss databases and sectoral monitoring systems; (ii) coverage of economic and non-economic losses; (iii) treatment of rapid- and slow-onset impacts; (iv) data flows across governance levels; (v) data quality and accessibility; and (vi) alignment with international frameworks (ETF, Sendai, SDGs). Country analyses show that most systems focus on economic losses from rapid-onset events, with major gaps in non-economic losses, slow-onset impacts and consistent local-to-national data reporting.

5.2.1 India

National systems for loss and damage data and reporting in India exist but remain fragmented and largely focused on economic losses, resulting in uneven coverage and limited comparability across states and sectors (Government of India 2005; Government of India 2009). Although multiple institutions collect post-disaster data, inconsistencies in methods and weak consolidation reduce their usefulness for national analysis.

A National Disaster Management Information System (NDMIS) is in place, but its integration with state and situational reporting remains unclear. Post-disaster needs assessments (PDNAs) and local emergency reports are conducted unevenly and tend to prioritize loss of life and property damage, while sectoral loss estimates remain siloed across ministries (Government of India 2009).

Non-economic loss and damage is underrepresented, with health data focusing mainly on mortality and disease rather than well-being or long-term impacts, and climate-related migration and displacement captured inconsistently. Other vulnerable sectors, including biodiversity and education, also lack systematic data. Initiatives such as ALL ACT's Loss and Damage Research Observatory aim to address some of these methodological gaps (ALL ACT 2023).

Technical systems mirror these challenges: early warning systems have improved but remain uneven, PDNAs and anticipatory action are applied inconsistently, and cross-sector data systems struggle with interoperability, limiting integrated loss and damage analysis (Government of India 2009).

> **Conducting PDNAs seem to be an exception and not the norm.**
>
> *– National non-state actor, India*

Stakeholders emphasize the need for stronger data harmonization, clearer institutional roles and integrated national and state databases covering both economic and non-economic losses. While the National Disaster Management Authority has begun to move in this direction, progress remains limited, underscoring the importance of collaboration with NGOs, community-based organizations and research institutions to fill persistent data gaps.

5.2.2 Mauritius

In Mauritius, data collection on climate-related impacts remains fragmented and is predominantly oriented towards documenting economic losses, particularly damage to physical infrastructure. For example, while information on damage to health infrastructure is collected, there is very limited data on the physical and mental health impact of natural disasters on affected populations. Data collection systems are in place but currently do not meet the country's operational needs.

Data collection is typically conducted in silos, with limited coordination or data sharing between institutions and no centralized data system in place. Various actors collect data for their own purposes: NGO representatives mentioned that they gather information to inform their emergency response. The Ministry of Housing and Land has records on damaged social housing, the Ministry of Health and Wellness collects information on damaged healthcare infrastructure, and the Agro-Industry Ministry gathers data on the economic losses in their sector. Although local authorities report to the district council after disasters, there is no structured data collection procedure and a lack of expertise on a local level. One non-state actor noted that a wider government-led needs assessment was done after a cyclone in 2024. The answers of respondents were typically focused on post-emergency data collection, indicating a lack of data gathered about the consequences of slow-onset events. Data is often collected through claims for help or reconstruction, typically in person or over the phone. While this provides valuable information, it is not a systematic approach and fails to capture the full extent of losses.

The National Disaster Risk Reduction and Management Centre (NDRRMC) is considered the central institution in disaster management and data collection. Its work is aligned with the Sendai Framework, which covers several targets, including information gathering on financial flows and damaged infrastructure. The NDRRMC coordinates with specific stakeholders to inform these targets. A new data collection system, the Disaster Information Management System (DIMS), is currently under development at the NDRRMC. However, awareness of current governmental initiatives and responsibilities remains limited among non-state stakeholders, and certain initiatives are not fully understood.

Strengthening communication and coordination mechanisms would enhance transparency regarding institutional responsibilities, overlaps and gaps. Aligning methodologies and data quality between stakeholders, for example, between the NDRRMC and local authorities, was suggested to improve data sharing. Furthermore, respondents named limited financial resources and a gap in technical capacity building for government officers, NGOs and community members as limiting factors in loss and damage implementation.

5.2.3 Somalia

Government-led data collection on loss and damage in Somalia mainly occurs through post-disaster needs assessments (PDNAs) after major disasters. SoDMA, with support from the World Bank, EU and UN, uses a loss and damage tool to quantify economic losses in crops, livestock, livelihoods and infrastructure, including critical facilities like hospitals and schools. Non-economic losses are partially covered (health and displacement), but major gaps remain in areas such as mental health, biodiversity and cultural heritage. For smaller, local disasters, data collection is minimal, indicating a lack of comprehensive coverage. Regular drought needs assessments include some relevant data.

International partners like World Food Programme (WFP), World Health Organization (WHO) and the International Organization for Migration (IOM) collect and share data within clusters and with the government, but systematic data-sharing pipelines from local to national levels are lacking. State-level capacity for data collection varies widely; some states lack technical and human resources, while others have better tools. Across all states, weak infrastructure and processes for information sharing remain a common challenge. The Federal Somali Disaster Management Agency is establishing a national coordination platform, but technical and funding gaps persist.

> **Whilst there is a reporting system, it needs more structure, more building up to become robust, and more channelled, so clear channels of how the data flows from the local level until it reaches the government.**
>
> *– International non-state actor, Somalia*

5.2.4 Vanuatu

In Vanuatu, data on losses and damages is integrated into disaster response and climate adaptation reporting systems, including National Disaster Management Office (NDMO) assessments, post-disaster needs assessments and climate division reporting. Data flows from local and provincial assessments to national systems, but respondents note that consistency and integration vary.

PDNAs are the primary source of loss and damage data, which is largely reactive and event-based rather than systematic. Long-term trends and slow-onset climate impacts are poorly documented. While both economic and non-economic losses are recorded, data on economic losses is more robust. Non-economic data includes mobility and displacement, ecosystems and biodiversity, health, and cultural heritage—indicating more developed efforts to capture these dimensions than in other country contexts.

To improve data collection and reporting, respondents recommend clearer protocols, an integrated monitoring tool accessible to relevant state actors and data-sharing frameworks linking local assessments and national systems. Strengthening the capacity of provincial governments and Area Councils is seen as key to improving coverage and quality.

> **Economic data is more systematically collected, particularly following disasters. However, gaps remain in real-time tracking, verification and integration across agencies... Non-economic data collection is still evolving and often overlooked or inconsistently documented. There is a need for more structured tools and cross-sector collaboration...**
>
> *– International non-state actor, Vanuatu*



5.2.5 Viet Nam

Viet Nam's disaster-related data and reporting systems are well-established through the damage assessment and needs assessment (DANA), supported by international actors. Coverage is extensive for economic and material impacts—damage to infrastructure, homes, livelihoods and casualties. Some data exists on slow-onset impacts like salinization and coastal change. However, respondents note quality issues, including inconsistent reporting and subjective damage levels, compounded by challenging disaster conditions during assessments. Better training for local officials and clearer criteria are recommended.

Significant gaps remain in non-economic loss data, including health, education, biodiversity, psychosocial and cultural impacts, and certain slow-onset events like heat spells. Such data is usually collected by international organizations during disaster response. Lack of systematized NELD data hinders informed responses; respondents stress the need for policy and training to address these losses.

Currently, data informs disaster response and compensation but is underutilized for policymaking, planning, projections and awareness. Respondents suggest leveraging data more proactively for future strategies.

