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Snapshot of Loss and Damage in SIDS under the Climate Promise

2024

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About this publication

This product was developed in partnership with the Government of Portugal, under UNDP's Climate Promise: Pledge to Impact Programme. Delivered in collaboration with a wide variety of partners, the initiative has supported over 120 countries to enhance and implement Nationally Determined Contributions (NDCs) under the Paris Agreement. From Pledge to Impact is generously supported by the governments of Germany, Japan, United Kingdom, Sweden, Belgium, Spain, Iceland, the Netherlands, Portugal and other UNDP's core contributors. This Portfoilio is part of UNDP's contribution to the NDC Partnership and is set to conclude at the end of 2024. With special thanks to the Government of Portugal and to the Alliance of Small Island States (AOSIS) for their review.

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Contents

Acronyms

AR6	IPCC 6th Assessment Report
CoP	Conference of Parties
GDP	Gross Domestic Product
IIED	International Institute for Environment and Development
IPCC	Intergovernmental Panel on Climate Change
L&D	Loss and Damage
LTRA	Long-term risk assessment
NDC	Nationally Determined Contribution
NELD	Non-economic loss and damage
OECD	Organisation for Economic Co-operation and Development
SIDS	Small Island Developing States
SLR	Sea level rise
SN	Santiago network
UN	United Nations
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
WIM	Warsaw International Mechanism
WMO	World Meteorological Organization

1. Introduction

1.1 Background on UNFCCC loss and damage discussions and increasing momentum

Loss and Damage (L&D)[1] related to climate change has been discussed in some form under United Nations (UN) climate change negotiations for over three decades. In 1995, at the first Conference of the Parties (CoP) to the UN Framework Convention on Climate Change (UNFCCC), the Pacific Island nation of Tuvalu tabled the issue of an insurance scheme to support island countries experiencing loss and damage from climate-induced sea level rise (SLR). As discussions on loss and damage evolved, due in large part to the leadership of Small Island Developing States (SIDS)[2] and frontline communities, more emphasis was placed on the needs of countries and communities to avert, minimize and address loss and damage. SIDS continue to stress that support for addressing loss and damage is importantly an issue of climate justice, arguing that countries that have not caused the climate crisis are experiencing the brunt of its impacts. Loss and damage also jeopardizes hard won development gains in SIDS and adds to their severe and long-term structural challenges[3].

As such, L&D is now emerging as a significant pillar of work under the UNFCCC and Paris Agreement discussions. It is enshrined under **Article 8** of the Paris Agreement in which countries agreed to "enhance understanding, action and support, as appropriate, on a cooperative and facilitative basis with respect to loss and damage associated with the adverse effects of climate change." In addition, the **Warsaw International Mechanism** for Loss and Damage associated with Climate Change Impacts (WIM) was established in 2013 to "address loss and damage associated with impacts of climate change, including extreme events and slow onset events in developing countries that are particularly vulnerable to the adverse effects of climate change." In 2019, the **Santiago network** (SN) was established to "catalyze the technical assistance of relevant organizations, bodies, networks and experts, for the implementation of relevant approaches for averting, minimizing and addressing L&D at the local, national and regional level, in developing countries that are particularly vulnerable to the adverse effects of climate change." More recently, a new **Fund**, as part of broader new funding arrangements, was established in 2022 at CoP27 and operationalized in 2023 at CoP28 to support countries that are particularly vulnerable to climate change respond to loss and damage. These existing and new mechanisms provide countries and communities with a range of resources for their loss and damage needs.

1 For the purposes of this report, "Loss and Damage" (L&D) refers to the loss and damage area of work under the UNFCCC and Paris Agreement negotiations. However, "loss and damage" or "losses and damages" refer to technical and/or scientific approaches.

2 For an up-to-date list of SIDS, see **UN-OHRLLS 'List of SIDS'**.

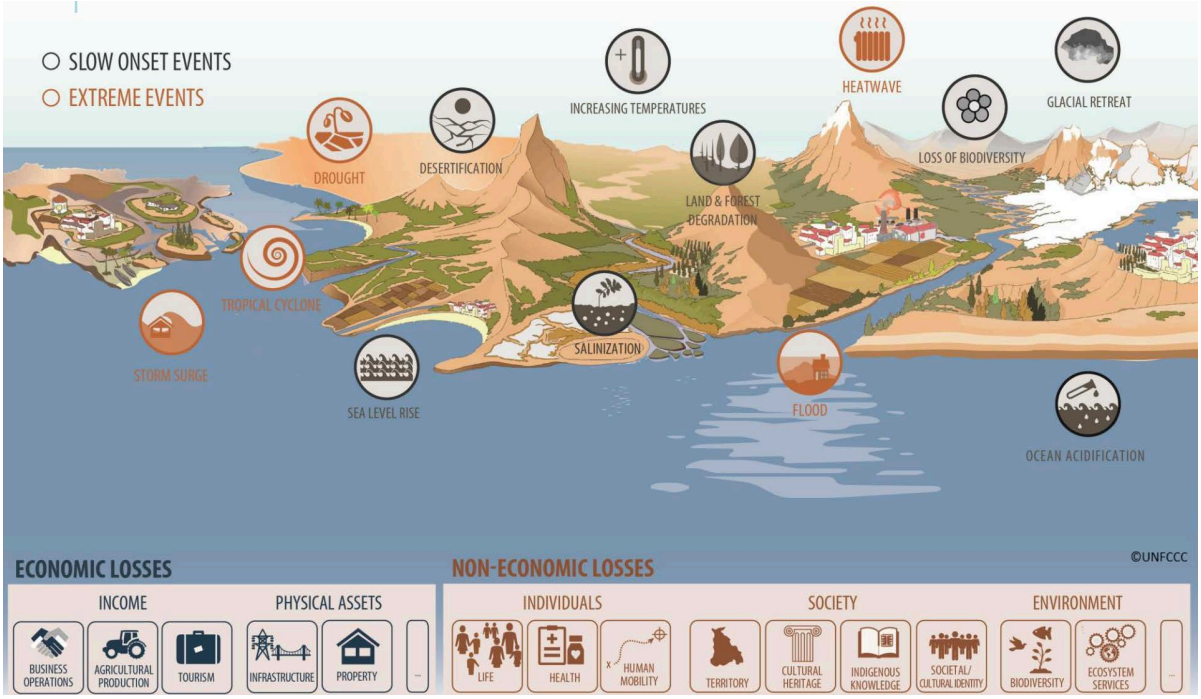
3 United Nations (2024). **High level panel on the development of a Multidimensional Vulnerability Index Final Report**. New York: UN.

