

INTERNATIONAL

THE INSTITUTIONAL ECOSYSTEM FOR LOSS AND DAMAGE



by

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EXECUTIVE SUMMARY

Loss and damage (L&D) is a complex concept that raises difficult legal, political, scientific, and ethical questions. While Parties to both the United Nations Framework Convention on Climate Change (UNFCCC) and the Paris Agreement have not formally defined L&D, they have nevertheless sought to address L&D through a range of institutions and processes. This report provides an overview of the institutional structure and processes for L&D under the UNFCCC and Paris Agreement, from the Warsaw International Mechanism for L&D to the newly established Santiago Network. However, it is important to acknowledge that institutions and processes for adaptation, like the National Adaptation Plan (NAP) process, which integrates and implements short- and long-term adaptation needs into national planning processes, are also relevant to L&D. Other important institutions include funds and financial institutions that can support efforts to avert, minimize, and address L&D.

Others in the “institutional ecosystem for L&D” share these efforts—those international institutions and their regulatory frameworks, systems, processes, and platforms for understanding, action, and support for reducing climate risk and L&D. These fora address adaptation, disaster risk reduction, sustainable development as it relates to L&D, migration, and human displacement, some of which provide other means to finance L&D efforts.

By broadly assessing relevant institutions and their frameworks outside the UNFCCC that address elements of L&D, this report contextualizes an assessment of the strengths, gaps, and weaknesses of the UNFCCC’s and Paris Agreement’s approach to L&D. It examines four key issues:

- the gaps in the UNFCCC/Paris Agreement’s institutional set-up and tools to address L&D
- the omission of L&D in the NAP technical guidance tool
- the lack of indicators for climate risk, adaptation, and L&D
- the lack of institutional coherence on L&D.

The report concludes by making recommendations to strengthen the cooperation, coordination, and coherence between the different institutions and how institutions can better streamline climate risk management.

■ INTRODUCTION

Broadly, the institutional ecosystem for loss and damage (L&D) refers to international institutions and their regulatory frameworks, systems, processes, and platforms for understanding, action, and support for reducing climate risk and L&D. In order to assess the strengths, gaps, and weaknesses of L&D under the UN Framework Convention on Climate Change (UNFCCC) and Paris Agreement, this report provides an overview of the institutional structures and functions for L&D in that context, as well as an overview of relevant institutions and their frameworks outside the UNFCCC that address aspects of climate risk management: adaptation, L&D, disaster risk reduction, human migration/displacement, and the sustainable development agenda. By framing the L&D discussion in a broader international context, this report considers how cooperation, coordination, and coherence between the different institutions can be strengthened, and whether and how institutions can better streamline climate risk management.¹

LOSS AND DAMAGE UNDER THE UNFCCC AND PARIS AGREEMENT

UNDERSTANDING LOSS AND DAMAGE UNDER THE UN FRAMEWORK CONVENTION ON CLIMATE CHANGE

Disaster risk reduction (DRR) is aimed at preventing new and reducing existing disaster risks. Hazardous events, such as droughts, floods, cyclones, earthquakes, or tsunamis, can lead to loss, destruction, or damage of people, assets, infrastructure, and ecosystems, depending on the level of vulnerability and exposure of such systems to extreme events. In short, disaster risk management is the strengthening of resilience and reduction of vulnerability in the face of ongoing or future natural or anthropogenic disasters. Given that a subset of disasters can be attributed to or worsened by climate change, work related to the reduction and prevention of the risk of climate-related disasters overlaps with climate-related loss and damage (L&D).

Broadly speaking, L&D under the UN Framework Convention on Climate Change (UNFCCC) and Paris Agreement addresses the economic and non-economic damages associated with slow-onset events and extreme weather events caused by global warming, as well as the tools and institutions that identify and mitigate such risks. These slow-onset events and extreme weather events impact incomes, physical assets, individuals, communities, and the environment; they disproportionately affect least developed countries (LDCs), small island developing states (SIDS), and marginalized populations and communities.

L&D is often referred to in either economic or non-economic terms. Economic losses cover the quantifiable loss of goods and services; non-economic losses, on the other hand, include impacts on life, health, biodiversity, ecosystem services, indigenous knowledge, and cultural heritage, among other examples.

L&D is not formally defined in the UNFCCC or the Paris Agreement. One reason is the difficulty of accurately attributing human-induced climate change effects to ongoing socio-economic (and other) changes, measured against what would “otherwise” have taken place, given the complex and interrelated factors that drive change. Another reason is that “loss and damage”

arose in the context of insurance and risk transfer within the broader concept of “liability and compensation.” For many countries, “liability and compensation” is a redline— that those countries with large historical contributions to greenhouse gas emissions could be legally culpable for the impacts of climate change and could be required to compensate those now suffering the consequences.

Despite the lack of an agreed definition, UNFCCC Parties have sought to address L&D. The Paris Agreement identifies components of L&D, including a list of L&D activities.² It also clarifies that, under the Paris Agreement, L&D does not involve or provide a basis for any liability or compensation. Both the UNFCCC and the Paris Agreement provide capacity building and support for L&D through the Warsaw International Mechanism as well as other institutional arrangements, such as the Green Climate Fund (GCF).

AN OVERVIEW OF L&D’S INSTITUTIONAL STRUCTURES AND FUNCTIONS UNDER THE UNFCCC AND PARIS AGREEMENT

Article 8 of the Paris Agreement recognizes the importance of averting, minimizing, and addressing L&D, both extreme and slow-onset events. It establishes overarching areas of cooperation and facilitation to enhance understanding, action, and support for:

- early warning systems
- emergency preparedness
- slow-onset events
- events that may involve irreversible and permanent L&D
- comprehensive risk assessment and management
- risk insurance facilities, climate risk pooling, and other insurance solutions
- non-economic losses
- resilience of communities, livelihoods, and ecosystems.

UNFCCC Parties have established the following bodies and processes to address L&D:

The Warsaw International Mechanism for Loss and Damage

The Warsaw International Mechanism for Loss and Damage (WIM), established at the 19th Conference of the Parties to the UNFCCC (COP19), is the main vehicle in the UNFCCC process where Parties address L&D associated with climate change impacts in developing countries that are particularly vulnerable to the adverse effects of climate change. At COP21, Parties agreed that the WIM would be subject to the authority and guidance of the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA).

The WIM has three functions: (i) enhancing knowledge and understanding of comprehensive risk management approaches to address L&D associated with the adverse effects of climate change; (ii) strengthening dialogue, coordination, coherence, and synergies among relevant stakeholders; and, (iii) enhancing action and support, including finance, technology, and capacity building, for countries to address L&D associated with the adverse effects of climate change.³ To that end, the WIM engages in the following activities:

- facilitating support of action to address L&D
- improving coordination
- convening meetings
- promoting the development of, as well as compiling, analyzing, synthesizing, and reviewing information
- providing technical guidance and support
- making recommendations.⁴

The WIM Executive Committee

The WIM's Executive Committee (ExCom) guides the implementation of the three functions of the WIM. At COP21, the ExCom established:⁵

- **The Fiji Clearing House for Risk Transfer**, an interactive learning platform/repository of information on insurance and risk transfer, which facilitates the efforts of Parties to develop and implement comprehensive risk management strategies.⁶
- **The task force on displacement** to develop recommendations for integrated approaches to avert, minimize and address human displacement. The task force receives assistance from its technical members. It undertakes data collection, analyses, and risk assessments of internal and cross-border human mobility, including those communities at

risk of displacement. One of its recent mandates is to, in partnership with the Adaptation Committee (AC) and Least Developed Countries Expert Group (LEG), assist developing country Parties in integrating approaches to avert, minimize, and address displacement related to the adverse impacts of climate change into relevant national planning processes, including National Adaptation Plans (NAPs).⁷ Cooperation to promote coherence across adaptation and L&D and between the AC, LEG and ExCom is ongoing in relation to displacement.