> **We can report only things they can quantify, but qualitative [impacts], we don't know how to report them, so when households have different feelings, experience it differently, we don't know how to report it. We are not sure how to support them.**
>
> *– Sub-national state actor, Viet Nam*

5.2.6 Zambia

While structures exist at different levels (national, sub-national, local), the lack of clear operating procedures, for example, on reporting of loss and damage experiences and data management systems, hinders full integration between vertical levels in Zambia. Furthermore, it has been observed and voiced by stakeholders that vertical cooperation between national and local authorities appears to be taking place in silos. For example, the Ministry of Finance cooperates with local governments on their budgets, although this cooperation does not specifically address finance regarding loss and damage so far.

At the national level, policies, coordination and resources are the strongest, although still fragmented, but this diminishes at sub-national levels, particularly in more rural areas of the country.

> **However, these systems remain institution-specific and are not linked to a unified, national platform or clearinghouse for climate change and loss and damage. Reports are handled internally […] rather than integrated into a broader national L&D framework.**
>
> *- National non-state actor, Zambia*

Stakeholder informants added that the bulk of Zambia's loss and damage experiences does not follow a specific framework and methodology, which hinders the development of a solid baseline with temporal timescales and patterned datasets across Zambia. One local government respondent noted that formal procedures are in place, but the challenge persists with the implementation of the policies, rather than with their alignment.

The coordination of emergency response is generally perceived as better than that of data sharing, although it still offers room for improvement. Response activities are described as largely reactive after disasters

rather than including preventative approaches. The activation of clusters in case of emergencies, which meet on a daily/weekly basis, was named as a key strength in disaster response.

Table 2.
Summary assessment of data sharing, reporting and technical systems

Source: *Authors' assessment*

Scale: *1 = Very limited/absent; 2 = Emerging but fragmented; 3 = Moderate with gaps; 4 = Well-developed with room for improvement; 5 = Strong and systematic*

Note: *India and Viet Nam score higher on disaster loss databases due to established PDNA and DANA systems, respectively, though gaps remain in non-economic and slow-onset data across all countries.*

Category	India	Mauritius	Somalia	Vanuatu	Vietnam	Zambia	Cross-country average
Disaster loss database coverage	4	3	2	3	4	3	3.2
Non-economic loss data capture	2	2	1	2	2	1	1.7
Slow-onset impact monitoring	2	2	1	2	2	2	1.8
Data flows (local to national)	3	2	1	2	3	2	2.2
Data quality and consistency	3	3	2	2	3	2	2.5
International reporting linkages	3	3	2	3	3	2	2.7
Total score (of 30)	**17**	**15**	**9**	**14**	**17**	**12**	**14**

In table 2 Cross-country average shows the average score across the six countries for each data dimension, indicating the overall level of system development on the 1–5 scale. A value of 3.2 for disaster loss database coverage suggests that, on average, systems are between moderate and well-developed, while averages of 1.7–1.8 for non-economic loss data capture and slow-onset impact monitoring highlight areas where data systems are still very limited or only emerging. Averages of 2.2–2.7 for data flows, data quality and international reporting linkages indicate that these elements are somewhat more established but remain partial and uneven across countries.

Total score per country ranges from 17 in India and Viet Nam, 15 in Mauritius, 14 in Vanuatu, 12 in Zambia, to 9 in Somalia, highlighting significant variation in overall data-system maturity.

5.3 Operational Capacity

This subsection examines the availability of human, technical and financial resources needed to assess, report on and respond to loss and damage across governance levels. Beyond the presence of relevant institutions, mandates and data on L&D, human, technical and financial resources are crucial for response. This thematic area therefore maps capacity status and gaps across state levels and actor types to identify key sites for development and support. Key analytical categories include: (i) technical capacity for L&D assessment and forecasting; (ii) human resource capacity and training needs; (iii) financial resources and funding mechanisms; (iv) availability and quality of technical tools and systems; and (v) distribution of capacity across national, sub-national and local levels. The country analyses consistently reveal that capacity gaps are most severe at sub-national and local levels, with shortfalls in addressing non-economic losses, slow-onset impacts and systematic data collection.

5.3.1 India

Capacity for addressing loss and damage (L&D) in India shows a mix of emerging strengths and areas where further development would be beneficial. Existing disaster management institutions and tools provide an important foundation, and L&D is increasingly recognized as a relevant policy theme within broader disaster risk management and climate adaptation efforts. On the technical side, most experience with loss and damage assessment currently lies with national agencies, research organizations and civil society actors, while state and municipal authorities are at varying stages of awareness and practical experience. This can mean that sub-national authorities draw on external analytical support for some tasks, particularly when piloting new approaches. Work on non-economic loss and damage—such as psychosocial impacts, cultural heritage, ecosystems and long-term livelihood changes—is still developing in many government systems, where existing procedures and formats have historically focused more on economic indicators. Institutionally, responsibilities linked to L&D are spread across disaster management, climate change, sectoral line departments and social protection, reflecting the cross-cutting nature of the topic. In practice, this can lead to variation in how issues like slow-onset processes or climate-related migration are addressed within different mandates. Coordination platforms and consultation processes already exist for specific hazards and themes, and discussions around loss and damage are gradually being integrated into these spaces, particularly where national and sub-national actors work together. Funding and programme design also influence how capacity develops over time. Several innovative assessments and pilot activities related to L&D have been implemented through time-bound projects and partnerships, which provide valuable learning but may not always continue in the same form once projects end. At the same time, domestic budget lines are often organized by sector, which can make it more challenging to support cross-cutting work or to systematically resource training, data improvements and inter-departmental collaboration linked to L&D.

5.3.2 Mauritius

The concept of "loss and damage" in Mauritius remains limited in awareness across key stakeholder groups, including government officials, NGOs and local communities. This gap in understanding is compounded by a shortage of accessible information and data related to loss and damage, hindering comprehensive engagement and effective response at all levels.

This problem goes hand in hand with insufficient training and capacity-building. Even among stakeholders familiar with the topic, practical knowledge regarding loss and damage is limited. This gap includes technical knowledge, such as data collection and reporting, knowledge on loss and damage support and opportunities, as well as expertise regarding an effective integration of loss and damage into legislative frameworks. Furthermore, the lack of structured mechanisms for knowledge exchange contributes to the knowledge deficit. Although loss and damage affects various sectors, stakeholders not directly working in this field face significant challenges of accessing relevant information or participating in relevant workshops.

Capacity gaps are especially prevalent in the agricultural and urban/local planning sectors, which are among the most exposed to climate-related risks and natural disasters. The gaps affect different stakeholders, including policymakers, sub-national authorities and domestic NGOs, limiting the country's capacity to respond to the increasing effects of climate change.

> **At village level, we see the damages every cyclone or flood season, coastal erosion, lagoon pollution, damaged houses, but we don't have tools to measure or report it as loss and damage. There should be stronger connection between the local councils and national institutions, with training and local data systems so that our experience can inform national plans. "**
>
> *– Sub-national state actor, Mauritius*

Some initiatives have been established within the broader disaster management framework, such as the Community Disaster Response Programme, to teach communities about emergency disaster response. In terms of loss and damage, communities are, in the current state, not sufficiently equipped with the knowledge and skills to actively respond to disasters and take an active role in policy design. Although government initiatives in community training were started, some failed to achieve their goal due to inadequate outreach and communication strategies.

Early warning systems remain limited in scope, not covering certain high risks, such as flash floods or torrential rain. Warnings can reach the population, for example, through SMS, the radio or community announcements. The NDRRMC is developing an Early Warning System for All, which is currently in a testing phase, although awareness of these efforts remains low. Similarly, evacuation plans for flood-prone areas were reported to be in development, although further information on this was not provided.

Anticipatory actions are being implemented in some instances. For example, the NDRRMC conducted community training, especially for youth, and practiced local simulations and contingency planning. The Ministry of Environment has also undertaken other preventative actions, such as cleaning drains, although the coordination and continuity behind these activities remain unclear.

