Unheard, Uncharted: **A holistic vision for addressing 'non-economic' loss and damage**

Caritas Internationalis
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Executive Summary

As climate change takes hold across the world, millions of people are exposed ever more to climate risks and impacts. Many of these risks and impacts cannot be adequately measured with economic metrics. Whilst damage to infrastructure, agricultural production or assets, for example, can be given an economic cost, losses and damages to cultures, heritage, mental health and what people value cannot (and ought not) be given an economic equivalent. So-called 'non-economic' loss and damage has been part of the global lexicon on climate change for a number of years. However, following the breakthrough agreement to establish a fund and new funding arrangements for addressing loss and damage at COP27, research is urgently required to understand how new funding can address losses and damages which inherently have wider than just economic implications.

This paper seeks to deepen understanding of 'non-economic' loss and damage globally, including how it can be assessed and how it can be addressed. The paper makes a case for why 'non-economic' loss and damage ought to be prioritised, and it proposes recommendations for policy and practice. Through reflecting on the Integral Human Development (IHD) approach and in light of new values-based approaches and locally-led participation, this paper proposes means of conceptualising and applying a robust definition of 'non-economic' loss and damage that meets the needs of communities facing climate impacts across the world.

From the evidence reviewed for this report, the following recommendations are made on how 'non-economic' losses and damages can be addressed at the upcoming COP28 and beyond:

1. At COP28, Parties should agree to fully operationalise the Loss and Damage Fund and commit to funding arrangements which meet the full scale of needs, including both economic and non-economic losses and damages. They should also acknowledge that the two are distinct but inseparable categories of climate impacts which must be addressed together for full effectiveness. Non-economic losses and damages should not be assigned to one specific funding category or window, but a cross-cutting priority.

2. At COP28, Parties should agree to fully operationalise the Santiago Network for Loss and Damage. The Santiago Network for Loss and Damage should be given a budget that is sufficient to fund capacity building programmes to developing countries to support the assessment of 'non-economic' losses and damages and to assist in the development of appropriate mechanisms to address 'non-economic' losses and damages in long-term climate action strategies, development plans, Nationally Determined Contributions and National Adaptation Plans.

3. The Global Stocktake should regard Loss and Damage as both a standalone and cross cutting issue on a par with mitigation, adaptation and means of implementation and support. This broad-based approach must also include a specific qualitative and participatory assessment of global action to address 'non-economic' losses and damages.

4. The Inter-governmental Panel on Climate Change (IPCC) should do a special assessment report on Loss & Damage which specifically analyses 'non-economic' losses and damages to build greater understanding on the importance of the issue.

5. Within the framework of the Global Goal on Adaptation, parties must integrate a comprehensive approach for inclusive and effective climate adaptation and disaster recovery. This is the only approach that will facilitate the integration of all aspects of 'non-economic' losses and damages to ensure resilient and holistic climate solutions.

6. At COP28, Parties must acknowledge the 'non-economic' losses and damages faced by climate displaced communities. Understanding and addressing these issues comprehensively will ensure that responses are more inclusive, effective, and resilient.

Front cover: Enifa Malembia, Civil Protection Committe member and participant in SCIAF's Loss and Damage programme funded by the Scottish Government, Malawi.

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Acronyms

CISONECC	Civil Society Network on Climate Change
COP	Conference of Parties
CST	Catholic Social Teaching
DRR	Disaster Risk Reduction
GST	Global Stocktake
ICCAD	International Centre for Climate Change and Development
IHD	Integral Human Development
iNGOs	international non-governmental organizations
IPCC	Intergovernmental Panel on Climate Change
MHPSS	Mental Health and Psychosocial Support
NDCs	Nationally Determined Contributions
PDNA	Post Disaster Needs Assessment
PTSD	Post-traumatic Stress Disorder
UN	United Nations
UNFCCC	United Nations Framework Convention on Climate Change
WHO	World Health Organization
ZFRA	Zurich Flood Resilience Alliance

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1. Introduction

The human and ecological impacts of climate change are already devastating and are increasing in scope and magnitude at an alarming rate. They are also complex and therefore difficult to fully comprehend. As a result of inadequate progress on climate change mitigation[i] and a failure to adequately invest in adaptation[ii] efforts[1], we are now in the era of Loss and Damage dominated by the human and ecological impacts of climate change that are spiralling out of control. While the entire planet is feeling these impacts, they are having the greatest negative consequences for those people who are already socially and economically marginalised who mostly inhabit the Global South. And this unfolding human tragedy is compounded by the recognition of the shameful reality that those suffering the most from climate change have contributed the least to causing the problem.

