

GGGI Technical Report No.34

GAPS AND NEEDS
IN ADDRESSING
LOSS AND
DAMAGE:
INSIGHTS FROM A
MULTI-COUNTRY
SURVEY



July 2024





Part of GGGI's technical report series

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Executive Summary

This report presents the results of a global survey on readiness to address climate related loss and damage (l&d) that GGGI conducted among its member countries. The survey was designed to understand and assess member countries' gaps and needs in planning and implementing l&d related activities. 32 respondents from ministries and government agencies across 20 countries provided invaluable firsthand insights. The survey delved into member countries' current readiness in securing and managing funding; building knowledge and capacity; available l&d policies; and the planning and implementation of l&d activities.

The survey highlighted critical areas requiring immediate attention to enhance I&d activities in vulnerable countries amid escalating climate change impacts. The key findings indicate that there are substantial gaps in understanding, financial resources, data availability, as well as the policy and institutional frameworks necessary for the effective planning and implementation of I&d activities. First and foremost, a significant knowledge and capacity gap among government stakeholders slows down the development and implementation of effective strategies - necessitating comprehensive capacity-building efforts across diverse sectors and various levels in the government. Financial constraints further add a barrier for I&d as there is an absence of readily accessible funds - both domestically and internationally. This highlights the need for innovative financing mechanisms and enhanced international cooperation to mobilize resources efficiently. It also emphasizes the need to enhance the capacity of stakeholders to access finance for I&d activities. Additionally, a pronounced data gap undermines the ability of member countries to accurately assess and respond to climate-related losses. This means there needs to be improved data collection, analysis and dissemination strategies. Last but not least, the lack of robust policy frameworks and institutional **governance** further impedes effective I&d action. It underscores the need for clear policy directives and strengthened institutional capacities that are aligned with both national and international climate commitments. Addressing these challenges through collaborative, multi-sectoral efforts and leveraging technology and international cooperation will be pivotal in enhancing resilience and support for communities affected by climate change.

To address the challenges identified by respondents, this report makes a number of recommendations - some of which were suggested by respondents themselves - to tackle the issues in a way that is tailored to the local context. The recommendations are as follows:



Capacity and knowledge

- Conduct a comprehensive national gap and needs assessment to identify specific areas where understanding is lacking and needs strengthening.
- Take a multi-sectoral approach to capacity-building training and processes - targeting diverse stakeholders such as decision-makers, local communities, the private sector and the research community.
- Target a comprehensive range of capacity-building activities aimed at improving understanding and skills related to different aspects of I&d such as data management, assessments, financing mechanisms, governance structures and policy formulation.
- Improve coordination and alignment between national actors from national negotiators or focal points within the UNFCCC framework to national entities involved in the planning and implementation of I&d activities.



Finance

- Mainstream I&d into domestic budget planning in such a
 way that it does not put additional fiscal burden on the
 countries and so the spending does not come at the
 expense of other development areas in the country.
- Explore innovative financing mechanisms to close the gap in operationalizing the I&d fund - or possibly introduce additional financing for I&d. Financing mechanisms should provide fair conditions and not have an impact on the indebtedness of vulnerable communities.
- Implement ethical guidelines and transparency in climate finance that addresses I&d and considers the well-being of vulnerable communities and natural systems.
- Involve the private sector in planning activities to address climate-related loss and damage as providers of technical expertise, innovation and risk capital.



Data

- Prioritize funding and support for research initiatives aimed at improving data collection, analysis and dissemination related to I&d.
- Promote south-south cooperation for knowledge-sharing and capacity-building among countries facing similar challenges of climate change.
- Plan and implement capacity-building activities within
 national meteorological and statistical agencies to equip
 them with the necessary tools and capability to generate
 reliable climate-related I&d metrics. Consider involving
 the insurance industry in such training to utilize their
 expertise in carrying out similar work in their industry.
- Encourage collaborations between academic institutions, research organizations and policy makers to leverage expertise and ensure that evidence-based policy making and interventions can be planned and implemented.



Policy and institutional governance

- Evaluate existing policies reviews and assess gaps or inconsistencies in addressing I&d with a focus on integration into either existing or new climate change adaptation and disaster risk reduction strategies.
- Define clear roles and responsibilities of governing bodies and establish a specific mandate for addressing l&d.
- Develop integrated approaches that consider building resilience and I&d to reduce future climate impacts.
- Mainstream I&d into national planning process and explore opportunities to include them in the upcoming enhancement of the National Determined Contribution (NDC).
- Promote an inclusive approach to decision-making in the planning and implementation process by involving civil society organizations and local vulnerable communities.
- Overall, the survey uncovered several needs to enhance countries' readiness for I&d activities. Strategic approaches to accessing funds particularly for the most vulnerable countries and tailored knowledge and capacity enhancement initiatives were highlighted. These survey results offer valuable insights for I&d focal points, policymakers and implementing partners seeking to understand the detailed needs of vulnerable countries.

Abbreviations

ARC African Risk Capacity

COP Conference of the Parties

CRIFF Caribbean Catastrophe Risk Insurance Facility

GCF Green Climate Fund

GGGI Global Green Growth Institute

I&d Climate-induced loss and damage (I&d)

L&D FundLoss and Damage FundLDCLeast Developed Countries

LT-LEDS Long-Term Low Emission Development Strategy

NAP National Adaptation Plan

NDC Nationally Determined Contributions
SNLD Santiago Network on Loss and Damage

UAE United Arab Emirates

UNFCCC United Nations Framework Convention on Climate Change

WB World Bank

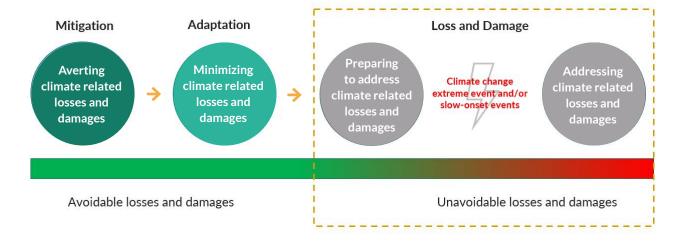


1. Introduction

Climate-induced loss and damage (I&d) refers to the current and projected long-term irreversible and adverse impacts of climate change. It arises from the slow onset of climate change and the extreme climate events that cannot be effectively averted or minimized through climate mitigation and adaptation measures. This includes both the economic and non-economic impacts of climate change - such as loss of life and livelihoods; loss of culture and heritage; damage to infrastructure and ecosystems; and the

costs associated with recovery, reconstruction and rehabilitation. Climate-induced I&d pose formidable challenges to vulnerable nations worldwide. Recognizing this imperative, the Loss and Damage (L&D) Fund was established at COP 27. The fund is intended to empower vulnerable countries to develop and implement specific activities to address irreversible climate-induced I&d. These are to be tailored to their unique environmental, social and economic contexts

Figure 1: Distinction between mitigation, adaptation and I&d relation actions.