Respondents suggested increased capacity-building on all levels. Particularly on the local level, the gap regarding data collection and disaster management should be addressed using trainings and tools. Furthermore, it was suggested to improve access to information and exchange for non-experts and people working in fields related to loss and damage to enhance successful participatory governance and cross-sectoral understanding.

5.3.3 Somalia

Interviews reveal substantial gaps in technical capacity for forecasting, early warning, anticipatory action and climate data sharing, particularly at state and local levels. A national meteorological agency is being established to reduce fragmentation in meteorology, climatology and hydrology systems. Support from donors and international organizations has improved national level forecasting and early warning systems, but these remain insufficiently localized, with limited accuracy for local contexts.

State level officials report varying capacities, with limited coverage and functionality of existing early warning systems. Systems are not adequately localized, as data is mostly generated at the national level with low local accuracy. Officials also highlight essential tools for weather forecasting and climate monitoring at state and local levels. Another key issue is insufficient climate data sharing across sectors due to ministerial silos and limited technical capacity.

Human resource capacity is uneven across governance levels. While the national government benefits from greater funding, gaps persist, including a shortage of policy advisors to translate technical knowledge into robust policy. At state and district levels, severe funding shortages hinder hiring, training and retention of expert staff, leaving institutions

without the necessary skills and tools. Local NGOs face similar challenges, often relying on international NGOs for expertise and resources. Knowledge of climate change and loss and damage is generally low at local levels. Capacity constraints affect nearly all sectors, with Natural Resource Management repeatedly identified as the most under-resourced.

> **Not only agriculture but other sectors also need consistent climate data. But with us, the problem is that we don't have meteorology agents. So, sectors which need specific climate data have to install some stations to capture it. So most of them lack these data sources. As such, climate data is not well integrated at all in Somalia. It's only now that we are thinking about establishing a stand-alone agency that deals with meteorology.**
>
> *– National state actor, Somalia*

5.3.4 Vanuatu

Technical capacity in Vanuatu is largely built on disaster response capabilities, with strengths in early warning systems and post-disaster needs assessments, and continuing improvements. Gaps include assessing slow-onset climate impacts, inter-agency data sharing, real-time and locally specific data collection, anticipatory action and the ability to analyse data for planning—limiting the usefulness of collected data.

Human resource capacity is more robust at national level and on central islands, while outer islands lack trained staff and resources. Dedicated personnel are scarce across all government levels, and projects supported by donors and international organizations often operate with limited alignment to national systems. Critical sectors needing capacity include health, food security, agriculture, natural resource management and infrastructure. Governance and financial constraints, such as unclear roles and insufficient resources for local response, ompound these issues. NGOs often fill gaps, though this can result in uneven capacity and response locally.


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> **[There are] few trained staff in rural areas. NGOs lead but can't reach everywhere.**
>
> *– Sub-national non-state actor, Vanuatu*

5.3.5 Viet Nam

Viet Nam has strong forecasting and early warning systems, but respondents note the need for modernization and better application. For instance, digital tools- such as mobile apps and reporting systems could improve disaster reporting and citizen engagement, and databases with advanced functionalities could enable better use of collected data for planning.

Human resource capacity requires significant strengthening within loss and damage as a new area of policy and response. Respondents call for training and awareness on loss and damage for state officials, especially at sub-national levels, supported by a clear legal definition and institutional mandates. Capacity development is particularly needed for addressing non-economic and slow-onset impacts, which are emerging but poorly understood. Increased collaboration between state and non-state actors could enhance complementary capacities.

Disaster response faces capacity and resource constraints. Sub-national committees include officials from multiple departments. This structure supports cross-sector integration, but at the cost of dedicated disaster staff and specialized capacity. Officials also lack time and resources for regular training.

> **Regarding the capacity of people of different levels, especially commune level or even province, there should be someone that is in charge because annually they change the staff and there is high turnover. There should be someone dedicated over longer time.**
>
> *– Sub-national state actor, Viet Nam*

5.3.6 Zambia

As outlined in Section 4.2.3, Zambia faces a great level of capacity gaps, largely derived from siloed, parallel, and sometimes competing mandates and agendas of different institutions, and even within the same institution. While capacity gaps exist at all levels, particular sub-national authorities have a high demand for training. One stakeholder suggested that sectors are particularly vulnerable if relevant institutions exist only on a national and not sub-national or local level. Apart from raising awareness of loss and damage in general, there is also an urgent need to train personnel in technical skills like assessment and reporting, and in accessing connected opportunities for support.

Furthermore, financial constraints contribute to the challenges of building loss and damage capacities. Non-experts like local communities would also benefit from continuous knowledge transfer. Technical gaps include inadequate or outdated tools and data systems for loss and damage quantification, data collection and reporting. Technical systems exist and are in use, and the digitization of loss and damage-related fields has improved over the years. However, experts engaged in the L&D study highlighted that the current systems are inadequate or outdated and need adjustments until they are fully functional. Further challenges are the lack of a centralized digital data system and the limited technical capacity of potential users of those systems.

> **Key gaps in current systems include the absence of simple, accessible early warning systems and the lack of centralized data storage. While early warning mechanisms are being developed, they need to be simplified for broader community use.**
>
> *– Sub-national state actor, Zambia*

Table 3.
Summary assessment of operational capacity

Source: *Authors' assessment*

Scale: *1 = Very limited/absent; 2 = Emerging but fragmented; 3 = Moderate with gaps; 4 = Well-developed with room for improvement; 5 = Strong and systematic*

Note: *Capacity is consistently weakest at sub-national and local levels across all countries. Somalia faces the most severe constraints due to fragility, conflict and limited institutional infrastructure, and existing L&D capacities are heavily supported by development and humanitarian partners.*

Category	India	Mauritius	Somalia	Vanuatu	Viet Nam	Zambia	Cross-country average
Technical capacity (L&D assessment)	3	2	2	2	3	2	2.3
Human resource capacity	3	2	2	3	3	2	2.5
Financial resources for L&D	3	2	1	2	3	2	2.2
Technical tools and systems	3	2	2	2	3	2	2.3
Sub-national/local capacity	2	2	1	2	3	1	1.8
Total score (of 25)	**14**	**10**	**8**	**11**	**15**	**9**	**11.2**

Table 3 cross-country average shows the arithmetic mean score across the six countries for each operational capacity dimension, indicating the overall level of development on the 1–5 scale. Averages of 2.3–2.5 for technical capacity, human resources, financial resources and tools suggest that these elements are generally emerging to moderate, but not yet strong or systematic. By contrast, the lower average of 1.8 for sub-national/local capacity highlights a shared weakness in extending loss and damage capacities beyond national institutions.

Total score per country (sum across all five dimensions) ranges from 15 in Viet Nam and 14 in India to 11 in Vanuatu, 10 in Mauritius, 9 in Zambia and 8 in Somalia. This distribution shows that some countries have relatively stronger core technical and human resource bases, while others face more pronounced constraints, especially in terms of local-level capacity to assess and respond to loss and damage.

5.4 Learning and Scaling Practices

This subsection examines mechanisms for documenting, sharing and replicating effective L&D practices within and across countries. As L&D is a complex and developing issue and area of practice, effective learning and scaling of new insights is vital. This subsection therefore examines the analytical categories: (i) platforms for knowledge exchange and peer learning; (ii) documentation and dissemination of innovative approaches; (iii) mechanisms for scaling successful pilots; (iv) engagement with international networks and technical support; and (v) institutional learning loops that feed into policy and practice. The country analyses show that while innovative approaches exist- such as community-based assessments and integrated climate-disaster planning, these often remain project-based and isolated, with limited institutionalization or systematic scaling.