The ExCom has a mandate to establish expert groups, subcommittees, panels, thematic advisory groups, or task-focused ad hoc working groups to assist the ExCom. ExCom's five-year work plan established the following expert groups that will provide recommendations to the WIM:

- Expert group on slow-onset events
- Expert group on non-economic losses
- Expert group on comprehensive risk management
- Task Force on human mobility/displacement
- Expert group on action and support.⁸

The Santiago Network

At COP25, the Parties established the Santiago Network to catalyze technical assistance to implement relevant approaches to avert, minimize, and address L&D for developing countries that are particularly vulnerable to climate change. The Santiago Network has the following functions:⁹

- contribute to the effective implementation of the WIM
- identify and catalyze demand-driven technical assistance
- facilitate and catalyze collaboration, coordination, and coherence by organizations, bodies, networks, and experts on technical assistance to developing countries
- facilitate the development of and access to knowledge and information
- facilitate access to action and support for L&D (finance, technology, and capacity building), both within and outside of the UNFCCC.

Technical assistance to developing countries for averting, minimizing, and addressing L&D associated with climate change covers a wide range of measures, such as risk assessment and analysis, early warning

systems, risk insurance facilities and solutions, and ecosystem-based adaptation and DRR.

The Glasgow Dialogue

At COP26, Parties agreed to establish the Glasgow Dialogue, which will run through 2024. The mandate of the Glasgow Dialogue is to discuss—along with relevant organizations and stakeholders—arrangements for the funding of activities to avert, minimize, and address L&D.

National L&D Contact Point

The ExCom also invited interested Parties to establish a national L&D contact point to enhance the implementation of approaches to address L&D at the national level.¹⁰

ADAPTATION AND L&D UNDER THE UNFCCC/ PARIS AGREEMENT

At COP19, Parties acknowledged that “[L&D] includes, and in some cases involves more than, that which can be reduced by adaptation.”¹¹ L&D overlaps with adaptation, but also speaks to the limits of adaptation. The limits of adaptation can be reached when climate risk becomes intolerable, despite best efforts by an actor to adapt its behavior, environment, or community. Intolerability varies across generations, cultures, and geographical areas and is a subjective assessment. The limits to adaptation can be affected by one or more factors, such as environmental sensitivities, including tipping points, available technology, wealth, institutional gaps and inefficiencies, and socio-economic conditions. For example, cultural norms and lack of social readiness may hinder efforts to adapt. The Intergovernmental Panel on Climate Change (IPCC) further differentiates between hard and soft adaptation limits. Soft limits imply that some adaptation options could become available in the future, due to increased availability of resources, improved technology, etc. However, hard limits are limited to existing measures, when the situation does not afford any foreseeable adaptation approaches to prevent impacts.¹²

The UNFCCC institutional structures that carry out work on adaptation are relevant for L&D, given the many linkages between adaptation and L&D. The following bodies or committees focus their work on adaptation under the Convention and Paris Agreement:

- **The AC** was established at COP17 to promote enhanced action on adaptation under the UNFCCC and acts as the coordinating body for adaptation. Utilizing expert groups, it compiles, analyses, reviews, and disseminates adaptation information, knowledge, experiences, and best practices. Its areas of work include: (i) coherence and collaboration; (ii) gender; (iii) regional centers and networks on adaptation; (iv) technical support and guidance; (v) means of implementation; and (vi) communication and outreach.¹³
- **The LEG** was established in 2001 and provides technical assistance to support the LDCs on the formulation and implementation of National Adaptation Plans of Action (NAPAs) and NAPs, and on access to funding from the GCF for its purposes.
- **The Nairobi Work Programme (NWP)** is a knowledge hub for adaptation. It hosts the Adaptation Knowledge Portal, an online resource for adaptation information.
- **The NAP process** is a comprehensive process to assist Parties with integrating and implementing short- and long-term adaptation needs into their national planning processes.¹⁴ Relevant initiatives include:
 - The NAP Global Network, which connects over 1500 participants from more than 150 countries working on national adaptation planning and action.
 - The NAP process Task Force was established as a panel within the AC to support developing countries in the formulation and implementation of NAPs.
 - NAP Central facilitates access to data, information, and knowledge on adaptation assessment, planning, and implementation to all relevant stakeholders in LDCs and other countries that are developing national adaptation plans.

Separately, the adaptation reporting/communication process serves as an important information channel for L&D. Reporting on adaptation takes place through NAPs (as described above), long-term strategies in accordance with Article 4.9 of the Paris Agreement, adaptation communications, National Communications in accordance with the UNFCCC’s Article 12, and Nationally Determined Contributions (NDCs) in accordance with Article 4.2 of the Paris Agreement.

Article 7.5 of the Paris Agreement sets out international and national aspects of adaptation that are also relevant for L&D. Parties acknowledge that adaptation action should be integrated “into relevant socioeconomic and environmental policies and actions, where appropriate.”¹⁵ One way in which to achieve this can be done is through the adaptation planning processes and implementation, including the NAP process.¹⁶

As noted above, the institutional framework under the UNFCCC and the Paris Agreement are relevant for adaptation and L&D. These mechanisms, bodies, and committees also include those addressing technology transfer and capacity building, as well as relevant finance funds.¹⁷

FINANCE AND L&D UNDER THE UNFCCC/PARIS AGREEMENT

The UNFCCC Secretariat last reviewed financing options and the availability of finance for L&D in existing climate funds in 2019.¹⁸ The below is a non-exhaustive list of financial institutions relevant for L&D:

- **The Adaptation Fund** provides grants for adaptation and L&D activities. L&D activities include preemptively strengthening resilience through risk assessments, risk prevention, climate monitoring, and early warning systems. Non-economic losses, such as loss of biodiversity, loss of territory, or loss of societal and cultural identities, may fall outside of the Fund’s mandate.¹⁹
- **The LDC Fund** supports LDCs with grants to support efforts to adapt to the effects of climate change. Financing support for L&D includes projects for climate information services networks, L&D elements of NAPAs and NAPs, early-warning systems, risk transfer, and comprehensive risk

management. Non-economic losses such as human mobility, loss of territory, social and cultural identities seem to fall outside the scope of its mandate.

- **The Special Climate Change Fund (SCCF)** was created in 2001 to address the specific needs of developing countries. It was originally grant-focused but has evolved to include innovative financial instruments, such as concessional loans and equity, and can also provide weather risk insurance and reinsurance products. It supports a broader continuum of efforts, including risk reduction and transformational approaches.²⁰
- **The GCF** is a global platform that invests in low-emission and climate-resilient development projects. It offers a range of instruments, including grants, loans, guarantees, equity, and results-based payments. In terms of L&D-related financing, it has, for example, financed projects for risk assessment, risk prevention or reduction, and implementation of early-warning systems to reduce loss of life. Other examples include ecosystem-based adaptation and risk reduction through flood mapping and early-warning systems, and weather index-based insurance programs.