1.2 Loss and damage frameworks

While there has been significant progress on L&D in recent years, Parties to the UNFCCC and Paris Agreement do not have an agreed definition, taxonomy or framework for loss and damage. However, the Parties and experts under the WIM's Executive Committee and its expert groups have helped to identify some components of a general framework for understanding loss and damage. **"Loss and Damage" under the UNFCCC generally refers to the harms caused by climate change that are beyond the limits of adaptation.** The WIM identifies actions to avert, minimize and address loss and damage[4]. **Averting** loss and damage typically refers to climate mitigation, which would limit global temperature rise and therefore reduce and/or eliminate harmful climate impacts that lead to losses and damages. **Minimizing** loss and damage typically refers to adaptation, disaster risk reduction, and other actions that reduce overall loss and damage. **Addressing** loss and damage acknowledges the limits to adaptation and mitigation and refers to post-impact support, including disaster recovery, rehabilitation, restoration, relocation and other relevant actions. Further research is ongoing to better understand the full scope of loss and damage and necessary interventions.

According to the WIM, loss and damage can occur from impacts of climate change classified as either sudden onset (extreme weather events) or slow onset climate-related events (Figure 1). Sudden onset events typically appear rapidly and last over a short period, such as cyclones, hurricanes, typhoons, floods, storm surges, heatwaves, drought, landslides, etc. Slow onset events occur gradually over a longer period, although the exact timeline can vary based on the event. Slow onset events include SLR, ocean acidification, increasing temperatures, desertification, land degradation, glacial melt, etc. Slow onset events can often exacerbate sudden onset events. For example, SLR can increase storm surge levels during tropical cyclones or glacier melt can lead to glacial lake outburst floods.

Figure 1: Climate change impacts and types of losses and damages incurred



Source: UNFCCC and WIM (2024). Online Guide on Loss and Damage.

4 UNFCCC and WIM (2024). Online Guide on Loss and Damage.

Economic loss and damage refers to losses and damages that can be quantified with a monetary value. According to the WIM, this can include losses and damages to infrastructure or property, livelihoods, economic growth, business operations, tourism, etc. This is the most common and researched understanding of loss and damage. Non-economic loss and damage (NELD) refers to losses and damages that do not have a monetary value but are equally important to address. These can impact at the individual level (life, health, human mobility), society level (territory, cultural heritage, Indigenous knowledge, societal/cultural identity), and environment level (ecosystem services, biodiversity). It is worth noting that this dichotomy has sometimes been challenged, as they both are often interlinked. For example, while biodiversity may not have an inherent monetary value, loss of biodiversity can have significant impacts on the economy at all levels, especially in SIDS. NELDs may also have a cost related to response. For example, a sacred site for an Indigenous community may not have an inherent monetary value, but building a memorial for a sacred site that is lost due to SLR does have an associated cost.

Furthermore, vulnerability is critical to understanding loss and damage. In a recent study from the International Institute for Environment and Development (IIED) and the United Nations Development Programme (UNDP), research shows that while climate drivers can influence vulnerability, other factors such as social, political and demographic drivers can exacerbate climate vulnerability and cause a "multiplier effect" [5]. As such, these drivers, coupled with weak coping capacities and a lack of social protection mechanisms, can worsen vulnerability and ultimately lead to greater loss and damage.

1.3 Scientific evidence of climate-related loss and damage and subsequent implications for SIDS

Loss and damage is referred to more specifically as "losses and damages" under IPCC Reports, as it is related to scientific information not specific to L&D negotiations. According to the IPCC 6th Assessment Report (AR6) Summary for Policymakers[6], primary takeaways related to losses and damages include:

- There is an uneven distribution of losses and damages across specific regions and sectors.
- With every increase in global temperature rise, there will be increased losses and damages. While immediate climate action would limit global temperature and reduce losses and damages, there will still be unavoidable losses and damages from existing global warming that cannot be prevented through adaptation actions, highlighting the limits to adaptation actions.
- People and the natural world are already experiencing climate-induced losses and damages and will continue to experience losses and damages at varying scales.
- Current support to respond to losses and damages is not adequate, especially in developing countries. This is in addition to lack of adequate finance for mitigation and adaptation measures, which can contribute to further losses and damages.

5 Ritu Bharadwaj et al. (2023). ***Taxonomy of climate-attributable loss and damage and scalable responses related to DRR, health and human mobility***. Working Paper IIED and UNDP. London: IIED.

6 IPCC (2023). **Summary for Policymakers**. In: Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, H. Lee and J. Romero (eds.)]. IPCC, Geneva, Switzerland, pp. 1-34.

For SIDS, which are highly vulnerable to the impacts of climate change, the IPCC AR6 goes into detail on the current and projected impacts for these nations, including economic and NELD (Box 1).

Box 1: Relevant IPCC data on climate change impacts

"Small islands are increasingly affected by increases in temperature, the growing impacts of tropical cyclones , storm surges, droughts, changing precipitation patterns, SLR, coral bleaching and invasive species, all of which are already detectable across both natural and human systems (very high confidence)."