5.4.1 India

While scalable practices exist, the institutionalization of scaling them up remains slow. Positive examples of knowledge exchange for scaling are the annual national workshops organized by the National Disaster Management Authority (NDMA). These focus on heatwaves and provide opportunities for State Disaster Management Authorities (SDMAs), non-state actors and researchers to present their ideas and practices to fellow practitioners.

A key challenge of learning and scaling of successful practices is the lack of a clear L&D governance structure, resulting in fragmented mandates. Another challenge is funding. On the one hand, many projects are donor dependent, but on the other hand, the implementation of national mechanisms is slow. For example, the Disaster Mitigation Fund remains underutilized, while several states have not yet established their own funding for this purpose. Furthermore, rigid sectoral budgets make implementation even more difficult, aligning with the overall lack of L&D coordination.

5.4.2 Mauritius

Although there is currently no systematic framework in place to document and disseminate successful community projects, several local initiatives demonstrate significant potential for wider replication. The continuity of funding was identified by respondents as a primary barrier to sustaining and scaling these practices. Additionally, international training programmes have contributed to the establishment of community disaster management initiatives across Mauritius. However, responses related to scaling processes were limited, with many respondents unable to provide concrete examples, highlighting a critical gap in institutional arrangements for supporting the expansion of effective community-based interventions.

> **For example, we had some officers who went to Japan regarding community. When they came back to Mauritius, they implemented a 'Community Disaster Response Programme'. This is replicated in vulnerable communities throughout the island. Those communities are empowered to respond to catastrophes/disasters.**
>
> *– National state actor, Mauritius*

5.4.3 Somalia

There are ambitions to build on and scale successful local practices from local to national level, however, these are limited by resource and funding constraints and a lack of bottom-up governance generally. This is also despite positive examples of local programmes or community-led initiatives. However, some learning has been occurring over time due to frequent and repeated disasters and rise in related assessments, with learnings from previous disasters influencing responses to the next.

UN agencies have also driven learning and scaling practices, for instance by promoting replication of successful local practices. However, this is at times also hindered by changing and diverging donor agendas as well as a lack of collaboration and knowledge sharing between humanitarian and development groups, e.g. SomReP and BRCiS.

> **We are very good at piloting. But when it comes to documenting the successes from the pilots and then scaling, maybe not so much.**
>
> *– National non-state actor, Somalia*

5.4.4 Vanuatu

Respondents report barriers and limited opportunities to learning and scaling, with positive examples mainly involving state–non-state collaborations. NGO-led community-based adaptation and traditional knowledge integration have influenced provincial planning and been scaled through policies like the National Adaptation Plan, though these remain exceptions.

There is significant potential to build on numerous community-based models showcasing strong local leadership and innovation, which could inform loss and damage efforts. Opportunities for institutionalization and scaling include through provincial climate/disaster planning, DoCC guidelines and inclusion in the NAB Portal to replicate practices across islands.

Key limitations include lack of standardized frameworks for learning and scaling, limited decentralization of authority and resources, weak coordination between ministries and local authorities, and absence of formal mechanisms to integrate traditional knowledge and community-led initiatives into national policies. Respondents also recommend funding frameworks enabling direct community or local organization access to scale successful models.


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> **Some villages share good practices through churches or youth groups, but these are not scaled up formally... [There is] lack of funding, no clear support system to grow inclusive community programmes.**
>
> *– Sub-national non-state actor, Vanuatu*

5.4.5 Viet Nam

Respondents stress the need to expand opportunities for sharing and scaling successful loss and damage efforts. A key barrier is the absence of clear institutional roles for loss and damage, especially for non-economic and slow-onset impacts, limiting formal engagement and learning.

Challenges also include gaps across provinces and reliance on vertical reporting from national to local levels, which restricts cross-provincial exchange. International actors often work within specific provinces, reducing scalability and resource distribution even during disasters.

Opportunities exist through provincial input to National Target Plans and Five-Year Action Plans, and some successful local initiatives have been integrated into higher-level planning. Formalizing non-state actor involvement could add value, as they pilot innovative approaches, provide localized insights and engage vulnerable groups.

Current institutional reforms offer new prospects: Civil Defense Committees replacing disaster-focused bodies may foster cross-sectoral learning, while greater responsibility devolved to communes could boost local input and non-state engagement.

> **In Viet Nam, I think the biggest gap is usually in implementation. Loss and damage involves many sectors and levels of government, so challenges often come from weak coordination, lack of policy harmonization and limited capacity for planning and execution on the ground.**
>
> *– International non-state actor, Viet Nam*

5.4.6 Zambia

There are currently no formal mechanisms for systematically capturing and scaling lessons learned, although some locally successful, bottom-up practices show potential for expansion. These could be supported through the Community Development Fund, which allocates 30 million USD per constituency, including for environmental and emergency response activities, though awareness of and access to the fund remain limited.

Some knowledge-sharing mechanisms do exist. The Local Government Association of Zambia annually invites councils to submit best practices, and district-level bodies such as the District Development Coordinating Committee compile lessons from sector departments to inform wider planning processes. External actors, including GIZ and the Salvation Army, have also supported knowledge transfer through community-based workshops.

Despite these examples, scaling remains challenging. Differences in local capacities and resources limit replication, while cross-sector learning at the national level is weak. Financial constraints further hinder the expansion of successful practices, even where institutional learning occurs.

> **Yes, contextual differences between councils can act as barriers to replicating proven models. For example, some councils lack foundational tools like local area plans, which are already in place in more established areas like Lusaka. While there are opportunities for capacity building, such as training visits supported by partners like GIZ and the Salvation Army, these efforts highlight the disparities in institutional readiness and capacity across councils.**
>
> *– Sub-national state actor, Zambia*

A notable positive example of coordinated, participatory governance is found in the Ministry of Tourism's Community-Based Natural Resource Management (CBNRM) policy, which established Community Resource Boards at the chiefdom level through participatory processes. These boards support local decision-making on biodiversity conservation and document species loss. In contrast, participation in other loss- and damage-relevant sectors, such as health, education and agriculture, often exists in policy but lacks effective platforms for national and sub-national exchange.

Where public participation does occur, it frequently underrepresents vulnerable groups, including women, youth and persons with disabilities, and is further constrained by limited awareness of loss and damage concepts. Respondents emphasized the need for broader stakeholder engagement, systematic stakeholder mapping, clearer coordination procedures and defined institutional roles. Concerns were also raised that current loss and damage efforts tend to focus on urban areas, despite high vulnerability in rural communities.



Table 4.

Summary assessment of learning and scaling practices

Source: *Authors' assessment*

Scale: *1 = Very limited/absent; 2 = Emerging but fragmented; 3 = Moderate with gaps; 4 = Well-developed with room for improvement; 5 = Strong and systematic*

Note: *Vanuatu scores higher on international network engagement due to active participation in Pacific regional platforms and Santiago Network pilot activities. Scaling mechanisms remain weak across all countries, with most innovations remaining project-based.*

Category	India	Mauritius	Somalia	Vanuatu	Vietnam	Zambia	Cross-country average
Knowledge exchange platforms	3	2	2	3	2	2	2.3
Documentation of innovations	3	2	2	3	2	2	2.3
Mechanisms for scaling	2	2	1	2	3	2	2
International network engagement	3	3	2	4	3	3	3
Institutional learning loops	2	2	1	2	2	2	1.8
Total score (of 25)	**13**	**11**	**8**	**14**	**12**	**11**	**11.5**

Table 4 cross-country average shows the arithmetic mean score across the six countries for each learning and scaling dimension, with values mostly around 2.0–2.3, indicating that knowledge exchange, documentation and scaling mechanisms are emerging but not yet systematic, and **1.8** for institutional learning loops highlighting particularly weak feedback and adaptation processes.