At COP25, Parties invited the GCF to continue to provide financial resources for L&D activities, consistent with its existing investments, results framework, and funding windows and structures, taking into account the five-year workplan of the ExCom.²¹ Access channels include the Project Preparation Facility and the Readiness and Preparatory Support Programme.²² Parties also directed the GCF and the ExCom to take steps to clarify access to funding for L&D through the GCF.²³

The 2012 Institutional Gap Analysis for L&D

The UNFCCC Secretariat last published a comprehensive institutional gap analysis for L&D in 2013. The report assessed global and regional institutional arrangements addressing L&D associated with climate change impacts.¹ Since 2013, however, the UNFCCC regime and others have greatly advanced their work on L&D. While the report can be considered dated and of limited use, the following short summary of the report provides an overview of the institutional gaps that existed prior to the Paris Agreement and its subsequent decisions.

The report noted that a number of financial institutions provide relevant funding but indicated that tracking of actual funding allocated and disbursed to L&D-related work was challenging. The report also highlights the use of Rio Convention markers as potential indicators for L&D. On the other hand, the report shows that no institutional arrangement specifically or solely addressed non-economic L&D.² The gap analysis does, however, point to range of non-economic harms that countries had begun to recognize and define, such as displacement and human mobility, climate change and human rights, and loss of cultural heritage.

At the time of the 2013 gap analysis, few institutional arrangements addressed transboundary L&D and those that did mainly focused on river basins and forests. Despite a large number of relevant institutional arrangements at both global and regional levels, there was little coordination or collaboration on transboundary L&D.³

In most regions, institutional arrangements focus on extreme weather events, rather than slow-onset events.⁴ On the other hand, the report noted that there was greater potential for coordination through economic communities at the regional level. Global agreements, like as the Hyogo Framework of Action (the predecessor agreement to the Sendai Framework) and the Convention on Biodiversity (CBD), demonstrate some regional coordination.

The report highlighted that countries called for mechanisms or arrangements to coordinate the vast body of global L&D-related work but at that time, coordination between mapped multilateral environmental agreements was sparse and limited to shared online platforms, infrequent coordination meetings, and ad hoc activities.⁵ Therefore, formal coordination of data, information, and knowledge exchange was limited at the global level, even though many of the institutional arrangements identified this as their primary function.⁶ The report suggested that the Nairobi Work Programme could play a role in facilitating knowledge exchange among different stakeholder groups.⁷

OTHER INTERNATIONAL INSTITUTIONS RELEVANT TO ADDRESS L&D

Efforts to address loss and damage (L&D) overlap with disaster risk management, humanitarian assistance, migration and human displacement, and sustainable development. International work in these areas has grown considerably over the past decade. The following international organizations and agreements address various L&D issues outside of the UN Framework Convention on Climate Change (UNFCCC).

DISASTER RISK REDUCTION

The United Nations Office for Disaster Risk Reduction (UNDRR) is the UN focal point for Disaster Risk Reduction (DRR), previously known as United Nations International Strategy for Disaster. The Office oversees and supports the implementation, follow-up, and review of the Sendai Framework for Disaster Risk Reduction 2015–2030, previously known as the Hyogo Framework for Action 2005–2015.²⁴ In doing so, it coordinates and supports countries' efforts in strengthening their national institutional frameworks through increased preparedness and resilience. UNDRR, in its coordination role, has strengthened its effectiveness by establishing:

- the **Senior Leadership Group on Disaster Risk Reduction and Resilience**
- the **UNDRR Focal Points Group**.

The tools and assistance the UNDRR provide include:

- the UNDRR community web site **preventionWeb**
- the **International Recovery Platform**, a global partnership working to “build back better” in recovery, rehabilitation and reconstruction, strengthening cooperation, and sharing knowledge
- hosting the disaster information management system, **DesInventar Sendai**, for the systematic collection, documentation, and analysis of data on losses caused by disasters associated with natural hazards²⁵
- the **Sendai Framework Monitoring platform**, which is an online platform for voluntary reporting that gives an overview of the progress on the framework's targets. It is a sub-system of the DesInventar Sendai data collection tool.
- publishing the **Global Assessment Report**
- **Sendai Voluntary Commitments online platform** (VC platform),²⁶ an online platform for all

stakeholders undertaking DRR to share knowledge and information and to foster collaboration

- guidelines, such as **Words Into Action**, which is a series of 10 individual guidelines for the implementation of the Sendai Framework
- the **Global Platform for DRR**, a global multi-stakeholder forum to share knowledge, discuss the latest developments and trends in DRR, and accelerate the implementation of the Sendai Framework.²⁷

The Sendai Framework

The Sendai Framework is a non-binding agreement that promotes DRR. It is the primary framework for international collaboration on DRR—a product of a shift from reacting to disasters to proactively reducing existing risks and minimizing new risks. It applies to small- and large-scale, frequent and infrequent, sudden and slow-onset disasters caused by natural or anthropogenic hazards, as well as related environmental, technological, and biological hazards and risks.²⁸

The Sendai Framework includes a set of targets and 38 quantitative indicators to measure progress in the reduction of disaster risk and losses, both nationwide and locally. The indicators aim to measure the reduction of disaster risk and losses in lives, livelihoods, and health and in the economic, physical, social, cultural, and environmental assets of persons, businesses, communities, and countries. Parties self-report using the targets and indicators as well as nationally-defined custom targets and indicators. The information is used to determine global trends in reducing risk and losses due to disasters. To assist countries with implementation, it also sets out 13 guiding principles.²⁹

The Sendai Framework's preamble recognizes that addressing climate change as one of the drivers of disaster risk represents an opportunity to reduce that risk.³⁰ It also refers to the importance of incorporating DRR measures into development programs related to adaptation.³¹ At the same time, the Sendai Framework acknowledges the mandate of the UNFCCC as the primary oversight body for climate change policy.³²

The Paris Agreement and its accompanying decision do not explicitly mention the Sendai Framework; however, the linkages and overlaps between DRR,

adaptation, and L&D are clear in the Paris Agreement's articles on adaptation and L&D.³³

The UNDRR's 2021 Global Assessment Report on drought makes no specific reference to L&D.³⁴ However, it does assess the number of people affected by drought and estimates the economic losses incurred globally, regionally (e.g., the European Union), or even country-specific (e.g., India, United States, Australia). It also stressed that damage and costs resulting from droughts are usually seriously underestimated. Other L&D-related issues reflected on in the report include policy support measures such as risk transfer and financial instruments and government-supported insurance schemes.