"Scientific evidence has confirmed that globally and in small islands tropical corals are presently at high risk (high confidence). Freshwater systems on small islands are exposed to dynamic climate impacts and are among the most threatened on the planet. Projected climate and ocean-related changes will significantly affect marine and terrestrial ecosystems and ecosystem services, which will in turn have cascading impacts across both natural and human systems (high confidence)."

"Modelling of both temperature and ocean acidification effects under future climate scenarios suggest that some small islands will experience severe coral bleaching on an annual basis before 2040 (medium confidence). Projected changes in aridity are expected to impose freshwater stress on many small islands, especially SIDS (high confidence)."

"Reef island and coastal area habitability in small islands is expected to decrease because of increased temperature, extreme sea levels and degradation of buffering ecosystems, which will increase human exposure to sea-related hazards (high confidence). The reduced habitability of small islands is an overarching significant risk caused by a combination of several key risks facing most small islands even under a global temperature scenario of 1.5°C (high confidence), including loss of cultural resources and heritage. The vulnerability of communities in small islands, especially those relying on coral reef systems for livelihoods, may exceed adaptation limits well before 2100 even for a low greenhouse gas emission pathway (high confidence)."

"Small islands are already reporting losses and damages particularly from tropical cyclones and increases in SLR (high confidence). Despite the loss of human life and economic damage, the methods and mechanisms to assess climate-induced loss and damage remain largely undeveloped for small islands. Further, there are no robust methodologies to infer attribution and such assessments are limited. A research gap on losses and damages includes how to assess the economic costs of losses and damages. Specific data on experienced losses and damages across socio-economic groups and demographics are needed."

"Monitoring and tracking slow-onset events are equally important and require robust data. For many small islands, adaptation actions are often incremental and do not match the scale of extreme or compounding events (high confidence). The unavailability of up-to-date baseline data and contrasting scenarios/temperature levels continue to impair the generation of local-to-regional observed and projected impacts for small islands, especially those that are developing nations (high agreement)."

Source: IPCC (2023). Summary for Policymakers. In: Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, H. Lee and J. Romero (eds.)]. IPCC, Geneva, Switzerland, pp. 1-34.

Furthermore, according to World Meteorological Organization (WMO), between 1970 and 2020, SIDS lost US$153 billion due to weather-, climate- and water-related hazards, which is significant given that the average Gross Domestic Product (GDP) for SIDS is $13.7 billion.[7] On average, SIDS experience disaster losses seven times higher than other countries (as a share of their GDP) and their disaster mortality rate is more than double the global average[8]. Loss and damage response also increases the heavy debt burden of SIDS. Over 40 percent of SIDS are now on the edge of or are already facing unsustainable debt levels.[9] A report from the Organisation for Economic Co-operation and Development (OECD) and the World Bank notes that several SIDS can lose access to concessional finance as they graduate to middle-income status, which affects their ability to access adequate finance in post-disaster contexts.[10] Cumulative loss and damage from both sudden and slow onset events can also further exacerbate debt burdens, while eroding development gains. By mid-century, floods and storms jointly are expected to produce aggregate loss and damage of $56 billion in SIDS under a 2°C warming scenario[11].

The growing scientific evidence and data detailed above, demonstrates that SIDS are indeed bearing a significant burden from climate impacts, while not contributing substantially to global temperature rise. Therefore, advocating for enhanced support for averting, minimizing and addressing loss and damage as a matter of climate justice is critical for SIDS, as climate change can threaten their rights and very existence.

7 WMO (2020). S*tate of Climate Services: Risk Information and Early Warning Systems*. Geneva, Switzerland: WMO.

8 UNDRR (2024). **Small Island Developing States** [accessed May 2024].

9 United Nations (2024). **"Small islands on the frontlines of catastrophic climate crisis, crippling debt, exacting heavy toll on development gains."** Press Release. [accessed June 2024].

10 OECD and World Bank (2016). **Climate and Disaster Resilience Financing in Small Island Developing States**. A report jointly authored by the Organisation for Economic Co-operation and Development (OECD) and the Small Island States Resilience Initiative (SISRI) team in the Climate Change Group of the World Bank. Washington, DC:World Bank.

11 Panwar, V., Noy, I., Wilkinson, E. and Corbett, J. (2023). **The Costs of Inaction: Calculating climate change-related loss and damage from extreme weather in Small Island Developing States**. ODI Working Paper. London: ODI.

2. UNDP's Climate Promise support to NDCs and SIDS

2.1 Brief overview of NDCs

Nationally Determined Contributions (NDCs) are sovereign climate plans or blueprints that allow countries to share their commitments towards achieving the goals of the Paris Agreement. While the focus of NDCs has been primarily on mitigation, adaptation and cross-cutting issues, many countries, and especially SIDS, have chosen to include loss and damage components to highlight the importance of this issue in their countries, regions and communities. Every five years, Parties to the Paris Agreement are expected to submit an updated and increasingly ambitious NDC. **The next submission of NDCs will take place in 2025 ahead of COP30.**

2.2 Background to UNDP's Climate Promise NDC support

Delivered in collaboration with a wide range of partners, UNDP's Climate Promise is the largest global offer on NDC support. It supported over 125 countries and territories ahead of COP26 to enhance their Nationally Determined Contribution (NDC) under the Paris Agreement, including 85 percent of all developing country submissions.

Looking towards COP30, UNDP is scaling up support to countries through the "Climate Promise 2025." Leveraging the existing infrastructure and building on lessons learned, Climate Promise 2025 is leading a UN System-wide coordinated effort to support countries on NDC enhancement and implementation on the road to 2025 and the submission of third generation NDCs.