Many developing nations may lack the financial, technical and institutional capacity to effectively identify, plan and implement I&d programs. The concept of I&d itself is relatively new in the climate change discourse and the scope - and mechanisms for addressing it - are still being intensively debated. This novelty adds to the complexity of operationalizing programs as there are not yet widely established methodologies or best practices within the climate governance framework and the discourse of I&d.

Essentially, I&d-related activities should aim to address the residual impacts of climate change that cannot be managed through adaptation measures. They can be both economic and non-economic. They may include identifying and addressing the causes of I&d and conducting preparatory works to address climate related loss and damage. Very often, the boundary between climate adaptation actions and activities to address I&d are not always clear-cut. This ambiguity has big implications for international climate negotiations - particularly in regard to the responsibility of financing and support. What is important is that the financial support for I&d related activities should be new and additional finance - it should not divert resources away from existing climate or adaptation funding pools. At a national level, the distinction between both areas could also influence policy and planning priorities - especially on which area of actions should be prioritized over the other. Regardless, efforts to enhance resilience should progress alongside preparations to address I&d.

The specific challenges that countries are facing in operationalizing activities to address I&d differ to some extent due to sociopolitical contexts; the distribution of resources; vulnerabilities within a country; the types of climate risks prevalent in the region; international support; and the general capacity of the country to respond to challenges. Given these diverse factors, programs must be tailored to the specific contexts, vulnerabilities and capacities of individual countries and communities to be effective. This requires a good understanding of local conditions and a collaborative approach that involves local stakeholders in the design and implementation of loss and damage strategies.

The findings presented in this study are based on an I&d readiness survey conducted by GGGI which had the aim of identifying gaps and needs of I&d in different countries. The aim of this report is threefold:

 Firstly, this report aims to support the engagement of Least Developed Countries (LDC) in relation to l&d issues in UNFCCC processes. This will be undertaken through consultations and by offering these findings as a basis for dialogue with the LDC Group.

- Secondly, considering the absence of a standardized framework for Loss and Damage Needs Assessments [1] and the forthcoming establishment of the Santiago Network on Loss and Damage (SNLD), the report contributes insights into the gaps and technical support requirements essential for countries to effectively address climate-induced losses and damages.
- Thirdly, in alignment with its mandate to increase member countries' resilience, the Global Green Growth Institute (GGGI) intends to support its member countries through readiness programs for l&d. These initiatives will be inspired by the outcomes of the survey and will be designed to enhance the capacity and knowledge of member countries. The initiatives are designed to provide technical assistance to member countries ensuring they are well-prepared to effectively plan and leverage the L&D Fund upon its full operationalization.

The survey employed a robust methodology which incorporated both quantitative and qualitative approaches. It was comprised of a mixture of multiple choice and free text answers. The participatory survey processes were coordinated by GGGI regional offices and conducted by country teams with the involvement of government stakeholders and various ministries and governmental agencies. It should be noted that the survey was conducted in only 20 selected countries, which are predominantly GGGI member states (see Chapter 1.2 for more information on the respondents). Specifically, the survey targeted government officials who are not directly involved in the UNFCCC negotiation processes. This was done to understand the general perceptions and unbiased opinions of stakeholders expected to address climate-induced loss and damage in their respective sectors in the future. To gain a deeper understanding of the outcomes and incorporate in-depth qualitative insights, targeted semi-structured interviews were conducted with a selected number of respondents from several participating countries. In addition, the results were presented and discussed through a series of consultations involving both the former and the incumbent Chairs of the LDC group to ensure informed dialogue on the findings. The initial survey outcomes were presented and discussed at the COP28 in the United Arab Emirates within the Commonwealth Pavilion.

The survey focused on areas such as a general understanding of l&d; improving policy frameworks; strengthening institutional setups; and better mobilizing resources. The structure of the survey is presented in the following section of this report. The complete questions of the survey are presented in the Annex. We invite other organizations to utilize our findings in their efforts to assist vulnerable countries - especially in designing and implementing capacity building activities as well as in developing projects and readiness programs.

1.1 Structure of the survey

The survey comprised of 25 questions. The question had the aim of identifying gaps and needs in the planning and implementation of I&d-related activities in six categories: (1) Governance, (2) Capacity, (3) Knowledge, (4) Implementation, (5) Finance, and (6) Climate Adaptation.

Figure 2: Categories of gaps and needs considered in the survey.



KNOWLEDGE: In the context of the survey, knowledge encompasses theoretical and empirical understanding of climate change impacts. It also involves data and information that is necessary for the development of vulnerability assessments and financing mechanisms which enable informed decisions to be made and effective strategies to be created. The respondents were asked to provide information on the challenges that they face as a result of limited knowledge as well as any resulting obstacles that they face in planning l&d activities. In addition, the survey also attempted to capture the data requirements that local decision-makers feel is lacking, and which hinders the planning and implementation process.

CAPACITY: Capacity refers to the operational and functional

abilities of individuals and institutions responsible for planning and implementing l&d activities. This includes the ability to access, manage and effectively use available resources. The survey questions about capacity focused on collecting information from the respondents on capacity-building initiatives that they think is relevant and necessary to enhance the skills of decision-makers, practitioners and institutions involved in l&d-related activities in the country.

GOVERNANCE: Governance encompasses policies, institutions, decision-making processes and coordination mechanisms that determine how l&d funding is accessed, distributed and used within a country. Under this category, the respondents were requested to provide input to better understand the strengths and weaknesses of existing policies and the institutional framework of the current governance framework.

FINANCE: In the context of I&d, finance encompasses securing, allocating and managing resources to address I&d. Relevant financing mechanisms can come from a wide range of funding sources including national budgets; international aid; private sector investment; and innovative financial instruments. Under this category, respondents were requested to provide information on any available source of funding for I&d activities - both domestic and international - or plans to establish designated national funds for I&d-related activities.