Total score per country (sum across all five dimensions) ranges from 14 in Vanuatu and 13 in India to 12 in Viet Nam, 11 in Mauritius and Zambia, and 8 in Somalia, suggesting that while some countries engage more actively in networks and knowledge sharing, structured mechanisms to capture, learn from and scale loss and damage experiences remain limited overall.



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6 Comparative Review

Across the six country cases, loss and damage (L&D) governance is still quite fragmented, shaped by strong disaster-response traditions and major gaps in how slow-onset and non-economic losses are handled. L&D is increasingly recognized, but it is mostly treated as part of disaster risk management or climate adaptation, rather than as its own policy area. Progress towards more integrated, participatory and learning-based systems has been modest, and differences in legal foundations, patchy data and reporting, and weak pathways to scale up innovation limit how countries can connect to the evolving international L&D system and access support.

6.1 Governance, Mandates and Legal Anchoring

In all six countries, responsibility for loss and damage (L&D) is shared across multiple institutions and is generally handled within disaster risk management or climate adaptation frameworks, rather than being managed as a distinct policy area. India and Vietnam, for example, have relatively well-developed disaster management laws and policies, but L&D is still mostly implicit and handled through preparedness, relief and resilience work, without a clear mandate or lead institution (Government of India 2005; Government of India 2009). Mauritius, Vietnam, Somalia and Zambia mention L&D in climate or sectoral documents such as Mauritius' Climate Change Act and Somalia's NDC, but do not yet have dedicated L&D strategies, which leads to siloed institutions and unclear responsibilities (Government of Mauritius 2020). Vanuatu is an exception, with a Loss and Damage Policy, an Implementation Roadmap and a long-term national L&D programme, showing a move towards treating L&D as a stand-alone policy field, though important gaps remain in legal detail, financing arrangements and coordination across levels of government (DoCC 2025; MFA Denmark 2025).

Across all contexts, strong central-level control coexists with limited integration of sub-national and community levels. In Mauritius and Zambia, national disaster bodies concentrate decision-making authority, while local structures are primarily engaged during emergencies rather than in routine planning or priority-setting (Government of Mauritius 2020; Government of Zambia 2023). Somalia and Vanuatu face additional coordination challenges linked to volatile funding, leadership changes and federal–state or national–provincial tensions, constraining bottom-up influence on L&D priorities (DoCC 2025). Even in India and Viet Nam, where multi-level governance structures exist on paper, local authorities largely implement centrally defined programmes and have limited mandates or resources to shape L&D-relevant policy (Government of India 2009).

6.2 Impacts, Non-economic Losses and Data Systems

Across all six countries, assessments and reporting focus predominantly on economic and physical losses, particularly to housing, infrastructure, crops and productive sectors while non-economic losses (NELD), such as mental health impacts, cultural heritage loss, ecosystem degradation and social cohesion, remain systematically under-captured. In India, Mauritius, Zambia and Viet Nam non-economic impacts, including psychosocial stress, disrupted education, weakened social networks and biodiversity loss, are significant yet rarely appear in official databases or routine statistics (CMCC n.d.; World Bank Group 2021). Where NELD is more explicitly recognized, as in Vanuatu and parts of Somalia, documentation is usually project-based and linked to donor-funded initiatives, humanitarian assessments or research efforts rather than embedded in national monitoring frameworks (DoCC 2025).

Disaster response systems and data infrastructures are generally more developed than those addressing slow-onset processes and NELD. Countries rely on disaster loss databases, PDNAs or sectoral reporting to track acute events such as cyclones, floods and droughts, but these tools are seldom adapted to capture climate attribution, long-term well-being impacts or slow-onset hazards such as sea-level rise and desertification (UNDRR 2023a). Links between national data systems and international reporting frameworks including Biennial Transparency Reports,

Sendai Framework monitoring and SDG indicators remain partial, limiting the visibility of L&D needs in global processes (ICAT 2023; UNFCCC 2023d; United Nations 2023). This fragmented data landscape strengthens the focus on measurable economic losses and makes it harder to build consistent national loss and damage (L&D) baselines to support funding proposals, including those to the Fund for Responding to Loss and Damage (Climate Funds Update 2025; UNDP and WMO 2025).

6.3 Participation, Equity and Representation

All six countries have participatory mechanisms such as consultations, community meetings and NGO-facilitated processes, but these remain uneven, project-based and weakly embedded in binding decision-making. In India and Viet Nam, district and city-level instruments, including disaster management plans and heat action plans, rely on consultations and workshops, yet feedback into budget allocation and policy choices is limited (ICLEI South Asia 2024). Mauritius, Zambia and Somalia include participation provisions in environmental or climate laws, but in practice consultations often involve a narrow group of actors, with limited transparency on how inputs shape outcomes (Government of Mauritius 2020). In Vanuatu, national and provincial coordination platforms convene state and non-state actors, but community-level inputs are often informal and inconsistently reflected in national priorities or budgets (DoCC 2025).

Vulnerable and marginalized groups including women, persons with disabilities, remote communities, low-income rural households and displaced populations remain underrepresented across all cases. Although policy documents increasingly stress inclusion, sustained and meaningful participation is difficult to achieve, particularly at sub-national levels with limited capacity (Makondo and Thomas 2024). Traditional and local knowledge is acknowledged, especially in Somalia and Vanuatu, but its use is inconsistent and often mediated by external actors rather than embedded in state systems (DoCC 2025). These participation gaps constrain the identification of non-economic losses and weaken the legitimacy and effectiveness of L&D responses.



6.4 Implementation, Capacity and International Interfaces

Even where L&D strategies or roadmaps exist, implementation remains fragmented. Vanuatu continues to face challenges translating policy intent into coordinated action across sectors and levels (DoCC 2025; MFA Denmark 2025). In Mauritius, Viet Nam, Somalia and Zambia, L&D references in climate or sectoral plans are not matched by clear lead institutions, standard procedures or dedicated financing, resulting in heavy reliance on externally funded projects (Government of Mauritius 2020; Government of Zambia 2023). India and Viet Nam benefit from stronger disaster and climate institutions, but L&D-specific measures addressing slow-onset impacts and NELD remain secondary to broader adaptation and risk-reduction agendas.

Technical, human and financial capacity gaps are widespread, particularly at sub-national levels. Local disaster management offices collect valuable data and manage frontline responses but lack analytical resources, staff continuity and funding to influence national strategies (Government of Zambia 2023; UNDP and WMO 2025). Training on L&D concepts, NELD methodologies and integrated data systems is limited, and high staff turnover undermines institutional memory (UNDRR 2025). Promising practices such as community-based assessments, anticipatory action pilots and NGO-led NELD documentation remain isolated and project-based, with few mechanisms for systematic learning, codification or scaling (Loss and Damage Collaboration 2025; ICAT 2023).

Vertical links between data, decision-making and finance are weak in all six countries, which means local information is often used for immediate emergency response but rarely influences long-term investments or national positions under the UNFCCC (e.g., DoCC 2025; UNDRR 2025). In Somalia and Vanuatu, heavy reliance on humanitarian and development partners has created parallel data and funding channels that make government coordination, oversight and sustained capacity development more difficult (DoCC 2025).

The growing international loss and damage (L&D) architecture, covering the Warsaw International Mechanism, the Santiago Network and the Fund for Responding to Loss and Damage offers new entry points for support but also raises expectations about what countries should have in place (UNFCCC 2023a; UNFCC 2023b; UNFCC 2023c). To access technical assistance and finance, countries need coherent governance arrangements, credible baselines and clearly defined priorities, but these conditions are only partially met in most of the cases reviewed (Climate Funds Update 2025; UNDP and WMO 2025).