Displacement Aspects

Displacement—as it relates to L&D—is also addressed in the Sendai Framework, particularly displacement risk as a reason to promote transboundary cooperation to enact policy and plan ecosystem-based approaches for shared resources, such as rivers.³⁵ The Framework also notes the need to respond to disasters and related displacement through regular national and local level disaster preparedness, response, and recovery exercises.³⁶ There are specific references to migrants in relation to: (i) governments' engagement with relevant stakeholders in the design and implementation of policies, plans, and standards;³⁷ (ii) empowering local authorities through regulatory and financial means to work and coordinate with migrants in DRR management at a local level;³⁸ and (iii) acknowledging that migrants can contribute to the resilience of communities and be useful in the design and implementation of DRR.³⁹ It also refers to the need to formulate policies aimed at addressing the issue of prevention or relocation of human settlements in disaster prone areas.⁴⁰

The Sendai Framework demonstrates that population movement can result in increased *or* reduced hazard impacts. However, its scope is limited to disaster-induced population movement and has been criticized for not addressing the underlying, structural drivers for population movement, in general, or integrating risk reduction perspectives in any policy, measure, or decision influencing human mobility patterns.⁴¹ More simply, the focus on “disasters” as a source of human mobility and displacement is not sufficient for an effective risk analysis of human movement. By comparison, the Warsaw International Mechanism (WIM) for L&D's Task Force on displacement has broader practical application for

climate-induced displacement/human mobility, given that it is not practically feasible to distinguish between climate- and non-climate induced displacement/human mobility.

Sustainable Development Goals Aspects

The Sendai Framework's preamble points out Member States' commitment to address DRR reduction and resilience to disasters within the context of sustainable development and poverty eradication.⁴² There is also overlap between the Sendai Framework and the Sustainable Development Goals (SDG), including the SDG on climate.

Disaster Risk Reduction Coherence, Plans, and Risk Management

The Sendai Framework's preamble also highlights States' commitment to integrate DRR and resilience “into policies, plans, programmes and budgets at all levels and within relevant frameworks.”⁴³ Coherence within relevant policies, plans, practices, and mechanisms across sustainable development and growth, food security, health and safety, climate change and variability, environmental management, and DRR agendas is a guiding principle.⁴⁴ In strengthening disaster risk governance, States should adopt and implement “national and local [DRR] strategies and plans, across different timescales, with targets, indicators and time frames.”⁴⁵ States are encouraged to produce progress reports on the implementation of the Sendai Framework, including the progress on national and local plans for DRR.⁴⁶ Similarly, the Paris Agreement encourages Parties to submit adaptation communications.

UNDRR's latest global assessment report on the risk of drought underscores the need to converge and integrate strategies across different frameworks, from adaptation and mitigation approaches in the Paris Agreement to those implemented through the Convention on Biological Diversity (CBD), the SDGs, and the Convention to Combat Desertification.⁴⁷ UNDRR's policy brief on DRR and climate change acknowledges that “prudent risk management requires preparation for a range of negative outcomes associated with varying degrees of warming.”⁴⁸ UNDRR's recommendations include scaling up comprehensive disaster and climate risk management, empowering communities, mobilizing society to ensure no one is left behind, and promoting innovative investment and financing

mechanisms. However, the UNDRR does not currently have the climate risk expertise necessary to assist countries in undertaking climate scenario-analysis and risk assessments, nor does it have a relevant financial institutional mechanism.

Disaster Risk Reduction: A Cross Cutting Issue

DRR is often considered a cross-cutting issue across other UN organizations' work, as well. For example, the **United Nations Children's Fund** (UNICEF) and the **World Health Organization** (WHO) adopt a risk-informed approach in delivering their mandates.

SUSTAINABLE DEVELOPMENT AND L&D

The 2030 Agenda for Sustainable Development is a call to action that sets out a comprehensive blueprint for eliminating extreme poverty, reducing inequality, and protecting the planet. The Agenda is a non-binding, normative framework—as opposed to the legally binding Paris Agreement—and, as such, operates as a (soft-law) policy framework without enforceable legal obligations.⁴⁹ The Agenda was endorsed in 2015, the same year as the adoption of the Paris Agreement.

The Agenda features 17 **SDGs** that countries aspire to achieve. It encourages Member States to “conduct regular and inclusive reviews of progress at the national and sub-national levels, which are country-led and country-driven.”⁵⁰ These voluntary national reviews (VNRs) feed into the **High-level Political Forum on Sustainable Development (HLPF)**. VNRs are state-led, undertaken by both developed and developing countries, and provide a platform for partnerships, including through the participation of major groups and other relevant stakeholders.

The Division for Sustainable Development Goals (DSDG) in the **UN Department of Economic and Social Affairs** (UNDESA) operates as the Secretariat for the SDGs, providing substantive support and capacity-building for the SDGs and related thematic issues, including climate. DSDG plays a key role in the evaluation of UN systemwide implementation of the 2030 Agenda and in advocacy and outreach activities relating to the SDGs. The DSDG undertakes the following activities:

- assists countries with preparing voluntary national reviews at the HLPF (see below)
- assists with capacity building for SDG-integrated planning and policy design, linking to national

planning processes and sectoral areas, including DRR.⁵¹

The 17 SDGs seek to measure Member States' progress toward ending poverty, hunger, AIDS, and discrimination against women and girls, prioritizing progress for those countries who are furthest behind. Each Goal has associated targets and a set of measurable indicators to track progress. In total, there are 169 targets and 230 (211 in 2021) approved indicators. Yearly progress reports on progress, or lack thereof, are published for each of the goals.⁵²

Many SDGs speak to enhancing climate action, indirectly or directly. For example, SDG 13 asks Member States to “take urgent action to combat climate change and its impacts,” and acknowledges that the UNFCCC is the primary international, intergovernmental forum for negotiating the global response to climate change. It further recommends that disaster risk management should develop in alignment with the Sendai Framework.⁵³ More specifically, the SDGs link to adaptation reporting under the Paris Agreement by setting out an indicator that measures the number of countries with Nationally Determined Contributions (NDCs), long-term strategies, National Adaptation Plans (NAPs), and adaptation communications reported to the Secretariat of the UNFCCC.⁵⁴

The 2021 SDG Report concluded that the climate crisis continues, and that the global community is “woefully off track to stay at or below 1.5 degrees Celsius as called for in the Paris Agreement.” The report acknowledged countries' voluntary efforts to adapt to climate change and obligations to submit adaptation information through NDCs and noted two trends: that countries are (i) articulating more quantified adaptation targets and indicators, and (ii) identifying links between adaptation, the SDGs, and other frameworks.⁵⁵ It also notably referred to the NAPs as tools to develop and carry out plans to strengthen efforts to adjust to climate change.⁵⁶

However, the relationship between sustainable development and L&D is “almost entirely implicit, if not completely absent from L&D discussions,” given that only 34 percent of L&D research mentions either sustainable development or the SDGs as related policy initiatives.⁵⁷ Chad S. Boda and other researchers have analyzed sustainable development theory in the context of L&D and assert that L&D should be understood as “resulting from a chain of failures or inability to maintain

sustainable development.” Through this framing, sustainable development should be used as a theoretical framework for developing metrics and assumptions that can be used to measure progress on L&D, particularly in the context of the Paris Agreement’s global stocktake (see more below).⁵⁸ Climate risk management provides a relevant set of tools or measures but lack an overarching strategy to guide decision-making. Sustainable development provides a broad strategy to guide decision-making when there is tension and uncertainty in prioritizing action. However, they do not address existing adaptation and L&D decision-making processes under the Paris Agreement, like the NAP planning process, or the Sendai Framework’s efforts to establish guidelines for reducing disaster risk and loss.