2.3 Ambition in Climate Promise-supported SIDS' NDCs

Under the Climate Promise, UNDP is currently supporting 32 SIDS in NDC development and/or implementation.[12] SIDS have produced some of the most ambitious NDCs to date. Of the Climate Promise-supported SIDS, 84 percent have raised or intend to raise mitigation ambition, while 91 percent have enhanced or intend to enhance the adaptation component of their NDCs. The high adaptation ambition is reflective of the vulnerability of SIDS to more frequent and intense climate change impacts.[13]

12 The 32 SIDS supported by UNDP's Climate Promise are: Antigua and Barbuda, Bahamas, Belize, Cabo Verde, Comoros, Cook Islands, Cuba, Dominica, Dominican Republic, Fiji, Grenada, Guinea-Bissau, Guyana, Haiti, Jamaica, Kiribati, Maldives, Mauritius, Nauru, Niue, Palau, Papua New Guinea, Saint Kitts and Nevis, Saint Vincent and the Grenadines, Samoa, São Tomé and Príncipe, Seychelles, Suriname, Timor-Leste, Tonga, Trinidad and Tobago, and Vanuatu.

13 UNDP (2022). **The State of Climate Ambition: Snapshot for Small Island Developing States (SIDS)**. New York: UNDP.

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3. Loss and Damage in Climate Promise-supported SIDS' NDCs

3.1 Methodology for NDC analysis

Given the lack of existing taxonomy for loss and damage, the methodology for this preliminary analysis was developed using initial WIM frameworks for understanding sudden and slow onset, economic and non-economic losses, and specific areas relevant to loss and damage. Data was collected on the inclusion of the following elements in NDCs: explicit reference to "loss and damage;" a separate section on loss and damage; reference to sudden onset events; reference to slow onset events; and reference to economic and non-economic loss and damage.

In addition, other elements based on recent loss and damage discussions were explored including inclusion in NDCs of: disaster recovery and response; loss and damage reporting and/or databases; loss and damage finance, including insurance and prearranged finance; sectoral loss and damage information; loss and damage scientific data and/or research; and loss and damage-related case studies or specific examples within the NDC. The focus of the research centered on investigating how SIDS are addressing loss and damage in their NDCs, primarily post-impact support. While averting and minimizing loss and damage are also critical, as stated previously, under the WIM these actions typically refer to mitigation and adaptation and disaster risk reduction. While these critical components can also be a part of post-impact actions, they are typically seen as separate aspects of NDCs.

It is important to note that there is no standard framework for how NDCs are presented, and therefore, each NDC offers various categories and levels of information. Some NDCs include more detail than others, including on loss and damage. In this analysis, any reference by countries to a loss and damage related element under review, even if only minimal in detail, was included in the dataset.

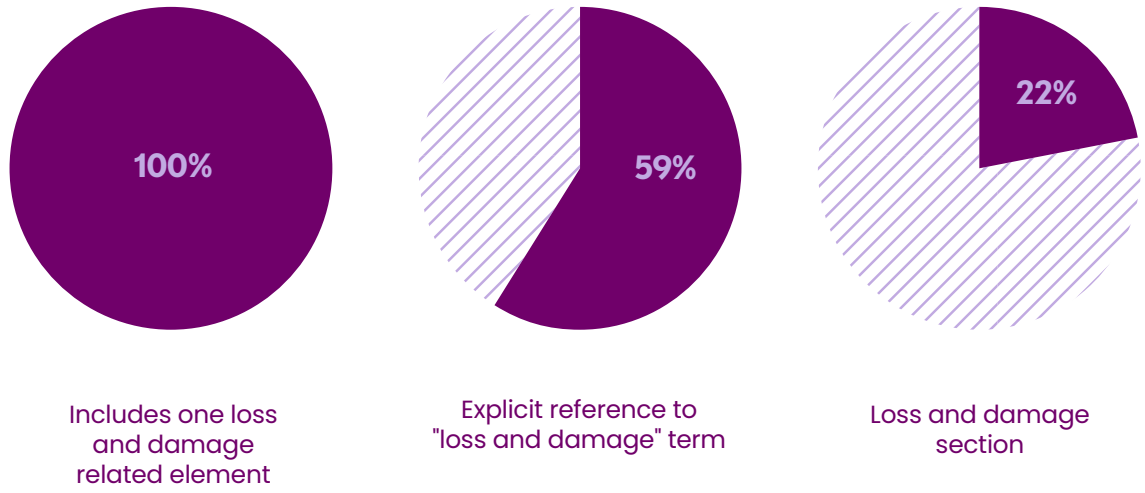
It is also important to note that critical loss and damage mechanisms, such as the SN and the new Fund, were established more recently. In turn, many intended NDCs (iNDCs) and first generation NDCs were submitted before these mechanisms were in place and therefore, reference to technical or financial support for loss and damage was expected to be minimal in these NDCs. In addition, the Paris Agreement decision[14] gives specific guidance to countries related to mitigation components of NDCs, but not on loss and damage.

14 UNFCCC (2016). **Report of the Conference of the Parties on its twenty-first session, held in Paris from 30 November to 13 December 2015**. Addendum. Part two: Action taken by the Conference of the Parties at its twenty-first session. FCCC/CP/2015/10/Add.1.