Peer-learning platforms can help countries exchange institutional experiences and approaches to non-economic loss and damage (NELD), yet their impact depends on stronger domestic coordination and systems that support continuous learning (Loss and Damage Collaboration 2025; NAP Global Network 2025). Overall, the comparative analysis points to common structural issues, fragmented arrangements, disaster-response legacies, gaps in participation and weak learning mechanisms as countries try to keep pace with a rapidly evolving international L&D landscape that increasingly calls for integrated, evidence-based and participatory governance (UNDRR 2025).

Table 5.
Cross-country overview of loss and damage institutional arrangements

Dimension	India	Mauritius	Somalia	Vanuatu	Vietnam	Zambia	Summary
L&D mandate	Embedded in disaster law and policy; no standalone L&D framework	No explicit L&D law; elements in Climate Change Act and disaster policy	L&D referenced in NDC/sector policies; architecture weak and aid-dependent	Dedicated L&D policy and roadmap emerging, but still nascent	L&D integrated in robust Disaster Risk Management (DRM) system, not as a distinct domain	No central L&D body; mandates fragmented across agencies	Usually implicit in disaster or adaptation domains
Fragmentation & centralisation	Multi-level DRM, but central steering and limited local agenda-setting	Strong central control; vertical integration mostly during crises	Federal–state tensions and volatile funding; central and UN actors dominate	National coordination via DoCC/NAB; weak downward communication	Structured DRM hierarchy; L&D mainly nested within it	Decentralized operations with weak national coherence	Fragmented or inconsistent L&D coordination across state levels
Focus of L&D efforts	Economic/physical losses prioritized; significant but under-measured NELD	Economic losses in tourism, housing and infrastructure dominate; NELD under-captured	Humanitarian focus on livelihoods and displacement; NELD recognized but not systematic	Strong recognition of existential and non-economic losses; documentation still project-based	Disaster-related economic losses central; slow-onset and NELD secondary	Economic losses central; NELD (identity, migration, social ties) largely invisible	Typical focus on ELD; focus on NELD often absent or weak
Data & reporting	Disaster data and PDNAs; weak coverage of slow-onset and NELD; limited explicit ETF links	Disaster and sectoral data; partial integration into BTR/Sendai/SDGs	Fragmented L&D data; minimal linkage to global frameworks	Early L&D baselines under roadmap; systems still nascent and donor-dependent	Established disaster databases; limited attribution and NELD indicators	Local data collected but poorly standardized and aggregated	Data reporting and systems typically disaster-based and often fragmented

Table 5.
Cross-country overview of loss and damage institutional arrangements (cont.)

Dimension	India	Mauritius	Somalia	Vanuatu	Vietnam	Zambia	Summary
Participation & equity	Community-based approaches used but uneven; weak links to decisions and budgets	Legal provisions for consultation; vulnerable groups remain underrepresented	Local/vulnerable groups consulted inconsistently; limited policy influence	Multiple forums (NAB, councils, NGOs), yet marginalized groups poorly integrated	Consultations occur, but decision-making remains largely top-down	Participation foreseen in law, but practice siloed and sector-dependent	Provisions for participation, but weak implementation; underrepresentation of vulnerable groups
Capacity, learning & finance flows	Evolving anticipatory capacity; sub-national gaps and weak learning systems	Compartmentalized institutions and limited local capacity; reform proposals on roles and coordination	Severe gaps at state/local levels; strong reliance on external actors	High policy intent; implementation, learning and scaling still heavily project driven; preparing to engage FRLD	Strong DRM capacity; limited L&D specific learning and finance targeting NELD/slow onset impacts	Funding and staffing constraints; innovations remain isolated pilots	Uneven capacity and resources across state levels; weak L&D learning mechanisms



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7 Conclusion

This report explores how loss and damage (L&D) is being governed in six different country contexts. It presents findings of a study assessing the development of L&D-related mandates, data systems and practices; recurring gaps and emerging strengths; and lessons for improving governance, reporting and access to support, including international climate finance. Study findings are based on a mixed-methods approach combining institutional mapping, policy and document analysis, and semi-structured interviews or written questionnaires with state and non-state stakeholders at multiple levels for six country cases. The comparative findings point to shared structural challenges across countries, while also highlighting context-specific innovations that can inform the development of more coherent, inclusive and fair approaches to loss and damage.

The report finds that governance arrangements for loss and damage (L&D) across the six case-study countries are beginning to emerge but remain fragmented and uneven. Existing approaches are still largely shaped by legacy disaster-response systems and tend to prioritize rapid-onset events, while slow-onset processes and non-economic losses and damages (NELD) remain weakly addressed, particularly at sub-national level. Although all countries have established disaster risk management and climate adaptation frameworks, L&D is generally treated as an implicit, cross-cutting issue rather than as a distinct policy domain with clearly defined mandates, dedicated resources and operational procedures (UNFCCC 2024a; IPCC 2023).

Data systems tend to be far stronger for sudden disasters and measurable economic losses than for slow-onset impacts and non-economic loss and damage. Most countries rely on disaster loss databases, post-disaster needs assessments and sectoral statistics, which rarely capture climate attribution or intangible impacts such as mental health, cultural heritage, ecosystem degradation or social cohesion. Data is often used to respond to specific climate events, but integration into forward-looking planning at national or local levels remains limited, linked to limitations in data systems and analysis capacities. National L&D-related data are not consistently connected to international reporting processes under the Enhanced Transparency Framework, the Sendai Framework and the SDGs, reducing the visibility of L&D needs and undermining efforts to mobilize finance, including through the Fund for Responding to Loss and Damage (FRLD).

Participatory governance is present but uneven, often project-based and weakly connected to binding decisions and budgets, with vulnerable and marginalized groups underrepresented in all six contexts. Traditional and local knowledge is acknowledged, especially in Somalia and Vanuatu, but remains inconsistently integrated into state systems, limiting recognition and documentation of non-economic and intangible losses. Capacity gaps such as technical, human and financial, are most pronounced at sub-national levels, where local authorities and communities are at the front line of climate impacts but have limited mandates, tools and resources to influence L&D-related policies, interventions and resource allocation.

At the global level, the rapidly evolving L&D architecture, through the Warsaw International Mechanism, the Santiago Network and the operationalization of the FRLD, creates new opportunities for support while placing additional demands on national systems. However, fragmented governance, siloed data and weak mechanisms for learning and scaling up mean that innovative local responses often remain isolated, with limited influence on national policy or international engagement. Overall, the findings underscore the need for more coherent, inclusive and adaptive L&D governance that can better connect local realities with global processes and support fair and effective responses to growing climate-related losses and damages.



8 Recommendations and Way Forward

To move away from fragmented, project-driven loss and damage (L&D) efforts and towards more coherent and integrated governance, the report outlines a set of broad recommendations that can be adapted to different country contexts and informed by emerging international guidance and support. These recommendations are organized around four connected areas: (i) mandates and coordination, (ii) data, indicators and reporting, (iii) participation and equity, and (iv) capacity, learning and finance.

- **Strengthen mandates and coordination**

Countries may reap extensive benefits from improved coordination of L&D-related efforts across policy areas, systems, stakeholders and administrative levels. Designating or reinforcing a national coordination mechanism for L&D would, for instance, improve coherence across climate change, disaster risk reduction (DRR), sectoral and social protection systems. Making L&D more explicit within existing climate, DRR and development frameworks such as National Adaptation Plans (NAPs), Nationally Determined Contributions (NDCs) and disaster management legislation could help clarify institutional roles and strengthen coordination across national and sub-national levels (IPCC 2022; UNFCCC 2023a).