MIGRATION AND HUMAN DISPLACEMENT

Before the Paris Agreement negotiations, the global community paid increasing attention to cross-border migration, displacement, and human mobility induced by climate change.

The UNHCR and the Global Compact for Refugees

UN’s High Commissioner for Refugees (UNHCR) is the UN Refugee Agency.⁵⁹ It was established in 1950 and oversaw the adoption of the **1951 Refugee Convention**. It works to ensure that refugees have the right to seek asylum and find safe refuge in another state, with the option to return home, integrate, or resettle. UNHCR also aids on the ground during times of displacement.

More recently, the UNHCR led the consultations resulting in the adoption of the 2018 **Global Compact on Refugees (GCR)**. The GCR is a framework for responsibility-sharing and international cooperation on sustainable solutions to refugee crises. It seeks to ease pressure on host countries, enhance refugee self-reliance, expand access to third country solutions, and support conditions in countries of origin so refugees may return in safety and dignity. The GCR includes the **Comprehensive Refugee Response Framework**, which lays out a vision for a more predictable and more comprehensive response to refugee crises and calls for greater support to refugees and the countries that host them. Lessons drawn from the application of the Framework helped to inform the GCR.

Every four years the GCR conducts a **Global Refugee Forum** to share information on pledges and initiatives. The review of the compact is undertaken primarily

through the forum, annual high-level meetings, and in the High Commissioner’s annual report to the UN General Assembly. A **GCR indicator framework** is used to assess progress over time.

International Organization for Migration and the Global Compact on Migration

UN International Organization for Migration (IOM) was established in 1951 and is the principal UN agency working in the field of migration. IOM supported the creation of the 2018 **Global Compact for Safe, Orderly and Regular Migration (GCM)**.⁶⁰ The GCM is a comprehensive, non-binding framework supporting a common approach to international migration through international cooperation and the improvement of governance of and policies for migration.

GCM’s chapter on “natural disasters, adverse effects of climate change and environmental degradation” stresses the need to strengthen analysis and information to better understand migration movements resulting from sudden- and slow-onset natural disasters and the effects of climate change. In this context, it further underlines the need to develop adaptation and resilience strategies.⁶¹ It also notes the need to develop coherent approaches to address migration challenges by taking into consideration the Agenda for the Protection of Cross-Border Displaced Persons in the Context of Disasters and Climate Change and the Platform on Disaster Displacement.

The GCM established a review mechanism for implementation at local, national, regional, and global levels, the **International Migration Review Forum (IMRF)**.⁶² It will be hosted every four years, beginning in 2022, and replaces the High-level Dialogue on International Migration and Development. The reviews will result in a **Progress Declaration**.

In supporting countries with the coordination, implementation, and review of the GCM, the UN has established a **UN Network on Migration**. The network is meant to assist member countries with the support for implementation, follow up, and review through the GCM.

The Platform on Disaster Displacement

The **Nansen Initiative** provided an initial global response through a State-led consultative process building consensus and endorsing of the **Agenda for the Protection of Cross-Border Displaced Persons in the**

Context of Disasters and Climate Change. As UNHCR refugee convention negotiations stalled, the Nansen Initiative process became a significant institutional development.

The Nansen Initiative further developed into the **Platform on Disaster Displacement**, a group of States working together to protect people displaced across borders in the context of disasters and climate change.⁶³ The Platform consists of a secretariat, chair, vice-chair, an envoy of the chair, a steering group, an advisory committee, and a group of friends. The steering group consists of 15–20 countries plus the European Union which directs efforts based on an approved strategic framework and workplan. The UNHCR and IOM are standing invitees to the steering group.

OTHER INTERNATIONAL INSTITUTIONS RELEVANT TO L&D⁶⁴

United Nations Office for the Coordination of Humanitarian Affairs

The United Nations Office for the Coordination of Humanitarian Affairs (OCHA) strengthens and coordinates the international response to humanitarian emergencies and natural disasters by: (i) coordinating risk analysis for identifying where and how humanitarian risk may occur; (ii) developing technical guidance and tools to assist with humanitarian needs overviews and response plans;⁶⁵ (iii) emergency preparedness and response; and (iv) hosting the Common Operational Datasets.⁶⁶ Its work on risk assessment, emergency preparedness, and response links to action to address adaptation and L&D. As an example of work related to L&D under OCHA, emergency response is needed “when risks are not sufficiently reduced, or when major crises are not anticipated.” It has referred to these risks as “residual risks,” and that coping with these risks “remains a core function of the humanitarian actors and is an integral part of crisis risk management.”⁶⁷

OCHA annually publishes the **Global Humanitarian Overviews**, or reports on humanitarian needs and funding needed to meet them. These reports highlight the lack of compliance with international humanitarian law and resulting difficulties and dangers in providing humanitarian aid. Its 2022 report identifies conflict, climate change, and the COVID-19 pandemic as key causes of displacement, poverty, and hunger.⁶⁸

OCHA’s focus is on ensuring humanitarian assistance as a response to emergencies, but anticipatory action and preparedness measures are also key to addressing humanitarian needs.⁶⁹ OCHA recognizes the need to integrate human rights and humanitarian action as essential to global climate-adaptation efforts.⁷⁰ Further, because collaboration with development partners can boost resilience to future food crises and mitigate risk, transitioning from dependence on relief to development is key in tackling underlying factors that cause chronic humanitarian hardships.⁷¹ However, despite this acknowledgment, OCHA has yet to incorporate climate risk into its work in a coherent and systemic manner. For example, climate risk is not a part of the Humanitarian Programme Cycle tools. Climate risk has received some attention through a stand-alone project by the **UN Environment Programme (UNEP)/OCHA Joint Environment Unit** on adaptation to climate change in Sub-Saharan African Humanitarian Situations.⁷²

Food and Agriculture Organization of the UN

The technical assistance the Food and Agriculture Organization of the UN (FAO) provides for L&D includes capacity building support to strengthen L&D information systems in the agricultural sector.⁷³ It provides training and e-learning courses on mainstreaming climate risk management in agricultural finance and on the FAO damage and loss assessment methodology for quantifying L&D in the agriculture sector.⁷⁴

United Nations Environment Programme

UNEP supports the preparation of vulnerability assessment and flood risk modeling for developing countries. It also supports countries in climate risk monitoring and through projects that develop climate information and early warning systems, including the installation of weather monitoring stations and forecast-based financing.⁷⁵

Through the Climate Technology Centre and Network (CTCN), UNEP also provides technical assistance for DRR and supports countries in assessing their technology needs. It supports the transfer of environmentally friendly technologies, including those relevant to climate resilience through the **UNEP and UNEP Technical University of Denmark (DTU) Partnership technology needs assessment project**.

The World Food Programme

The World Food Programme (WFP) uses early-warning systems to trigger financial support, like financial safety nets and insurance, to mitigate the impacts of climate extremes for the most vulnerable. WFP climate risk management supports projects that increase resilient food systems.⁷⁶ It supports countries' efforts to strengthen national early warning systems and integrate protocols for forecast-based action at the national and subnational level. It also provides technical assistance through the **African Risk Capacity (ARC) initiative** on customizing parametric drought models, developing contingency plans, monitoring seasonal weather risk, and identifying other capacity-building needs.

WFP also supports risk-financing solutions through the ARC initiative and provides forecast-based financing. WFP has enabled access to climate risk insurance solutions through the **R4 Rural Resilience Initiative**, protecting over 180,000 farming households in 10 countries.