3.2 Inclusion of loss and damage elements[15]

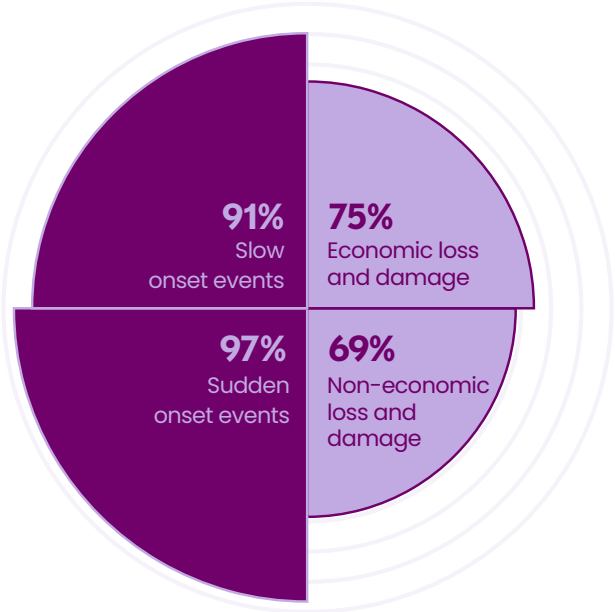
Of the NDCs from the 32 SIDS supported under the Climate Promise, all 32 (100 percent) included reference to at least one of the loss and damage-related elements identified in this research, however 19 (59 percent) reference the term “loss and damage” explicitly. As noted previously, the level of detail of the data varies by NDC. While some have only minimal details or information throughout the NDC, 7 (22 percent) NDCs have dedicated sections on loss and damage (Figure 2).

Figure 2: Overarching references to L&D in Climate Promise-supported SIDS’ NDCs (%)



When looking at references to elements such as sudden and slow onset events as well as economic and non-economic losses, the majority of NDCs generally included such references, albeit to varying degrees (Figure 3).

Figure 3: References to L&D in relation to impact and type of event in Climate Promise-supported SIDS’ NDCs (%)



15 All data and statistics used in this section is taken from internal UNDP analysis of 32 NDCs from Climate Promise-supported SIDS.

Of the SIDS' NDCs, **31 (97 percent)** include reference to sudden onset events.

EXAMPLE

The **Bahamas NDC** includes detailed information about the compounding loss and damage associated with frequent hurricanes. The NDC also includes references to drought, heavy rainfall, and heatwave data based on IPCC assessments.

29 SIDS' NDCs (91 percent) include reference to slow onset events. The slow onset event with the most references is SLR, followed by ocean acidification.

EXAMPLE

Cabo Verde notes that SLR presents existential risks to the country's inhabitants. The NDC includes sea level rise projections, increasing from 0.26 m to 0.98 m over the next 60-80 years.

24 of SIDS' NDCs (75 percent) include reference to economic loss and damage. In some cases, data was specific with exact figures of losses and damages, while others referred to the broader economic costs of climate impacts.

EXAMPLE

In **St. Kitt's and Nevis**, the increasing intensity of tropical cyclones and resultant damages have been strongly linked to the drivers of climate change. The NDC provides data on the 1989-2017 period and indicates that St. Kitts and Nevis has experienced impacts from twelve tropical cyclones, amounting to over $700 million in damages. These storms have affected all sectors of the country, with particularly severe impacts for agriculture, critical infrastructure, transportation, housing, tourism, electricity and water.

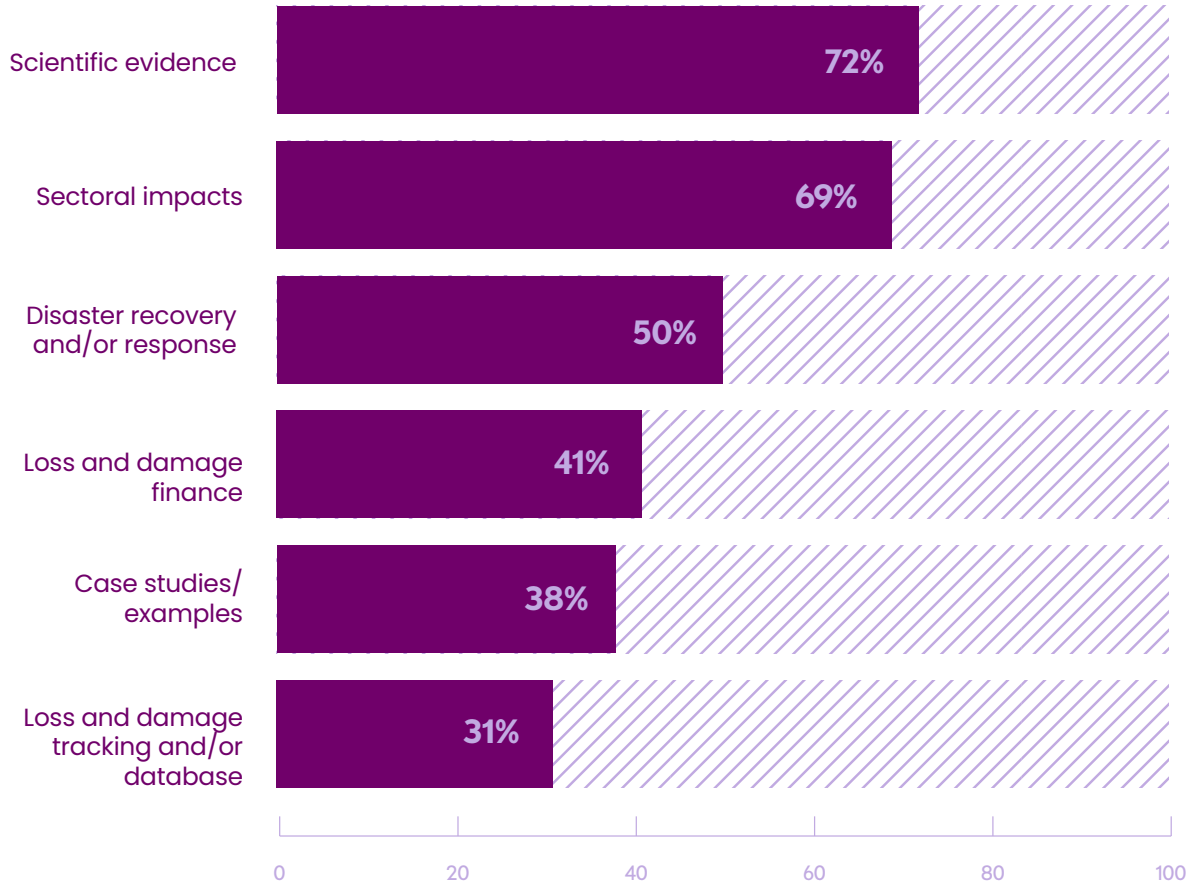
22 (69 percent) of SIDS' NDCs include reference to NELD, either explicitly or through mention of specific NELDs, such as climate-induced displacement or health.