Clarifying the relationship between adaptation, DRR and L&D within national policy frameworks may also help identify adaptation limits, inform anticipatory action and guide responses to slow-onset and compounding climate risks (UNFCCC 2023e).

Clear institutional roles and enhanced coordination across state levels are important for enabling action and accessing external support. National frameworks and approaches require data and input, including diverse perspectives, needs and knowledge from sub-national levels and actors, while sub-national levels can be supported by clear mandates, capacity support and resourcing from national level. Clear roles and coordination within state systems may also better enable relevant non-state engagement through clear entry points.

- **Improve data systems, indicators and reporting**

Building on existing disaster loss databases, post-disaster needs assessments and sectoral statistics may provide a practical entry point for developing nationally appropriate L&D indicators. Gradually expanding these systems to better capture slow-onset processes and non-economic loss and damage, such as impacts on health, ecosystems, cultural heritage and social cohesion can strengthen the evidence base for policy and investment decisions (UNDRR 2023; IPBES 2022).

Strengthening data flows from local to national levels and improving alignment with reporting under the Enhanced Transparency Framework, the Sendai Framework and the Sustainable Development Goals (SDGs) may enhance the visibility of L&D needs in international processes and support access to finance, including from the Fund for Responding to Loss and Damage (ICAT 2023; UNFCCC 2023b).

Building on existing tools and indicators for disaster-related losses and adaptation will be an important first step. These can be strengthened by incorporating aspects of non-economic losses and damages, losses linked to slow-onset climate impacts, and local knowledge and perceptions. These steps will strengthen the evidence base for policy and investment decisions (UNDRR 2023; IPBES 2022). Improvements to data systems and analysis capacities can also strengthen input to policy and programming, facilitating a shift from more reactive towards proactive efforts.

- **Institutionalize participation and equity**

Countries could benefit from moving beyond ad hoc consultations towards more structured and inclusive participation in L&D assessment, planning and monitoring. Embedding community-based assessments, locally defined non-economic loss indicators and social vulnerability analysis into national processes can help ensure that L&D responses reflect lived experiences and equity considerations (IPCC 2022; IPBES 2022).

Establishing or strengthening multi-stakeholder platforms such as national advisory committees or thematic working groups would also provide practical channels for local governments, civil society and affected communities to inform national UNFCCC positions, FRLD engagement and domestic resource allocation.

- **Invest in capacity, learning and finance alignment**

Local and sub-national capacity-building can make loss and damage approaches usable in day-to-day planning, including for climate attribution, non-economic losses, data systems and sector strategies (UNDP and WMO 2023). Rather than funding isolated pilots, governments can create ongoing learning platforms, such as hubs or communities of practice, to document and scale effective approaches (UNFCCC 2023a).

By systematically mapping existing finance for disaster risk reduction, adaptation, humanitarian action and social protection, countries can better align these resources with national loss and damage priorities, and, in parallel, prepare for the FRLD by establishing robust L&D baselines, defining priority investment pipelines and designating clear institutional focal points (UNFCCC 2023b; Climate Funds Update 2024).

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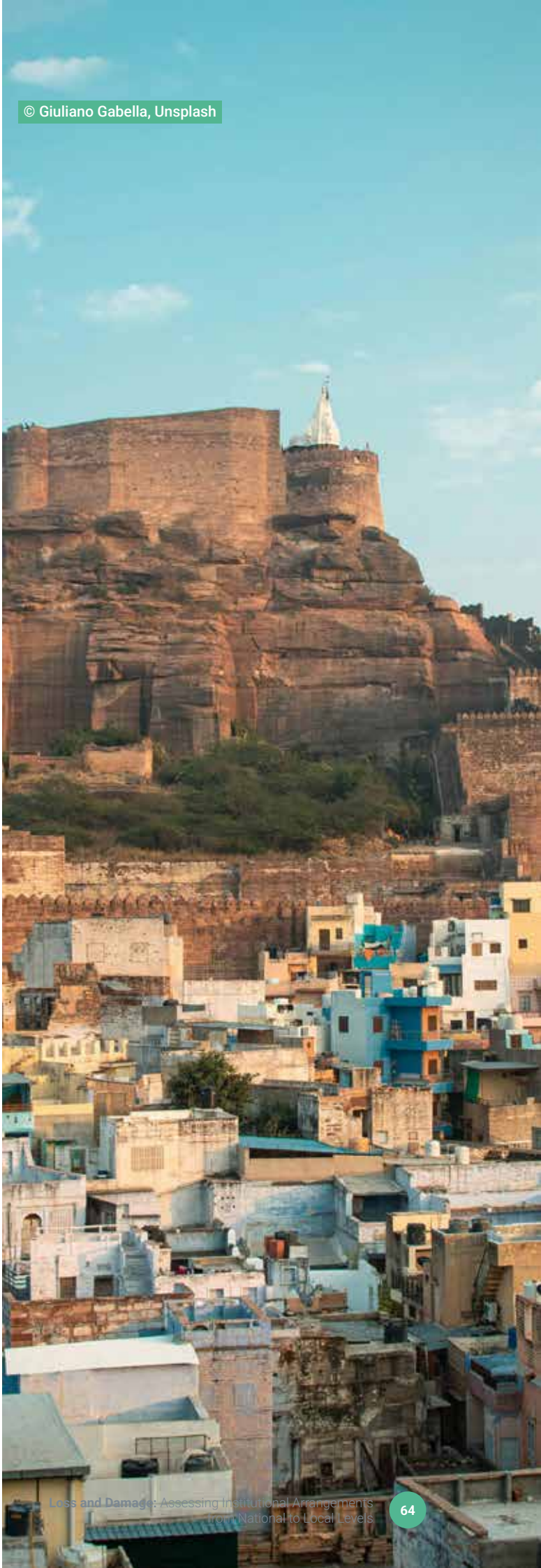
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Annexes

1. Study Questionnaire Content

UNEP CCC - DIIS Study

Assessing Institutional Arrangements for Loss and Damage

Questionnaire

Introduction

This study is led by UNEP Copenhagen Climate Centre and the Danish Institute for International Studies. It aims to support institutional arrangements for loss and damage by providing latest knowledge on institutional developments and experiences across 6 countries: India, Zambia, Mauritius, Somalia, Vanuatu, and Vietnam, including focus on national efforts and international support to assess, report on, and address climate-related losses and damages. This includes both economic and non-economic losses and damages linked to climate change, including production and livelihoods, infrastructure, health and human life, natural resources and biodiversity, cultural heritage, etc.

Loss and Damage is a rapidly developing policy area, with new institutions and policies being developed both domestically in many countries and internationally. For domestic policy especially, relevant institutional development may not always be labelled as 'loss and damage' related. For the purposes of this study, though, we are interested in any institutional developments related to assessing, reporting on and responding to the negative impacts described above.

In each country, the study conducts a vertical and horizontal assessment of institutional frameworks at different levels and across different actors, such as government institutions, international organizations, and civil society. It includes institutional mapping, document and policy review, and stakeholder interviews. The study also reviews early experiences with L&D reporting and implementation from multiple stakeholder perspectives.

By documenting institutional developments and experiences in different countries, the study aims to provide insights into diverse loss and damage contexts and institutional set-ups, as well as identifying potential opportunities and challenges across contexts. These findings can inform both national and international efforts towards coordinated, inclusive, and responsive systems to document and respond to growing climate-related harms.

Awareness (for all respondents)

1. **Are you familiar with 'losses and damages' in relation to climate change, i.e. had you heard about it before this interview?**
   (Yes/No/Not sure; Additional details/examples: _____)

› IF NO, provide additional information on losses and damages and proceed.

Additional information on losses and damages:

Losses and damages are the negative impacts linked to climate change that have not been adequately prevented through mitigation efforts to reduce greenhouse gases or adaptation efforts to manage climate impacts.