IMPLEMENTATION: Successful implementation involves translating policies, strategies and plans into concrete actions and projects on the ground. It requires effective coordination, resource allocation and monitoring to ensure that I&d funding initiatives achieve their intended results. The survey aimed at capturing the challenges associated with implementation of I&d projects and initiatives. This included identifying existing and potential barriers, policy challenges and challenges in community engagement that hinders the successful execution of I&d initiatives.

ADAPTATION: Adaptation is an integral aspect that cannot be overlooked in discussions surrounding l&d. This category was designed to ask how the respondents evaluate the level of connection between adaptation and l&d and seek opportunities for collaboration. It also sought to identify any barriers in adaptation efforts and in finance related to l&d.

The survey is complemented by a checklist of the types of I&d covering economic and non-economic I&d. This was intended to determine whether there were any planned or ongoing programs or discussions within the country to address these particular types of I&d. The checklist of types of losses and damages provided insight into priority areas across countries and regions that necessitate collective efforts from the global community to address them.

Economic losses and damages

- Crop failure and reduced agricultural & aquaculture productivity
- Damage to infrastructure (including power sector assets)
- Business operation loss
- Loss of physical property
- Loss of tourism revenue
- Increased healthcare costs, insurance, and reinsurance
- Displacement of communities and associated costs of relocation and infrastructure rebuilding

1.2 Profile of respondents

The survey was sent out to all GGGI member countries and countries that GGGI has an ongoing operation. It targeted current government units or those anticipated to be responsible for the decision-making, planning or implementation of I&d activities. The main target respondents of the survey were government officials. This was as they currently hold responsibilities within their respective portfolios and access to resources and knowledge related to I&d within their countries' social, economic and environmental contexts. A total of 32 responses were received from 20 countries which can be found listed in Table 1. The majority of the responses were from ministries and government agencies. There were also some governmentaffiliated GGGI country team staff that submitted answers. The respondents held different roles in diverse ministries and national authorities including (I) Agriculture, (II) Environment, (III) Finance, (IV) Planning and (V) Economic Development. Respondents were also individuals from the National Disaster Risk Management Commission, the National Environment Management Authority, the Office of the Prime Minister and the Department of Sustainable Development.

Non-economic losses and damages

- Loss of human lives
- Loss of cultural heritage and traditional knowledge
- Loss of territory due to sea-level rise
- Psychological and emotional impact
- Loss of biodiversity and ecosystem services
- Disruption of social cohesion and community relationships
- Impact on education and human capital development
- Loss of productive land for agriculture and livestock

Table 1: List of countries of the respondents

Cambodia
Côte d'Ivoire
Cook Islands
Dominican Republic
Ecuador
Ethiopia
Federated States of Micronesia
Fiji
Mexico
Morocco
Nicaragua
Niue
Palau
Philippines
Rwanda
Senegal
Togo
Uganda
Uzbekistan Zambia



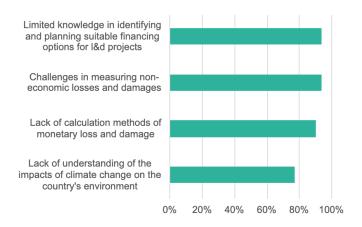
2. Survey results: Gaps and Needs to Address Climate-Induced Loss and Damage

2.1 Knowledge and Capacity

Based on the survey findings, as illustrated in Figure 3, respondents highlighted several key areas where knowledge of I&d is notably lacking. Among these, two critical gaps stood out: the challenge in **identifying and planning appropriate financial mechanisms for I&d initiatives**; and the difficulties associated with **quantifying noneconomic losses and damages**. Both of these were emphasized by 94% of respondents as priority areas. Close behind, 90% of respondents identified the **absence of robust methodologies for calculating economic losses and damages** as a significant concern. Additionally, 78% of respondents reported difficulties in devising I&d programs - attributing this to an **insufficient understanding of**

climate change's specific effects within their national context. While not as commonly noted, the survey also uncovered that the lack of standardized l&d related terminology at the national level - especially in the clear distinction with adaptation - poses a problem.

Figure 3: Priority knowledge gaps that countries would like to address.



Regarding the data types considered important for improving the understanding of I&d and strengthening the planning of related activities within the country, community-level impact surveys were identified as the most important data set required for designing effective I&d strategies. This necessity was closely matched by the demand for comprehensive climate risk evaluations in vulnerable regions - alongside historical climate data and trends

- with both short-term and long-term climate projections receiving similar levels of interest from countries. Some respondents also highlighted the need for climate modeling and scenarios to better predict climate-related losses and damages.

The survey additionally inquired about the challenges respondents face - or anticipate - in planning for I&d-related knowledge enhancement activities in their countries. A significant 94% pointed to the **absence of financial resources for knowledge enhancement activities** within their countries as the foremost hurdle. This financial constraint is seen as the underlying issue that indirectly contributes to all other challenges identified by the respondents. Moreover, 82% of participants reported difficulties in **both quantifying and communicating impacts**. This suggests that while obtaining detailed data and conducting vulnerability assessments are critical, it is equally vital to distill and simplify this information so that it can be effectively utilized by policymakers in their decision-making processes.

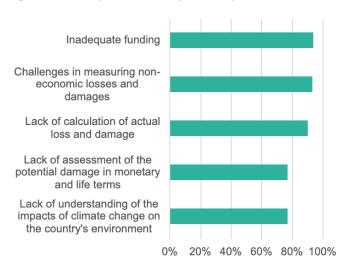
94%

of the respondents pointed to the lack of financial resources for knowledge enhancement activities

An additional significant issue identified is the scarcity of technical personnel to lead and facilitate capacity-building activities. This is closely linked to challenges mentioned by some respondents regarding the integration of academic institutions within various governmental bodies. Despite the fact that research and surveys conducted by academic institutions can foster a deeper understanding, the insights generated do not often find their way back to the policymakers' tables. Likewise, these academic entities frequently do not receive relevant information and feedback from governmental agencies. The concept of I&d - being a relatively recent addition to the domains of climate change and risk management presents its own set of challenges. This includes varying degrees of understanding among different stakeholders which was a concern echoed by 79% of survey participants. They elaborated that the novelty of I&d - alongside competing priorities and the lack of a clear distinction from adaptation and disaster risk reduction strategies - complicates the process of grasping and promoting awareness around I&d issues.