EXAMPLE

Maldives' NDC includes a specific section on public health. It notes that warmer temperatures and wetter monsoon seasons could increase the prevalence of vector borne diseases. The NDC highlights that these impacts are not limited to physical diseases, but also affects mental and social wellbeing. **Tonga** specifically links SLR to projected population migration from 2030 and beyond.

When turning to references of more specific elements in relation to L&D such as finance, disaster response, sectoral impact, data, tracking and case studies, countries showed mixed results (Figure 4).

Figure 4: References to specific L&D elements in Climate Promise-supported SIDS' NDCs (%)



Of the SIDS' NDCs, **23 (72 percent)** include scientific data or research to provide basis for past, present and/or projected climate impacts and/or the subsequent losses and damages.

EXAMPLE

Belize's NDC includes detailed climate change impact projections, such as a rise in temperature of between 2°C and 4°C by 2100, a 7-8 percent decrease in the length of the rainy season, a 6-8 percent increase in the length of the dry season and a 20 percent increase in the intensity of rainfall over very short periods.

22 SIDS' NDCs (69 percent) include reference to sector-specific loss and damage. The primary sectors referenced are agriculture, fisheries and tourism. Other sectors referenced include health, water and infrastructure.

EXAMPLE

Haiti's NDC includes a specific section on loss and damage, which breaks down the loss and damage action costs by vulnerable sectors. For example, the cost of agricultural insurance schemes and reconstruction of vulnerable and dangerous roads is calculated. The section covers nine sectors in total, such as energy, health, fisheries, water resources, and coastal areas.

16 SIDS' NDCs (50 percent) include reference to disaster response and recovery. While the majority of NDCs include reference to adaptation and disaster risk reduction actions to minimize loss and damage, many did not go into details on post-impact disaster response actions needed to address loss and damage from climate impacts.

EXAMPLE

The **Dominican Republic** will work to establish a system that will disburse rapid payments to the affected in the face of extreme events induced by climate change. **St. Vincent and the Grenadines** intends to strengthen their disaster management response by devising strategies that will help the National Environment Management Organization (NEMO) address impacts of sudden and slow onset events. In its current environmental management plan, the country includes a strategy to establish integrated frameworks to respond to and recover from causes and impacts of natural phenomena on the environment at the community and national levels. **Cuba** plans to improve its Civil Defense System with the active participation of communities and increased use of science and technology. The aim is to develop effective and efficient disaster management that makes possible the best economic evaluation of the impact of disasters and enables the rapid and organized recovery of areas and affected populations.

Of the SIDS' NDCs, **13 (41 percent)** include reference to finance for loss and damage, including insurance or other prearranged finance. For example, several NDCs also specifically raised the need for finance for averting, minimizing and addressing loss and damage.

EXAMPLE

Guinea-Bissau's NDC referenced the development of agricultural insurance products that will protect farmers from the impacts of changing, unpredictable weather patterns induced by climate change. Similarly, **Kiribati** will establish financial mechanisms to address the risks facing communities and public assets, with a focus on climate risk insurance and building on existing initiative and programmes. **Fiji** notes that the country has limited financial resources for climate actions, a situation exacerbated by the significant economic losses Fiji incurs through sudden onset events.

12 (38 percent) of SIDS' NDCs include specific case studies or examples of loss and damage-related events.

EXAMPLE

Seychelles' NDC includes an example from 2013 Tropical Cyclone Felleng, which caused severe flooding and landslides in several parts of the country. Heavy rainfall overwhelmed existing drainage systems and retaining walls, causing floods, landslides and rockfalls, resulting in serious damage to homes, public buildings, roads, bridges, drainage systems, water and sanitation systems, crops and farms. The total loss and damage was estimated at SR104 million (US$8.4 million), equivalent to 0.77 percent of the country's GDP. **Dominica** details impacts of Tropical Storm Erika, which resulted in total damage and loss of EC$1.3 billion (US$483 million), equivalent to approximately 90 percent of Dominica's GDP. Two years later, Hurricane Maria - the most extreme hurricane to ever impact the island - resulted in damage that was approximately 226 percent of the country's GDP, resulting in a 14.7 percent decline in GDP.

Of the SIDS' NDCs, **10 (31 percent)** include information on loss and damage tracking, reporting and/or databases, whether under current or future development.

EXAMPLE

Nauru plans to conduct a national long-term risk assessment (LTRA) on climate change loss and damage. The LTRA is conducted through processes consistent with those agreed and established under the WIM and includes specific elements, such as economic and social costs of the impacts associated with climate risks, NELD, and options to manage, transfer, and share risks, as well as for recovery.

3.3 Select examples of SIDS NDCs with in-depth loss and damage elements

Caribbean Region

Antigua and Barbuda

Antigua and Barbuda's NDC robustly features loss and damage in a section dedicated to loss and damage response. The NDC provides country context and specific examples to explain its climate vulnerability:

"The increasing frequency and intensity of hurricanes is already evident in the country with the return rate of Category 4 hurricanes rising from 1 in 50 years in the first half of the 20th century to 1 in 10 years. In 2017, the country experienced and was affected by its

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first recorded Category 5 hurricane in history — Hurricane Irma. Hurricane Irma, directly hit Barbuda and resulted in the destruction of ~95% of all infrastructure on the island. The combined impact of the 2017 hurricanes amounted to ~$136 million in damages and ~$19 million in post hurricane economic losses, with total recovery costs estimated at $222 million."