- They include negative impacts from both sudden extreme events, such as storms and floods, as well as slow-onset events that happen over time such as droughts, salinity intrusion, or swings in temperature, rainfall or seasons.
- Losses and damages are often categorized into economic and non-economic losses. Economic losses are things that can be valued monetarily, such as production, infrastructure, or belongings. Non-economic losses are things that can't be valued monetarily, including human life and health, biodiversity and ecosystem degradation, and local knowledge and culture.
- Some specific topics are also typically considered losses and damages, including disaster response and rebuilding, early warning systems, anticipatory action and climate-related mobility.
- Loss and Damage is also a developing policy area, with new institutions and policies in recent years both domestically in many countries and internationally. For domestic policy especially, relevant institutional development may not always be labelled as 'loss and damage' related. For the purposes of this study, though, we are interested in any institutional developments related to assessing, reporting on and responding to the negative impacts described above.

Policy

Legal Frameworks *(for National state respondents, Sub-national state respondents)*

2. **Is there national or subnational law or policy on climate-related loss and damage specifically?**
   (Yes /No / Not sure / Prefer not to answer; Additional details/examples: _____)

2a. **If so, is it part of adaptation policy or separate?**
   (Yes / No / Not sure / Prefer not to answer; Additional details/examples:_____)

3. **Are there any strategies, plans or tools that support L&D assessment, reporting, and/or response?**
   (Yes / No / Not sure / Prefer not to answer; Additional details/examples:_____)

4. **Overall, if you had to rate the legal framework for L&D on a scale of one to five, where one is "not at all adequate" and five is "extremely adequate", how would you rate it?**
   (1 = Not at all adequate, 5 = Extremely adequate)

Stakeholder input *(For all respondents)*

5. **Are there any avenues for vulnerable groups (women, youth, minorities, etc.) to influence national or subnational L&D policy and planning? This can be in specific fields relevant to loss and damage, e.g. disaster response, local knowledge and culture, biodiversity, etc.?**
   (Yes / No / Not sure / Prefer not to answer; Additional details/examples:_____)

6. **Are there mechanisms to integrate traditional, indigenous or local knowledge into national or subnational L&D policy and planning (e.g., community monitoring, risk assessment, consultations)?**
   (Yes / No / Not sure / Prefer not to answer; Additional details/examples:_____)

7. **Do national/subnational L&D bodies include /engage with local actors (e.g. community or local representatives)?**
   (Yes / No / Not sure / Prefer not to answer; Additional details/examples:_____)

8. **Do national/subnational L&D bodies engage with non-state actors (e.g., IOs, NGOs, CBOs)?**
   (Yes / No / Not sure / Prefer not to answer; Additional details/examples:_____)

9. **Overall, from one to five, how adequate would you say participatory governance is in relation to loss and damage?**
   (1 = Not at all adequate, 5 = Extremely adequate)

Coordination across levels

Policy Alignment *(for National state respondents, Sub-national state respondents, and International respondents working with institutional/policy development)*

10. **Are local and sub-national L&D reporting and response efforts integrated into national climate frameworks?**
    (Yes / No / Not sure / Prefer not to answer; Additional details/examples:_____)

11. **Are local and sub-national authorities able to contribute to national L&D decisions and frameworks?**
    (Yes / No / Not sure / Prefer not to answer; Additional details/examples:_____)

12. **What steps would improve policy alignment and coordination between national and subnational L&D efforts?**

13. **Overall, from one to five, how adequate would you say policy alignment is across national and sub-national levels in relation to loss and damage:**
    (1 = Not at all adequate, 5 = Extremely adequate)

Coordination Mechanism Mapping *(for National state respondents and Sub-national state respondents)*

14. **Please evaluate current coordination between government levels on:**
    - **Data Sharing**
    (1 = Not at all adequate, 5 = Extremely adequate)

    - **Emergency Response**
    (1 = Not at all adequate, 5 = Extremely adequate)

    - **Other relevant cooperation areas in this context:_____**
    (1 = Not at all adequate, 5 = Extremely adequate)

15. **Overall, from one to five, how adequate would you say coordination mechanisms across government levels are in relation to loss and damage?**
    (1 = Not at all adequate, 5 = Extremely adequate)

Data collection and reporting

Data Collection (for all respondents)

16. **What reporting/systems exist for documenting L&D, and at what levels (local, subnational, national)?**

17. **What types of data are collected for L&D assessment at national/subnational levels?**
    - **Economic Data (e.g., asset loss, income, infrastructure damage)?**
    _____

    - **Non-Economic Data (e.g., losses to local knowledge and culture, biodiversity, mental health)?**
    _____

    - **Health/wellbeing indicators, Psychosocial impacts?**
    _____

    - **Environmental/biodiversity loss?**
    _____

    - **Displacement/relocation?**
    _____

- **Other relevant data in this country context?**

_____

18. **Overall, from one to five, how adequate would you say economic data collection systems are:**
(1 = Not at all adequate, 5 = Extremely adequate)

19. **Overall, from one to five, how adequate would you say non-economic data collection systems are:**
(1 = Not at all adequate, 5 = Extremely adequate)

Institutional Capacity

Technical Systems (for all respondents)

20. **Overall, from one to five, how adequate would you say the following systems are**
(1 = Not at all adequate, 5 = Extremely adequate):

- **Early warning systems (heat, flood, etc.)**
(1 = Not at all adequate, 5 = Extremely adequate, Not relevant)

- **Cross-sectoral climate data systems (e.g., health, agriculture)**
(1 = Not at all adequate, 5 = Extremely adequate, Not relevant)

- **Post-disaster needs assessments**
(1 = Not at all adequate, 5 = Extremely adequate, Not relevant)

- **Anticipatory action**
(1 = Not at all adequate, 5 = Extremely adequate, Not relevant)

- **Other relevant systems in this context: _____**
(1 = Not at all adequate, 5 = Extremely adequate, Not relevant)

21. **Please describe any gaps or recent improvements in these systems.**

22. **Overall, from one to five, how adequate would you say technical systems are:**
(1 = Not at all adequate, 5 = Very strongly adequate)

Human Resources (for all respondents)

23. **What are the primary human resource gaps that affect L&D governance (e.g. assessment, reporting, policymaking, planning, implementation)?**

24. **Which sectors face the most critical L&D capacity gaps? (e.g., Agriculture, Natural Resource Management, Urban/Local Planning, Social Services, etc.)**

25. **Which groups face the most critical L&D capacity gaps? (National authorities, sub-national authorities, domestic NGOs, international NGOs/IOs, etc.)**

24a. **For each group identified, are these gaps technical (tools, data systems, or technical resources needed), governance-related (legal authority, clear roles, coordination, etc.) or related to human resources (knowledge, training, personnel, etc.)?**

26. **Overall, from one to five, how adequate would you say human resources are:**
(1 = Not at all adequate, 5 = Very strongly adequate)

Implementation across levels

Scaling successful practices (for National state respondents and Sub-national state respondents)

27. **Are there avenues to institutionalize successful local practices at higher levels or spread them to other localities?)**
    (Yes/No/Not sure/Prefer not to answer; Additional details/examples:_____)

28. **Are there legal/institutional barriers that limit replication of successful practices or models?**
    (Yes/No/Not sure/Prefer not to answer; Additional details/examples:_____)

29. **Overall, from one to five, how adequate would you say mechanisms for scaling successful practices are:**
    (1 = Not at all adequate, 5 = Very strongly adequate)

Closing

30. **Do you have anything else to add regarding institutional status or developments regarding loss and damage?**

We thank you very much for your time. We look forward to sharing the findings and outputs of this study with you as soon as they are finalized this fall.

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