The Convention on Biological Diversity

The Convention on Biological Diversity (CBD) is an international agreement on lessening biodiversity loss by reducing damage or threats to biological diversity.⁷⁷ Article 14(2) states that the Parties to the CBD shall examine the issue of liability and redress, including restoration and compensation for transboundary damage to biological diversity. As a result, Parties adopted the **Nagoya–Kuala Lumpur Supplementary Protocol on Liability and Redress** in 2010, which entered into force in 2018. As it relates to L&D, the Protocol addresses response measures in the event of damage or sufficient likelihood of damage to the conservation and sustainable use of biological diversity resulting from living modified organisms that find their origin in transboundary movements.⁷⁸ Response measures are any reasonable actions to prevent, minimize, contain, mitigate, or otherwise avoid damage—or measures to restore—biological diversity.⁷⁹

The UN Convention on the Law of the Sea

Several aspects of UN Convention on the Law of the Sea (UNCLOS) are relevant for L&D under the UNFCCC/Paris Agreement because climate effects on the ocean, its resources, and its delimitations are complex. For example, slow-onset events such as sea-level rise will potentially affect maritime boundaries, which UNCLOS

largely governs. UNCLOS also governs the conservation and management of living resources of the high seas, the seabed, the ocean floor, and its subsoil beyond the limits of national jurisdiction.

In summary, climate risk management and L&D solutions, such as forecast-based financing instruments, early-warning systems, and insurance and other risk-transfer solutions, are rarely comprehensively promoted by UN institutions outside of the UNFCCC.

OTHER FINANCE FOR L&D

Governments may access financing for L&D through other bodies and mechanisms outside those governed under the UNFCCC. These include:

- **Multilateral climate funds** relevant for L&D finance, which include:
 - the International Fund for Agricultural Development's Adaptation for Smallholder Agriculture Programme
 - the Global Climate Change Alliance
 - the Pilot Programme for Climate Resilience (PPCR) under the World Bank's Climate Investment Funds (CIFs).
- **Multilateral development banks**
- **Bilateral sources of climate finance**
- Initiatives/mechanisms—for example,
 - **Climate Risk & Early Warning Systems (CREWS)** is a mechanism that funds LDCs and SIDS for risk informed early warning services, implemented by four international governmental partners.⁸⁰ CREWS' vision is to scale up support for LDCs and SIDS to provide early warnings to reduce lives and livelihoods lost to extreme events and to contribute to the Paris Agreement's action agenda.
 - **The Global Facility for Disaster Reduction and Recovery (GFDRR)** is a global partnership that helps developing countries better understand and reduce their vulnerability to natural hazards and climate change. It is a grant funding mechanism managed by the World Bank.

Integrated financial approaches to pursuing the global agendas under the Sendai Framework, the SDGs, and the Paris Agreement would broaden the available pool of resources and make it easier to access finance for L&D.

ISSUES AND OPTIONS FOR L&D UNDER THE UNFCCC AND PARIS AGREEMENT

ASSESSING ADAPTATION AND LOSS AND DAMAGE

The UN Framework Convention on Climate Change's (UNFCCC) mandate is broad but limited: It covers climate risk and disaster-related risks. By comparison, the Sendai Framework's mandate goes further, addressing the impacts of disasters not induced by climate change. In looking at migration and displacement, however, it is not yet possible to distinguish with certainty which future disasters and migratory patterns would, or would not, be climate-related or -induced. The distinction is therefore more theoretical than practical in nature.

The UNFCCC's mandate and pre-emptive approach developed over the last decade through its work on adaptation and loss and damage (L&D) therefore has several advantages in meeting global demand for climate risk management. For example, the National Adaptation Plan (NAP) process uniquely provides developing countries—in particular Least Developed Countries (LDC)—a practical and technical tool to assess and manage the climate impacts on human and natural systems. In particular, NAPs use scenario-analysis projections of climate-related impacts that is lacking in other institutional frameworks.

The UNFCCC process is also supported by the Green Climate Fund (GCF), which provides innovative finance and investment to plans and projects to reduce climate risk. The GCF can potentially also serve as a fund for risk not related to climate change, such as disaster risk, even if in an interim capacity until similar institutional financial structures can be set up under UN Office for Disaster Risk Reduction (UNDRR).

However, given the scope of its mandate and the increasing number and severity of climate impacts, does the UNFCCC have the tools and institutional bodies necessary to undertake climate risk assessment and management that also adequately addresses all elements of L&D?

ISSUES AND GAPS IN ADDRESSING L&D

The following analysis examines key issues and gaps in the UNFCCC/Paris approach to addressing L&D:

Gaps in UNFCCC/Paris Institutions and Tools

There are gaps across UNFCCC/Paris Agreement institutions and tools used to address L&D but it is not evident whether Parties are adequately informed of these gaps and whether and how any new L&D processes, bodies, or institutions under the UNFCCC and Paris Agreement can provide added value, including through coordination, collaboration, or information sharing with other regimes. As noted above, these institutions and fora outside the UNFCCC have been established, adopted, or expanded their work and deepened their expertise on L&D and related issues. The UNFCCC secretariat last conducted a comprehensive institutional gap analysis of L&D in 2013 – a new gap analysis capturing the current landscape from 2013 could be of great value to Parties.

In terms of coordination with other bodies, the Adaptation Committee's (AC) has not effectively cooperated or coordinated on climate risk with other relevant international institutions due to its heavy workload. The Warsaw International Mechanism for loss and damage (WIM) has done so more effectively, but it could also benefit from more in-depth assessment of convergences and strengthening areas of cooperation. Given the differences in the understanding and handling of resilience, adaptation, and L&D among the different institutions and given their unique contexts and historical development, full harmonization among frameworks should not be a goal. But lack of integration of adaptation and L&D in the different institutional frameworks can significantly reduce their coherence, efficiency, and effectiveness.

L&D Weaknesses in the NAP Technical Guidance Tool

Under the UNFCCC and the Paris Agreement, the NAP process is the primary tool for managing climate risk and its effects on society and the environment. While L&D is not specifically referred to in the NAP process, climate risk includes L&D risk, which sometimes goes beyond adaptation; further, the NAP process is relevant in strengthening planning and implementation of L&D activities. The NAP process recognizes climate risk

impacts (e.g., loss of human lives, economic damage, threats to livelihoods, increased risk of disease, constraints on and shocks to economic development) increases the magnitude and frequency of disasters, famine, human displacement, and so on. The NAP guidelines also clarify that longer-term risks that may cause irreversible and highly damaging consequences are ranked higher in the climate risk assessment.⁸¹

An analysis of how the current NAP technical guidance tool addresses L&D reveals several weaknesses:

- It is not clear which aspects of L&D should be included in the NAP.
- It does not reflect the most recent L&D developments in the field, particularly with respect to financial and insurance solutions.
- It does not clarify how to assess the *limits* to adaptation, nor how to reach these limits.
- It does not reflect the practical realities relayed in the NAPs submitted, which address L&D explicitly or as part of the adaptation efforts.