Antigua and Barbuda's NDC details the challenges the country has experienced with both sudden onset events (tropical cyclones, droughts, heat waves, storm surges and flooding) and slow onset events (SLR, desertification and ocean acidification). The section goes on to provide information on economic consequences of loss and damage, which "reduces the fiscal space of a country and slows down ongoing development to address the immediate needs of the climate-related extreme weather event, or slow onset event." It reflects that the finance needed for addressing loss and damage also often adds to the high debt burdens of the country. The NDC also provides specifics on the impacts to the private sector, including:

- Temporary or permanent loss of livelihoods (for e.g., loss of tourism-related job post-hurricane or loss of crops due to a severe drought).
- Damage to or permanent loss of assets (for e.g., damage to the floor of a home or destruction of a hotel as result of a hurricane).
- Capital flight (for e.g., international financial institutions closing/selling local branches to avoid loss and damage of their asset from SLR or more frequent and intense hurricanes).
- Temporary or permanent increased costs of goods and services (for e.g., increased insurance premiums, food, building supplies).

The NDC proposes the implementation of "gender-responsive national schemes that will offer risk management tools, such as parametric or indemnity insurance that will allow farmers, fishers, residential and commercial business owners to cope with losses resulting from increased climate variability." This would allow "farmers, fishers, and residential and business owners to have access to comprehensive and tailored national programmes that allow them to affordably manage and transfer risks resulting from increasing climate variability."

Antigua and Barbuda goes on to identify impacts on the energy sector following a sudden onset event. For example, "critical infrastructure networks, including power and water supply can be disrupted for 3 - 24 months, while damage to communication and transport infrastructure disrupts associated services for up to 6 months. These disruptions have considerable impacts on the country's economy."

Furthermore, Antigua and Barbuda shares insights on NELDs, such as consequences on population, way of life, health, human mobility and disaster displacement.

The section includes specific actions to increase adaptive capacity and disaster risk reduction actions to help build resilience and minimize overall loss and damage, such as backup renewable energy systems, while still acknowledging that some level of loss and damage is beyond prevention given the increasing severity of climate impacts.

Pacific Region

Vanuatu

Vanuatu's NDC also features a dedicated section on loss and damage. The section details the country's vulnerability to both sudden and slow onset events, economic and NELD, and its political commitment to advancing the loss and damage agenda at the global level. Vanuatu's Ministry of Climate Change includes the National Disaster Committee and the National Disaster Management Office, which allows for internal coordination between disaster and climate-related officials. Notably, the section encompasses 12 specific targets/commitments that assess the country's readiness to receive loss and damage support and includes explicit linkages to the National Sustainable Development Plan and Sustainable Development Goals, conditionality (as percentage), as well as finance required to achieve each target. Vanuatu estimates the cost for achieving the targets is approximately $177.67 million over a period of 10 years.

The loss and damage targets identified include:

1. Vanuatu commits to contribute to and engage constructively with the UNFCCC, Paris Agreement, WIM for Loss and Damage and associated committees, bodies and networks thereof.
2. Vanuatu commits to establish mechanisms to assess and redress loss and damage incurred as a result of climate change.
3. Vanuatu commits to developing a loss and damage implementation framework, including risk sharing, insurance and compensation approaches at replacement value by 2030.

4. Vanuatu commits to conducting assessments on potential and actual loss and damage across the country linked with ongoing vulnerability assessment processes, and quantifying losses (e.g. food security, culture, ecosystem services and integrity), particularly though the Post Disaster Needs Assessment approach.
5. Vanuatu commits to ensuring that the design and construction of public and other major infrastructure and development projects consider current and projected risks in order to minimize, avert and address loss and damage, especially by developing and adhering to climate-proofed building codes, environmental impact assessments, regulations and development guidelines.
6. Vanuatu commits to implement affordable microinsurance and "climate insurance" models to provide additional safety nets to remedy loss of income, damage to housing, infrastructure, crops and other assets from climate disasters.
7. Vanuatu commits to facilitate community-led plans to ensure connections to ancestors and relatives buried in original locations are sustained, and as an important cultural aspect of relocation planning.
8. Vanuatu commits to provide continuing support for life-saving and essential health care to affected populations, including rapid measures to repair and/or rebuild damaged health facilities, and erect temporary health facilities with particular attention on restoring WASH infrastructure.
9. Vanuatu commits to address the needs of and provide durable solutions for people affected by displacement, including people at-risk of displacement, displaced people, internal migrants, people living in informal settlements, and host communities by enabling ministries to work together to provide protections for people at each stage of the displacement cycle.
10. Vanuatu commits to careful consideration of planned relocation as an option of last resort, and where communities do need to move away from hazards, either temporarily or permanently, Vanuatu aims to ensure that lessons learned from previous relocation experiences globally and in the Pacific are considered, so that movement takes place with dignity and with appropriate safeguards and human rights protections in place.
11. Vanuatu commits to expand its calls for finance to address the loss, damage, harm and injury suffered by our people and our nation resulting from climate change (including quantifiable as well as intangible and non-economic impacts) within the multilateral climate regime.
12. Vanuatu commits to pursue finance and other forms of support for loss, damage, harm and injury resulting from climate change (including quantifiable as well as intangible and non-economic impacts), beyond the UNFCCC where the multilateral climate processes fail to adequately address the issue.

Atlantic, Indian Ocean and South China Sea (AIS) Region

Mauritius

Mauritius' NDC does not include a loss and damage section and makes no explicit reference to “loss and damage.” However, this NDC provides an interesting example of how an NDC can prioritize loss and damage, even without explicit mention of the term.