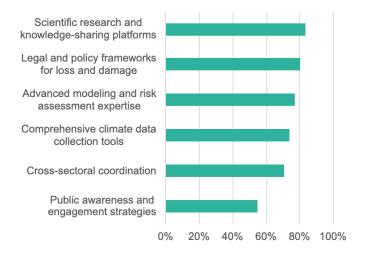
There are gaps in capacity in terms of the skills, tools and data needed to plan and operationalize I&d activities. The need for improved knowledge dissemination on loss and damage becomes evident as over 80% of respondents identified that the foremost challenge in addressing I&d is a lack of capacity for scientific research and inadequate knowledge-sharing platforms. The second most significant capacity gap pertains to designing legal and policy frameworks for I&d. Proficiency in climate impact modeling, climate risk assessments and climate data collection tools followed with slight differences.

Figure 4: Challenges in enhancing knowledge in I&d



To address the knowledge and capacity gaps, the survey explored how capacity-building initiatives can be tailored to meet the needs of stakeholders involved in I&d activities. A significant number of respondents stressed the importance of encompassing a range of areas in capacity-building programs - such as improving understanding of the I&d concept; development of plans and strategies; formulation of guidelines and policies; as well as technical and financial proficiency in the planning and implementation of I&d activities. Several responses highlighted the significance of conducting a detailed needs assessment to inform capacity-building initiatives and address specific gaps. Furthermore, a consistent emphasis was placed on the engagement of stakeholders, fostering awareness and cultivating a shared understanding among various actors across different levels.

Figure 5: Capacity gap to effectively address I&d



The emphasis placed on these knowledge and capacity gaps by the respondents - who are mainly government officials engaged in policy formulation - lends significant credibility to these findings. There is a clear need for improved coordination and alignment among

important stakeholders. This ranges from negotiation focal points within the UNFCCC framework to national entities involved in I&d activities (such as early warning systems and disaster preparedness). Ensuring a transparent exchange of information among these actors is essential for facilitating informed decision-making and implementing effective measures to bridge the identified gaps.

damage - such the Philippine Development Plan and the Disaster Risk Management plans of Ethiopia and Philippines. About 50% of respondents indicated that I&d should be considered in upcoming or enhanced national strategies or policies in the future. This underlines the importance of improving the understanding of I&d among policymakers in order to propose effective strategies and policies.

2.2 Governance

One of the biggest challenges in terms of governance is the **absence** of a designated government division and mandate responsible for addressing climate-related losses and damages. This was highlighted by 42% of respondents and underscores the inadequate readiness for loss and damage within governance frameworks. The majority of remaining respondents expressed an inability to provide an answer. When asked about other existing institutions that could potentially be involved in addressing losses and damages at the national level, respondents presented a varied list including Disaster Risk Management Units; the Ministry of Environment; the Ministry of Climate Change (or the Climate Change Department); and the Ministry of Finance. This diversity underscores varying perceptions of mandates and expectations regarding the responsible entity for managing climate related losses and damages in the future.

42%

of the respondents indicated the absense of a designated government entity and lack of mandate as a challenge

Another challenge – referred to by 39% of respondents - is the absence of national policies or strategies regarding I&d. When asked about any existing strategies regarding I&d that is available in the country, the most frequently mentioned strategies were disaster risk management strategies - such as Ethiopia's National Policy and Strategy on Disaster Risk Management; the Philippines' Disaster Risk Reduction and Management Act; and the Dominican Republic's National System for Prevention, Mitigation and Response. The National Adaptation Plan (NAP) - which indirectly addresses loss and damage at different levels - was the second most mentioned strategy. Other mentions included Nationally Determined Contributions (NDC); Green Growth strategies (such as Rwanda's Green Growth and Climate Resilience Strategy); National development plans (such as the Philippine Development Plan 2023-2028); and sector-specific policies (like water management and conservation policies).

However, not all of the mentioned strategies explicitly include strategies to address climate-related loss and damage and provide clear distinctions between adaptation. The responses exhibit varying levels of understanding and standards in determining the scope of l&d - as is reflected in answers regarding a respondent's knowledge of existing strategies. Going through the mentioned strategies, only a few respondents provided specific examples of policies and strategies that are directly intended to address loss and

Box 1: Adaptation and Loss and Damage

Adaptation measures and efforts to address loss and damage (I&d) are two distinct approaches to addressing the impacts of climate change. Adaptation focuses on proactively adapting and preparing for a changing climate with the primary goal of reducing vulnerability and increasing resilience to foreseeable climate risks. In contrast, I&d is a reactive approach that addresses the unavoidable and residual impacts of climate change that cannot be effectively mitigated or adapted to. While adaptation aims to minimize future risks, I&d focuses on managing, responding to, and recovering from, existing and unavoidable impacts of climate-related events.

The survey explored whether climate adaptation and I&d strategies should be linked or clearly separated. Interestingly, there was no clear consensus among respondents and responses were almost evenly split.

"There are complementary points. However, regarding the impacts of climate change,

it is important to treat I&d as a stand-alone topic."

"Both can be within the same strategy or policy but treated as two separate issues."

50%

of the respondents indicated that adaptation and I&d strategies and policies be linked

It cannot be clearly identified if the motivation behind the reason for not differentiating adaptation and I&d is due to their very similar nature - or if it is a strategic way to link them. However, it is more likely that institutional reality makes it difficult for I&d to be separated from adaptation. With limited economic and human resources, it might be too idealistic to keep the two branches distinct. However, those in favor of linking strategies emphasized the importance of clarifying that financing for I&d should not be sourced from adaptation funding; instead, there should be additional funds allocated to address loss and damage separately. Respondents also mentioned that a clear definition that differentiates I&d and adaptation is needed to improve their understanding and planning ability.

2.3 Finance

Understanding financing needs and gaps is essential for ensuring a timely response to loss and damage. The survey findings reveal that only 23% of respondents were aware of existing funding sources for I&d initiatives within their countries - with the majority of respondents reporting that they relied on international aid from Multilateral Development Banks or International Organizations rather than national budgets. A few examples cited included parametric insurance products and immediate disaster response insurance mechanisms such as the Caribbean Catastrophe Risk Insurance Facility (CRIFF). There was also a single mention of a domestic funding strategy by the government of the Philippines' which involving climate risk insurance, credit financing and a calamity fund.

42%

of the respondents are unaware of international funding sources for I&d activities, including the L&D Fund

When questioned about familiarity with any international funding sources for I&d, 42% of respondents admitted that they were unaware of any specific I&d related international funding opportunities. This finding underscores the need for enhanced information dissemination and capacity-building around I&d financing at both national and international levels. Among the international financial mechanisms recognized by respondents, results suggest that the African Risk Capacity (ARC), the Green Climate Fund (GCF), and the World Bank (WB) are the international financial vehicles or instruments that the respondents are expecting to prioritize.