Despite the NAP process's prominence as one of the most important tools to reduce the effects of climate change under the UNFCCC and the Paris Agreement, the low number of NAPs submitted—only 38 as of July 2022—implies otherwise.⁸² One reason for the lack of submissions is a lack of capacity to draw up and submit NAP funding proposals to the Green Climate Fund (GCF).⁸³ And while an independent evaluation recommended that the GCF simplify its funding proposal procedure, it is not clear whether and how this will happen. Parties should also receive the technical support and capacity building needed to submit NAPs.

Strengthening L&D aspects in the NAP guidelines can help Parties better fully assess and manage climate risk. For example, conducting an adaptation barriers analysis identifies the challenges for effective adaptation action, but it is not the same as assessing the potential limits to adaptation. Clarity the limits to adaptation could assist the global community in revealing which areas of adaptation could benefit from technological advancement, institutional strengthening, biological solutions, human behavioral changes, and increased financial support. Another example would be to include insurance solutions or risk pooling as an adaptive measure in the NAP guidelines. Insurance solutions for climate risk have advanced significantly since UNFCCC published NAP technical guidelines in 2012.

Despite the lack of clear guidelines on L&D in

the NAP guidelines, Parties still refer to “losses” or “damages”—as a result of climate impacts—in their NAPs without specifically mentioning L&D.⁸⁴ Losses include biodiversity loss, loss in rainfall/water supply, loss of lives, or loss of livelihoods. One NAP has addressed L&D as a concept and in a separate chapter, including details on the types of L&D it has incurred due to climate impacts. A few NAPs refer to L&D as integral to its adaptation priorities. These NAPs demonstrate that the current practice has evolved beyond the scope of the current technical guidelines for NAPs.

Lack of Indicators on Climate Risk, Adaptation, and L&D in the Paris Agreement

Parties to the Paris Agreement are required to undertake a global stocktake every five years to assess collective progress toward the agreement's long-term mitigation, adaptation, and finance goals.⁸⁵ However, the Paris Agreement did not establish indicators to measure progress on adaptation given the complexity of addressing the need for flexibility in what and how to report on adaptation. Parties are currently considering how to further define and measure progress towards the agreement's global goal on adaptation. Parties also have not established how to measure on progress on L&D.

By contrast, the following review processes in other regimes use indicators relevant for climate risk, adaptation, and L&D:

- the 2030 Agenda for Sustainable Development (Sustainable Development Goal (SDG) indicators)⁸⁶
- the Sendai Framework
- the GCM.⁸⁷

Parties have not explored using similar indicators to measure progress under the Paris Agreement.

Lack of International Institutional Coherence

Generally, institutions outside of the UNFCCC like the Sendai Framework, the SDGs, and The United Nations Office for the Coordination of Humanitarian Affairs (OCHA) address climate risk and L&D aspects in a piecemeal manner. Regarding L&D, these fora mainly address economic and physical assets, as well as loss of life. They lack focus on non-economic losses, such as degraded health or the loss of workforce potential, territory, biodiversity, cultural identity, or way of life due to climate change.

The scope of the Sendai Framework's mandate covers “disaster risks.” This technically includes risks

from slow-onset events, but, historically, the work has focused on sudden onset events and only recently acknowledged the importance of preemptive action. UNDRR has recommended scaling up comprehensive disaster and climate risk management; however, it lacks the climate risk expertise to undertake scenario-analysis and climate risk assessments. Nor does UNDRR have the financial institutions necessary to meet support demands to reduce climate risks; instead, it recommends other financial mechanisms and increasing innovative investment.

The evolution of regimes addressing migration and human displacement has long been fraught and has not focused on climate-induced human displacement. However, the Nansen Initiative Protection Agenda has shifted this dynamic, particularly across the UN High Commissioner on Refugees (UNHCR), the Global Compact on Refugees (GCR), and the UN International Organization for Migration (IOM) (through the GCM).

For further context, the Paris Agreement was adopted in 2015 just as the momentum across institutions for sustainable development, disaster risk reduction (DRR), and displacement was renewed.⁸⁸ It would have been difficult to ensure synergy and coherence across regimes. However, the lack of coherence in terms of norms and obligations related to reducing climate risks, strengthening adaptation and L&D action on the international level can create more work for regional, national, and sub-national agencies and additional challenges in aligning of regional, national, and sub-national policies. One could make an argument that a more global approach to addressing climate risks and providing channels to contribute work on adaptation and L&D under the UNFCCC and Paris Agreement would reduce some of these issues.

OPTIONS FOR STRENGTHENING CLIMATE RISK MANAGEMENT FOR L&D

Addressing L&D Weaknesses in the NAP Technical Guidance Tool

Examples of ways to strengthen the approach to L&D in the NAP technical guidance tool include:

- updating the current NAP process—for example, by updating the NAP technical guidance tool to include L&D considerations in a more comprehensive and clearer manner
- adding a NAP technical guidance tool for L&D—an example is the tool for nature-based solutions

- creating a new comprehensive climate risk national planning process that includes L&D, with corresponding tools.

These approaches would strengthen L&D assessments and clarify the hard and soft limits to adaptation that would enable the international community to act more swiftly in pushing the limits of adaptation through technological innovation, capacity building, and support.

Addressing Lack of Indicators on Climate Risk, Adaptation, and L&D in the Paris Agreement

In terms of indicators, while the AC is currently assessing the potential development of indicators to measure adaptation, Parties have not yet considered L&D indicators. If they were to do so, Parties should engage in the decisions on whether and how to measure progress for adaptation. Some suggested indicators of progress for L&D could include information on whether understanding, action, and support have been enhanced.

In terms of increasing awareness of the efforts to address climate risk outside the UNFCCC and Paris Agreement, Parties could request that the secretariat undertakes an updated institutional gap analysis technical paper for L&D, either in a broad or narrow sense.

Addressing Lack of Institutional Coherence

To address institutional coherence under the Paris Agreement, Parties should not require existing bodies to redirect their focus and take time and energy away from other important issues. However, they could explore channels of cooperation through, inter alia, lessons learned, best practices, regular reporting/readouts to the WIM (and vice versa) from other fora.

A new “Technical Climate Risk Committee” could be established, either directly under the Paris Agreement—answering to the (Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA)—or jointly under the WIM Executive Committee (ExCom) and the AC. This committee could be tasked with overseeing the revision of or addition to the NAP technical guidelines or the creation of new L&D technical guidelines to reflect the relevant L&D aspects currently missing. It could also provide more clarity on how to report on L&D in Parties’ adaptation and/or L&D reporting. In addition, it could take on responsibility for coordination with relevant institutions and their frameworks on climate risk management. Committee

members should include those already engaged in adaptation and L&D under the Paris Agreement (e.g., AC, LEG, ExCom), which would facilitate ongoing cooperation on climate-related displacement between the AC, Least Developed Countries Expert Group (LEG), and ExCom. It could also help ensure coherence with other relevant institutions' indicators.

Finally, given that the Global Stocktake (GST) process has already begun, consideration of these issues is urgent. However, swift action should not preclude the deeper involvement of relevant institutions in strengthening coherence and synergies.

CONCLUSION

Loss and damage (L&D) under the UN Framework Convention on Climate Change (UNFCCC) and Paris Agreement is part of a broader effort to address climate risk and its severe impacts to communities and economies. As the global community gains experience in implementing measures to understand, act on, and support the reduction of climate risk and L&D, UNFCCC and Paris Agreement Parties have opportunities to strengthen the cooperation, coordination, and coherence between the different institutions and to streamline climate risk management.