Mauritius’ NDC highlights a commitment to enhancing disaster response mechanisms, including for infrastructure sectors. The NDC also includes its Adaptation Communication, which features highly detailed scientific information on sudden and slow onset events and subsequent economic and NELD. For example, “According to the country’s disaster risk profile (DRP Mauritius, 2016), flooding is the second-largest risk after cyclones, causing 20 percent of direct economic losses associated with disasters and will experience on average around $22 million yearly direct losses from flooding. It is also estimated that nearly 60 percent of the direct losses from flooding are from the residential sector and 20 percent from the commercial sector.” The NDC also estimates average annual emergency costs for tropical cyclones at nearly $21 million. A 100-year projection provides an estimate of $1.9 billion loss from tropical cyclones. While there are not specific loss and damage targets listed, it is clear that the country is already experiencing significant loss and damage and identifying projected loss and damage scenarios within its NDC submission.

4. Conclusion

4.1 Key takeaways from analysis

1. **Loss and damage is a priority for SIDS** as demonstrated by the loss and damage elements included in their NDCs. All 32 Climate Promise-supported SIDS include at least one loss and damage related element identified in this research. Some SIDS detail the loss and damage that they have experienced and/or are expected to experience. Others go on to provide the specific actions that they plan to take to address loss and damage within the NDC. Further research to assess loss and damage elements in developing country NDCs more broadly would help understand how SIDS NDCs compare to other country groupings. Additional research can also further explore the level of detail of the loss and damage elements in each NDC, as well as other potential elements beyond those in this analysis.
2. **There is currently more information in NDCs on averting and minimizing than addressing loss and damage.** As countries were not provided exact guidance on how to incorporate loss and damage considerations within their NDCs and given the prior focus on averting and minimizing loss and damage in climate negotiations, SIDS' NDCs are currently limited in their information on post-impact support.
3. **The articulation of specific needs related to loss and damage are increasingly reflected in SIDS' NDCs, including capacity building, data, finance, agreed frameworks, guidance, and/or taxonomy.** Given the lack of an agreed standard framework, assessment methodology or taxonomy for loss and damage, countries will need further guidance on monitoring and tracking loss and damage that is pragmatic and responsive to the needs and capacities of SIDS and identifies associated actions, as well as related costs. It is important that any guidance received be country-driven and flexible to allow for context and/or community-specific approaches. Loss and damage data and associated actions can vary by country, region and community. SIDS have also identified finance for averting, minimizing and addressing loss and damage as a critical challenge. Availability and accuracy of loss and damage-related national and local-level data was also identified as a gap for many SIDS.
4. **There is limited information in Climate Promise-supported SIDS' NDCs on how marginalized communities are impacted by loss and damage and the tailored support they require.** While all Climate Promise-supported SIDS' NDCs include some aspect of loss and damage, there was limited information on loss and damage implications for marginalized communities. This is also an important aspect of climate justice, as women and girls, Indigenous Peoples, people with disabilities, refugees and other marginalized groups are especially vulnerable to climate impacts and need tailored post-impact support. Further research is needed to understand the specific priorities, considerations and needs of these groups, while ensuring that they are consulted in the process.

4.2 Expectations for L&D inclusion in future revisions of NDCs

There is already an increasing demand from countries for support on incorporating Loss and Damage into the next round of NDCs. As SIDS continue to experience intensifying climate impacts, many countries are looking for how to reflect loss and damage in their NDC. Loss and damage discussions under the UNFCCC are also continuing to advance. With the operationalization of the SN and the new Fund and funding arrangements, along with voluntary reporting on loss and damage under the Enhanced Transparency Framework and in the L&D elements of the COP28 decision for the Global Stocktake (e.g. the request for the WIM Executive Committee to prepare voluntary guidelines for enhancing the collection and management of data and information to inform the preparation of Biennial Transparency Reports), new and/or updated NDCs will likely include more explicit linkages to new and existing L&D mechanisms.

For example, **Belize** is exploring the development a National Framework on Climate Induced Loss and Damage. **Timor-Leste** is already using the national disaster inventory (DesInventar) and the Timor Emergency Response System to provide voluntary loss and damage reporting under its Biennial Transparency Report. The reporting looks at specific sectoral loss and damage indicators from both sudden and slow onset events. Existing relevant tools, such as loss and damage databases and Post-Disaster Needs Assessments, are currently undergoing updates to utilize the latest technology and to meet the needs of countries under the new UNFCCC L&D architecture.[16] In addition, there will likely be more information in next generation NDCs on actions to address and respond to loss and damage, which could advance the necessary coordination between disaster management authorities and climate, environment, and other relevant ministries and institutions at all levels.

4.3 UNDP's onging support to countries on loss and damage

UNDP, through its extensive experience across the spectrum of loss and damage action, and drawing on relevant portfolios, such as climate change, environment, crisis prevention and recovery, disaster risk reduction, health, gender, governance, justice and rule of law, human mobility, climate security, transparency, and more, is responsive to country needs related to loss and damage. UNDP, along with partners, seeks to help accelerate action in averting, minimizing and addressing loss and damage and ensuring sustainable development through scaled up and holistic policy, programme and technical support. This publication is part of UNDP engagement in this mission.

UNDP is committed to assisting countries to enhance future NDCs. In many cases, this includes support for when requested, with new and/or updated loss and damage elements tailored to the needs identified by countries and communities. This could include continued support for developing loss and damage policy and planning, capacity building, monitoring and assessments, including through exsiting tools and mechanisms such as updated Post-Disaster Needs Assessments and loss and damage databases, and strengthening access to finance for loss and damage.

16 Rajesh Sharma (2023). Using Data to Track Loss and Damage from Climate Change. Blog post, UNDP.

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