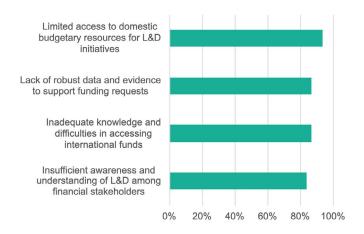
94%

of the respondents cited limited domestic budget for I&D activities as a challenge, indicating a need for direct budget support by the L&D Fund

The responses to the question regarding financial gaps or challenges in securing adequate funding for l&d activities reveal several key insights. Firstly, the survey indicates that **94% of respondents** face challenges related to limited access to domestic budgetary resources for l&d initiatives. This is a very interesting result as the concept of l&d according to the definitions under the UNFCCC negotiations refers to the responsibility of developed countries to

support developing nations in managing the costs of irreversible climate induced losses and damages. There are several reasons as to why the respondents provided such high importance to domestic budget despite the anticipated international funding. While the principle of developed countries providing financial support for I&d in developing countries is widely recognized, there may be gaps in the actual implementation of this principle. Commitments made at international conventions do not always translate into timely or sufficient financial flows from developed to developing countries. In addition, further issues of complex application processes, stringent eligibility criteria and lengthy approval times make domestic funding important in order for there to be timely action taken. These reasons are also reflected in the results where 87% of the respondents cited that the difficulty in accessing international funds is a major barrier in securing adequate funding for I&d activities. The technical report titled "Closing the Climate Financing Gap" by GGGI [2] provides additional insights into the reasons behind the discrepancy in finance and climate-actions at the project level.

Figure 6: Challenges in securing adequate funding for I&d activities



84% of respondents also brought up the issue of insufficient awareness and understanding of I&d among financial stakeholders. This highlights a crucial need for enhanced understanding of I&d to bridge the knowledge gap and garner support from financial institutions. Lastly, the lack of robust data and evidence to support funding requests for I&d initiatives, noted by 87% of respondents, emphasizes the importance of strengthening data collection and research efforts to substantiate funding needs and priorities in the realm of I&d.

2.4 Implementation

The findings presented in this implementation section should be viewed as barriers and challenges that government officials are either already facing or are anticipating in the future. This is especially relevant as - given the rising intensity and frequency of climate change impacts - more countries are gearing up to address climate-related losses and damages with greater emphasis. It is therefore important to note that many countries may still be in the early stages of planning I&d actions before transitioning into the implementation phase.

One of the foremost challenges mentioned by the majority of the respondents in the successful implementation of l&d projects and programs is the recurring issue of **financial constraints**. This impedes both the scale and scope of interventions. Another major problem that was brought up frequently is **inadequate and unreliable data**. Limitations in data availability, quality and accessibility - particularly in assessing the extent of future impacts on vulnerable regions and communities - impedes accurate risk identification, monitoring and planning.

The survey reveals that respondents are concerned that **weak institutional capacities** (**including insufficient mandates and limited technical expertise or frameworks**) can hinder the effective implementation of I&d projects and programs. Insufficient coordination among different stakeholders and sectors may lead to the duplication of efforts, inefficient resource allocation and gaps in addressing loss and damage. Some respondents noted that this issue is presently occurring in their countries and is not merely a future concern. In addition, the **absence of political support and commitment to addressing loss and damage is identified as a key obstacle**. This can hamper the development and implementation of necessary policies, regulations and strategies. Balancing short-term political priorities with long-term climate change goals is cited as a challenge in some responses.

68%

of the respondents emphasized involving local communities to design L&D policies to overcoming the disparity in awareness

Given that the implementation of loss and damage initiatives will necessitate countries to interact with communities, the survey inquired about the challenges they currently face - or anticipate - in effectively engaging vulnerable communities in I&d preparedness and response efforts. The respondents highlighted the importance of adopting culturally sensitive, community-centric approaches to successfully engage vulnerable populations in I&d initiatives. Furthermore, ensuring equity and social justice in the implementation of loss and damage interventions is crucial. Disadvantaged and marginalized communities face disproportionate impacts and may encounter additional barriers - such as limited access to resources

and decision-making processes - as one of the respondents has suggested. According to the survey, vulnerable communities may lack knowledge or understanding of loss and damage concepts. This may make it challenging for them to comprehend the need for preparedness and response efforts.

Effective communication strategies and awareness campaigns are crucial to bridge this gap. Tailoring communication materials and approaches to specific cultural contexts and using language that communities understand is essential for inclusive participation. Vulnerable communities also face resource constraints - such as limited access to technology, transportation or finance - which hinders their active participation in preparedness and response efforts. Addressing resource gaps and ensuring accessibility is crucial for effective engagement. Some communities - especially historically marginalized or disadvantaged ones - may harbor deep-rooted mistrust towards authorities or institutions. Building trust through transparent and inclusive engagement processes is essential to overcome this challenge. Respondents also mentioned that socioeconomic disparities and power dynamics within communities can influence effective engagement. This means that there should be equitable, empowering engagement efforts that consider diverse needs and perspectives as these are crucial for

2.5 Priorities of Economic and Non-Economic Losses and Damages

community involvement.

To identify the specific losses and damages that are of high priority for the countries, the survey requested the respondents to select various types of economic and non-economic losses and damages that are of high relevance to their countries. The primary goal was to uncover overlaps between different types of losses and damages - highlighting the urgent need to bridge knowledge and capacity gaps and to design suitable programs or projects accordingly. It's important to clarify that the survey results do not imply a ranking of priorities or severity among the losses and damages, as impacts can vary significantly between countries.

In both categories, livelihoods and food security emerge as the foremost concerns as they received the highest scores from respondents. This shows the urgent need to accelerate actions aimed at addressing the impacts of climate change affecting both of these areas. Upon further examination of both economic and non-economic losses and damages, countries appear to initially prioritize economic considerations. This preference may be attributed to the challenges associated with defining and evaluating non-economic losses and damages as well as gathering relevant data. Economic factors pose more conspicuous and immediate threats. They are also relatively easier to quantify in monetary terms which explains their prioritization by countries.

Figure 7: Relevance of economic losses and damages to the responding countries.