One way to do so is to strengthen existing tools and institutions under the UNFCCC and Paris Agreement. For example, the National Adaptation Plan (NAP) technical guidance tool can be strengthened to be more reflective and attuned to Parties' adaptation and L&D experiences and needs.

Indicators—like those used in the Sustainable Development Goals, the Sendai Framework, and Global Compact on Refugees—may be useful, particularly as Parties engage in the Global Stocktake (GST) process to measure progress toward the Paris Agreement's long-term goals. However, efforts to develop indicators should be considered together with efforts to measure progress on adaptation.

At minimum, it may be beneficial for Parties to request the UNFCCC secretariat to undertake an updated institutional gap analysis technical paper for L&D to increase awareness of the efforts to address climate risk outside the UNFCCC and Paris Agreement. This will aid in efforts to explore channels of cooperation through, inter alia, lessons learned, best practices, regular reporting/readouts to the Warsaw International Mechanism for loss and damage (and vice versa) from other fora. But it can also help to strengthen and expand action and support on L&D, either in existing institutions, bodies, and workstreams, or to inform the creation of new bodies that could further aid in these efforts.

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- “Voluntary Commitments,” *United Nations Office of Disaster Risk Reduction*, accessed July 27, 2022, <https://www.undrr.org/implementing-sendai-framework/voluntary-commitments>.
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ENDNOTES

1 This report does not assess the potential for the creation of one comprehensive risk management process encompassing all risk elements including climate risk, with relevant comprehensive indicators. To ascertain whether it would be possible and beneficial to do so might not be relevant to assess until coherence has been ensured within existing institutions and frameworks.

2 “Paris Agreement,” Art. 8.

3 Warsaw international mechanism for loss and damage associated with climate change impacts, ¶ 5(a)-(c).

4 Warsaw international mechanism for loss and damage associated with climate change impacts, ¶ 7.

5 UNFCCC, Adoption of the Paris Agreement, Decision 1/CP.21, ¶¶ 48-49.

6 UNFCCC, Fiji Clearing House for Risk Transfer, <http://unfccc-clearinghouse.org/>.

7 This should be seen in context with the need to revise the NAP technical guidance tool/establish a new technical risk assessment tool for L&D. Displacement could be one of the areas this tool can address.

8 The current rolling workplan was endorsed by Parties at COP 23 (November 2017). An update of the current five-year rolling workplan started in 2021 and is expected to be completed by the end of 2022. See, UNFCCC, Five-year rolling workplan of the Executive Committee of the Warsaw International Mechanism for Loss and Damage.

9 For a detailed list of SN functions, please see UNFCCC, Warsaw International Mechanism for Loss and Damage associated with Climate Change Impacts, Draft decision -/CMA.3, ¶ 9(a)-(f).

10 UNFCCC, Review of the Warsaw International Mechanism for Loss and Damage associated with Climate Change Impacts, Decision 4/CP.22, ¶ 4.

11 UNFCCC, Decision 2/CP.19, preamble.

12 Klein, R. et al. 2014. “Adaptation opportunities, constraints, and limits,” in *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* pp. 899-943.

13 A weakness in the AC’s work is ensuring coherence and cooperation on adaptation with other UN bodies and relevant centres and networks outside of the UNFCCC. For example, the area of work related to regional centers and networks on adaptation has received little focus apart from creating a list of these actors.

14 For a short overview of the NAP process, see Center for Climate and Energy Solutions, Landscape Analysis of Adaptation Opportunities for Climate Ambition, Appendix I, <https://www.c2es.org/document/landscape-analysis-of-adaptation-opportunities-for-climate-ambition/>.

15 “Paris Agreement,” Art. 7.5.

16 “Paris Agreement,” Art. 7.9(a)-(e).

17 Regarding technology transfers, see the work of the Climate Technology Centre and Network (CTCN), the Technology Executive Committee (TEC), and the Technology Mechanism; for example of capacity building, the Paris Committee on Capacity Building (PCCB).

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- 26 “Voluntary Commitments,” UNDRR.
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- 29 For an overview of the Sendai Framework, please see, UNDRR, Chart of the Sendai Framework for Disaster Risk Reduction 2015-2030, https://www.preventionweb.net/files/44983_sendaiframeworkchart.pdf.
- 30 UNDRR, “The Sendai Framework for Disaster Risk Reduction 2015-2030,” ¶13.
- 31 UNDRR, “The Sendai Framework for Disaster Risk Reduction 2015-2030,” ¶47(d).
- 32 UNDRR, “The Sendai Framework for Disaster Risk Reduction 2015-2030,” ¶13, fn 8.
- 33 See, e.g., “Paris Agreement,” Arts. 7.1, 7.9, 8.1, 8.4.
- 34 UNDRR, Special Global Assessment Report on Drought 2021.
- 35 UNDRR, “The Sendai Framework for Disaster Risk Reduction 2015-2030,” ¶28(d).
- 36 UNDRR, “The Sendai Framework for Disaster Risk Reduction 2015-2030,” ¶33(h).
- 37 UNDRR, “The Sendai Framework for Disaster Risk Reduction 2015-2030,” ¶7.
- 38 UNDRR, “The Sendai Framework for Disaster Risk Reduction 2015-2030,” ¶27(h).
- 39 UNDRR, “The Sendai Framework for Disaster Risk Reduction 2015-2030,” ¶36(a)(vi).
- 40 UNDRR, “The Sendai Framework for Disaster Risk Reduction 2015-2030,” ¶27(k).
- 41 Lorenzo Guadagno, “Human Mobility in the Sendai Framework for Disaster Reduction,” *International Journal of Disaster Risk Science* 7 (2016): 30-40, <https://link.springer.com/article/10.1007/s13753-016-0077-6>.
- 42 UNDRR, “The Sendai Framework for Disaster Risk Reduction 2015-2030,” ¶ 2.
- 43 UNDRR, “The Sendai Framework for Disaster Risk Reduction 2015-2030,” ¶2.
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- 57 Chad S. Boda et al, “Framing Loss and Damage from climate change as the failure of Sustainable Development,” *Climate and Development* 13:8 (2021), 680, <https://doi.org/10.1080/17565529.2020.1851640>.
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85 The first global stocktake started in 2022 and will culminate in 2023.

86 The SDG's climate goal is overarching, with indicators reflecting the climate risk work under the Paris Agreement. This is understandable as the SDGs acknowledge the UNFCCC as the main body for managing climate risk.

87 The GCM includes indicators on migration movements resulting from sudden- and slow-onset natural disasters and effects of climate change, and underlines the need to develop adaptation and resilience strategies in this regard.

88 Namely, the Sendai Framework for Disaster Risk Reduction 2015-2030 (the Sendai Framework), the UN's 2030 Agenda for Sustainable Development and the Sustainable Development Goals (SDGs), and the Nansen Initiative Protection Agenda on disaster-induced cross-border displacement.

FIGURE ENDNOTES

1 For a full list of the institutions, see UNFCCC, Gaps in existing institutional arrangements within and outside of the Convention to address loss and damage, including those related to slow onset events (2013), 55-61, <https://unfccc.int/sites/default/files/resource/docs/2013/tp/12.pdf>.

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