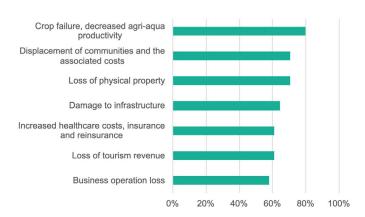
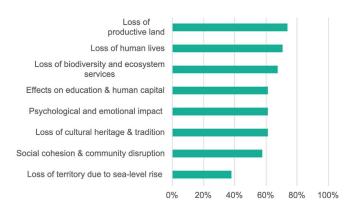
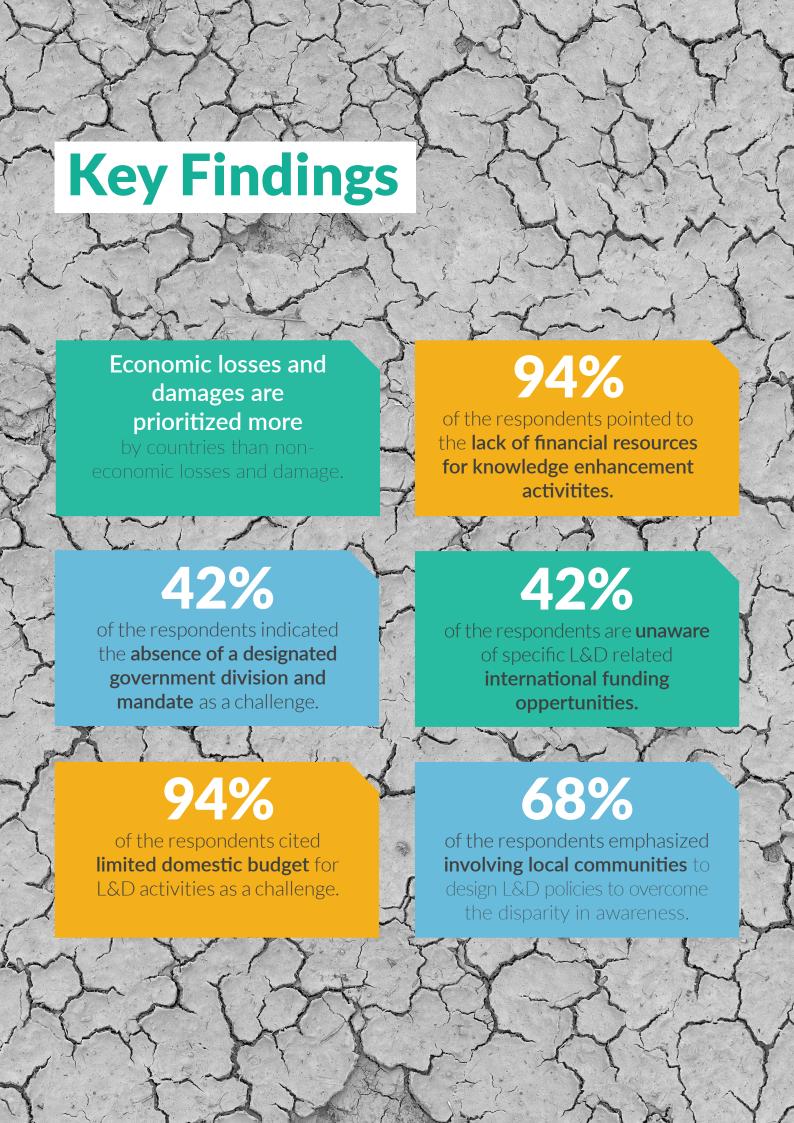


Figure 8: Relevance of non-economic losses and damages to the responding countries.









3. Priority needs to respond to Loss and **Damage**

Based on the analysis of the survey responses, four categories of key findings on the current gaps and needs to address climate-related losses and damages have emerged. These findings are in regard to respondents' existing readiness on loss and damage and their corresponding needs.

Lack of capacity and understanding of loss and damage

The survey results indicate a notable knowledge gap among the government stakeholders involved. This is understandable given the novelty of the concept of I&d and the emerging body of literature and practices in this field. However, the gap in knowledge and capacity is one of the main obstacles to promoting I&d in areas such as funding; building an effective institutional framework and policy; and ensuring effective implementation. As climate change impacts intensify, it becomes increasingly urgent to bridge these knowledge gaps and enhance understanding of I&d in order to effectively mitigate its impacts and support affected communities.

Survey results indicate that there is a general lack of understanding and knowledge of I&d and how it differs from ongoing activities focused on disaster risk reduction and climate adaptation. This poses several challenges that can hinder effective planning and implementation of I&d projects - such as misaligned strategies and interventions or weak policies and legal frameworks. These fail to adequately address the specific needs and challenges associated with I&d. Perhaps the biggest challenge is that decision-makers may overlook or underestimate the potential for irreversible losses and damages associated with climate change impacts.

Key recommendations

- Conduct a comprehensive gap and needs assessment through structured surveys and interviews with diverse stakeholders in order to identify specific areas where understanding is lacking and requires strengthening.
- Take a multi-sectoral approach to the capacity-building training and processes - targeting diverse stakeholders such as decision-makers, local communities, the private sector and the research community.
- Capacity-building projects or programs should preferably involve a comprehensive range of activities aimed at enhancing understanding and capabilities across various aspects of I&d such as data management, assessments, finance mechanisms, governance structures and policy formulation.
- Improve coordination and alignment among national stakeholders ranging from national negotiation focal points within the UNFCCC framework to national entities involved in planning and implementing I&d activities.

Strong financial need and high demand on financial cooperation

Financial constraint is another significantly mentioned limitation found across all categories of the survey. While respondents were aware of certain funding sources for I&d initiatives, the absence of an immediately accessible global fund specifically designated for I&d poses a challenge. Although the new L&D Fund was agreed at COP 28 and is to be hosted by the World Bank, it will take time before it is fully operational. Therefore, it appears crucial to provide support to vulnerable countries which facilitates easy and prompt access to future or existing funds - both domestically and internationally. One possible way of closing the gap in funding for I&d is to explore innovative financing mechanisms to bridge the gap. Several options that are increasingly being discussed include risk pooling, debtfor-nature swaps and green bonds. These can provide alternative sources of funding beyond traditional grants and loans. In addition to donor funding, there are other potential sources of funding to fill the gap in I&d financing - such as fossil fuel taxes, aviation and maritime levies [3]; financial transaction taxes [4]; or carbon pricing in the form of a carbon tax [5].

Another possibility, although it may seem ambitious at present, is to consider expanding private sector involvement through initiatives such as public-private partnerships or corporate social responsibility. The challenge in involving the private sector in the l&d discussion is that l&d initiatives often fall under the category of public goods - meaning they are intended to benefit society as a whole rather than generate direct profits. This will make it difficult to attract private sector investment as the private sector typically seeks tangible

and direct financial returns. However, there are several ways in which the private sector could contribute to addressing I&d other than financing. For example, the private sector could provide long-term technical expertise in regard to industry - quantifying risks, improving catastrophe risk modelling, collecting data and promoting risk awareness [6]. Insurance solutions should not be considered to be the only approach to deal with climate-related loss and damage - but it should be seen as one of the ways to manage climate-related financial risks and it should complement concrete measures to mitigate risk and build resilience.

Additionally, respondents underscored the significance of development finance co-ordination and bilateral and international cooperation among countries. In reality, the funding landscape for I&d is limited and requires careful navigation to avoid conflicts of interest and duplication of efforts. Improved coordination among donor nations, multilateral institutions and other stakeholders is important to consolidate resources and harmonize actions for greater effectiveness. Closing data gaps for developing I&d financing instruments for risk transfer, risk pooling and publicprivate partnerships could also be achieved through cooperation between various stakeholders. Developed donor countries should recognize the importance of supporting developing countries beyond the provision of funds to address I&d. They should increase their additional support for adaptation and resilience-building which can reduces future I&d [7]. Funding for I&d activities should be additional funding and should not come at the expense of available climate finance. Certain losses & damages are irreversible, irreplaceable or result in exceedingly high restoration costs. The role and responsibilities of developed nations should not end at providing funding - instead they should support an integrated approach to I&d and resilience-building. This will reduce future potential risks and ensure that when I&d occurs, mechanisms are in place to address it efficiently and effectively.

Key recommendations

- Mainstream I&d into domestic budget planning. Putting aside domestic budgets should not be a means to push the responsibilities of addressing I&d solely to the vulnerable countries. Instead, it should be a vehicle for potentially quicker responses and it should complement international funding or fill temporary gaps. Domestic budgets can also be used strategically to leverage additional support from international sources to enhance resilience. Most importantly, domestic budgets for I&d should only be considered if it can be planned in such a way that it does not put additional fiscal burden on the countries and the spending does not come at the expense of other development areas in the country such as education or social welfare.
- Explore innovative funding mechanisms to bridge the gap found in the operationalization of the L&D Fund - or potentially bring in additional l&d funding. Financial mechanisms should offer fair conditions and have no debt impact on vulnerable communities.

- Implement ethical guidelines and transparency to climate finance that addresses I&d and deals with the welfare of vulnerable communities and natural systems.
- Involve the private sector in the planning of activities to address climate-induced loss and damage. The private sector could provide technical expertise, innovation and risk capital.

Lack of data and approach to quantify, measure, and communicate I&d

The survey reveals that there is a huge data gap in terms of quantifying and measuring the impacts of climate change as well as communicating such occurrences. Without comprehensive data on the nature and magnitude of climate-related losses and damages, countries are unable to assess their vulnerability to these impacts accurately. This undermines efforts to prioritize and allocate resources to I&d initiatives effectively. In addition, international funding mechanisms may require countries to provide evidencebased assessments of their I&d needs in order to access financial support. This is also true in terms of monitoring and evaluation. The effectiveness of I&d interventions – and making informed decisions on upscaling efforts - becomes difficult to assess with a lack of data. For disaster risk finance (such as insurance products), data is also often required for the development of specific risk transfer mechanisms - which needs to be tailored to address the impacts. In summary, the lack of reliable data on losses and damages may hinder countries' ability to secure funding for I&d projects - thereby exacerbating their vulnerability to climate risks.

It is therefore necessary to close data gaps and increase efforts in quantifying the extent of climate-induced losses and damages. There is also an overlap between data and gaps in capacity. Efforts can be made to build the technical capacity of countries to collect, analyze and use data on I&d - which can take place in the form of training programs, workshops or knowledge-sharing initiatives. One important element that is often overlooked when it comes to data collection is the engagement of local communities. Local communities often have valuable knowledge about the impacts of climate change and associated losses and damages. Accurate quantification of loss and damage is closely tied to increasing understanding and awareness. This underpins the importance of increasing efforts to bridge data gaps by encouraging policymakers, stakeholders and the public to prioritize data collection and invest in efforts to improve data quality and availability.

Key recommendations

Governments, research institutions and international organizations should prioritize funding and support for research initiatives aimed at improving I&d data collection, analysis and dissemination. Standardized methodologies for generating economic estimates and conducting cost-benefit assessments for response strategies and individual I&d projects should be developed and disseminated.

- For vulnerable countries that have a relatively low baseline capacity in terms of research - and limited domestic funding south-south cooperation provides opportunities for countries facing similar challenges to share knowledge and build capacity. This is as they are able to access expertise, resources and best practices which will strengthen their ability to address I&d.
- Plan and implement capacity-building activities within national meteorological and statistical agencies. This will equip countries with the necessary tools and capabilities to generate reliable I&d metrics. Consider involving the insurance industry in training to tap into their technical expertise of undertaking similar work in their industry.
- Encourage collaboration between academic institutions, research organizations and policy makers. This will help to leverage expertise and ensure that evidence-based policy making and interventions can be planned and implemented.
- In terms of utilizing technology to support I&d efforts, respondents emphasized the usage of improved early warning systems; climate modeling; GIS mapping; and remote sensing and monitoring networks were essential for enhancing responses to climate impacts. Countries should consider planning and investing in these infrastructures for data collection and analysis.

Lack of policies and institutional governance to implement I&d-related activities

The final key finding from the survey results was the lack of policies and institutional governance for the effective implementation of I&d activities. Similar to the lack of knowledge and capacity, confusion and a lack of alignment among government stakeholders regarding priorities, responsibilities and coordination can occur. This leads to an inefficient use of resources and a potential duplication of efforts. In the absence of a strong policy or governance mechanism, decision-making processes may be fragmented and not well-aligned across different government agencies and stakeholders. Ultimately, the effectiveness of I&d-related interventions will be undermined indicating a need for better alignment and coordination.

One of the things that governments can undertake to address this issue is to provide clear guidance and direction for I&d activities. This can be done by prioritizing the development of robust policy frameworks. Ideally, these policies should address the gaps by defining clear objectives, priorities, responsibilities and coordination mechanisms - as mentioned by the respondents of this survey. Equally important is the alignment of relevant policies with national development strategies and goals as well as international commitments - such as the Nationally Determined Contributions (NDC); the National Adaptation Plan (NAP); or the Long-Term Low Emission Development Strategy (LT-LEDS). The institutional

mechanisms are encouraged to be socially inclusive and gender balanced.

Governments should also invest in building and strengthening institutional capacity for I&d governance. However, this will be subject to the availability of funding and budget constraints. Countries should consider for themselves whether setting up a dedicated agency or unit within a ministry is a better solution than integrating or transferring the mandate for I&d to an existing agency. Respondents did not indicate a clear preference, as this should be assessed strategically and based on the capacities and needs of the country in question. In any case, adequate human and financial resources should be provided and the conditions should be suitable to foster cooperation between stakeholders in the different sectors and different levels in the government.

Key recommendations

- Evaluate existing policy reviews and assess gaps or inconsistencies in addressing I&d. This should have a focus on integration into either existing or new climate change adaptation and disaster risk reduction strategies.
- Define clear roles and responsibilities of governing bodies and establish a specific mandate for addressing I&d.
- Develop integrated approaches that consider building resilience and I&d to reduce future climate impacts.
- Mainstream I&d into national planning processes and explore opportunities to include them in the upcoming enhancement of the National Determined Contribution (NDC). This is a timely way to enable the county to begin a discussion on the approach to address I&d at an institutional level.
- Promote an inclusive approach to decision-making in the planning and implementation process by involving civil society organizations and local vulnerable communities.

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Annex: Survey Questions

Governance

- 1. Are there any policies or national strategies already in place to address I&d? If so, what are they?
- 2. Is there a designated government division in your organization/ministry/agency to address I&d? If yes, which one?
- 3. Which (other) existing institutions do you believe the country could leverage to promote I&d initiatives?
- 4. Should adaptation and I&d strategies and policies be linked? Or should they be clearly separated?

Capacity

- 5. What are the specific skills, knowledge or resources that are currently lacking to effectively address I&d?
- □ Advanced modeling and risk assessment expertise
- □ Comprehensive climate data collection tools
- □ Cross-sectoral coordination
- □ Access to funding for loss and damage projects
- □ Public awareness and engagement strategies
- □ Legal and policy frameworks for loss and damage
- □ Scientific research and knowledge-sharing platforms
- □ Other:
- 6. How can capacity-building initiatives be better tailored to meet the needs of stakeholders involved in managing I&d?
- 7. What specific areas of cooperation can be prioritized to strengthen the country's capacity to address I&d?

Knowledge

- 8. What challenges are associated with understanding and raising awareness about I&d among different sectors of society?
- □ Varying levels of understanding among different sectors
- □ Difficulty in quantifying and communicating the impacts
- □ Competing priorities in different sectors
- □ Lack of technical personnel
- □ Other:

□ Other:

9. What obstacles do you have in planning I&d programs?
□ Lack of understanding of the impacts of climate change on the country's environment
□ Lack of assessment of the potential damage in monetary and life terms
□ Lack of calculation of actual loss and damage
□ Challenges in measuring non-economic losses and damages
□ Inadequate funding
□ Other:
10. What data and analysis are needed to design I&d activities?
□ Comprehensive climate risk assessments for vulnerable regions
□ Historical climate data and trends
□ Short-term and long-term climate projections
□ Community-level impact surveys
□ Other:
Implementation
11. What are the key experienced and anticipated barriers or obstacles during the implementation of I&d projects or programs?
12. What are regulatory or policy challenges/inconsistencies/conflicts that impede the successful execution of I&d initiatives?
13. What are challenges in effectively engaging (vulnerable) communities in I&d preparedness and response efforts?
Finance
14. Are there any sources of funding for I&d initiatives in the country?
15. How are projects/initiatives related to disaster risk management currently financed? Are there any existing resources or plans to establish such a fund?
16. Are you aware of any international funding sources for I&d? If yes, please list a few that you are aware of.
17. Are there any international funding sources from above or any other financial vehicles/instruments (e.g. parametric insurance) that the country would prioritize exploring or using for I&d initiatives?
18. What are the financial gaps or challenges in securing adequate funding for I&d activities?
□ Insufficient awareness and understanding of I&d among financial stakeholders
□ Limited access to domestic budgetary resources for I&d initiatives
□ Inadequate knowledge and difficulties in accessing international funds for addressing I&d
□ Lack of robust data and evidence to support funding requests for I&d initiatives

Adaptation

- 19. What specific areas of cooperation can be prioritized to strengthen the country's capacity to address adaptation needs across sectors?
- 20. How can capacity-building initiatives be better tailored to meet the needs of stakeholders, sectors or authorities involved in managing adaptation?
- 21. What data collection, analysis and reporting gaps impact the evaluation of adaptation outcomes and how do they reduce I&d across sectors?
- 22. What are obstacles to accessing international support for adaptation initiatives, encompassing both financial and implementation aspects?
- 23. What are your ongoing efforts to close adaptation finance gaps?

Type: Economic Losses and Damages

For the following 2 sections, you have different types of climate-induced losses and damages. The list encompasses both economic and non-economic losses and damages. Please check 'Yes' if there's any planned/ongoing program or discussion in your country and provide a brief explanation on the nature of the losses and damage.

1. Crop failure and reduced agricultural & aquaculture productivity	2. Loss of tourism revenue
□ Yes	□ Yes
□ No 3. Damage to infrastructure (including power sector assets)	□ No 4. Increased healthcare costs, insurance and reinsurance
□Yes	□ Yes
□ No 5. Business operation loss □ Yes □ No	□ No 6. Displacement of communities and the associated costs of relocation and infrastructure rebuilding □ Yes □ No
7. Loss of physical property □ Yes	8. Please list any other relevant economic loss and damage in the country
□No	

Type: Non-economic Losses and Damages

Please check 'Yes' if there's any planned/ongoing program or discussion in your country and provide a brief explanation and provide a brief explanation on the nature of the losses and damage.

1. Loss of human lives	6. Disruption of social cohesion and community relationships
□ Yes	□ Yes
□No	□ No

2. Loss of territory due to sea-level rise	7. Impacts on education and human capital development
□ Yes	□Yes
No3. Loss of cultural heritage (including communal sites) and traditional knowledge	□ No 8. Loss of biodiversity and ecosystem services (including extinction of species)
□Yes	□Yes
□ No 4. Loss of productive land for agriculture and livestock □ Yes	□ No 9. Please list any other relevant non-economic loss and damage in the country
□ No 5. Psychological and emotional impact	
□ Yes	
□No	



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