The extent of this injustice is often overlooked. This is because climate vulnerability – like extreme poverty – often goes unseen, and the people and things that are lost or damaged through the effects of climate change are not always apparent. This is especially the case for what climate policymakers generally refer to as 'non-economic' loss and damage[iii], which includes fatalities, trauma, loss of homes, loss of culture, identity, and similar intangibles. Since this term is in widespread usage, it will also be used in this paper while its limitations as an accurate reflection of people's experiences are highlighted in the following pages. Additionally, this paper follows the widely used nomenclature where 'Loss and Damage' with capitals refers to the political process while 'loss and damage' in lower case refers to the actual phenomena.

Over a decade ago, the United Nations Framework Convention on Climate Change (UNFCCC), which is the global treaty tasked with addressing climate change, published a technical paper on 'non-economic' losses[2]. It concluded that "in many developing countries, non-economic losses may well be more significant than economic losses. Recognizing and managing the risk of non-economic loss should therefore be a central aspect of climate change policy" (emphasis added). Since then, there has been little progress made in directly addressing 'non-economic' loss and damage. Yet, the moral case for urgently and comprehensively taking concrete steps to address the question of the full extent of the loss and damage being caused by climate change is undeniable.

In 2019 the Santiago Network on Loss and Damage was established at the 25th Conference of the Parties (COP25) to the UNFCCC. Its purpose is to connect developing countries with providers of technical assistance to support them to avert, minimize and address loss and damage. However, it is yet to be fully operationalised because its institutional arrangements, including a host organisation, and funding have yet to be decided[3].

In November 2022, at COP27, governments agreed to establish new funding arrangements and a fund for financially supporting developing countries that are particularly vulnerable to the adverse effects of climate change in responding to loss and damage as well as addressing loss and damage[4].

To come to an agreement on the specific details of the fund and the funding arrangements, a Transitional Committee was established to make recommendations for operationalisation at COP28. The Transitional Committee has met several times in 2023 and has developed a draft governing instrument and cover decision on the fund and new funding arrangements which will be negotiated at COP28.

The goals set for this fund are very ambitious and the COP27 decision to establish it was widely applauded as a breakthrough in the fight to address the issue of Loss and Damage. However, it will be a challenge to meet all the high expectations for this fund that have been raised around the globe. In order to achieve its stated purpose, it is essential that this fund be comprehensive and at a scale sufficient to meet these needs. Those suffering the most are expecting that the fund will provide financing to enable immediate responses to Loss and Damage events that will ensure the delivery of fast and effective relief to areas struck by climate-related disasters. But they also demand that this fund offer assistance to deal with slow-onset losses and damages, helping fund recovery, relocation and rehabilitation. Recognising the wide range of ways that loss and damage affects people around the world, the fund must not be limited to economic losses but must be mandated and financed to a level that can deal fully with 'non-economic' loss and damage.

[i] Actions to decrease the amount of greenhouse gas emissions released into the atmosphere and to enhance sinks (e.g. increasing the area of forests).
[ii] The adjustments needed from individuals, communities and countries in response to changes to the planet's climate system.
[iii] In the report we use the term 'non-economic' loss and damage to refer to the wide range of climate impacts that affect humankind and the natural world in ways that transcend market economics. Non-economic is a commonly used classification, but it widely acknowledged as an inadequate identifier of human and ecological climate impacts – hence the single inverted commas before and after non-economic.

At COP28, the political phase of the first Global Stocktake (GST)[5] will take place. The GST is an assessment of the collective progress made so far in tackling climate change. In order to provide a balanced assessment, the GST must differentiate based upon how the impacts of climate change are being experienced by different groups of people across the world. For example, for those protected by privilege, climate change is seen as something that is a future threat that must be averted at all costs. But for millions of underprivileged people across the world, it is a very present and tangible reality. When taking stock of humanity's progress in tackling climate change, therefore, the losses and damages that are already being endured must not be forgotten. Loss and Damage, including 'non-economic' loss and damage, must be central part of global efforts to evaluate progress, or lack thereof, in addressing climate change.

In order to better inform an accurate inventory of losses and damages, this report seeks to deepen the current understanding of 'non-economic' loss and damage. Specifically, it will delve into specific experiences assorted with 'non-economic' loss and damage and practical recommendations for policy makers. These recommendations will serve as roadmap for policymakers in 2023 enabling then to integrate a nuanced understanding of 'non-economic' loss and damage into their decision-making processes to implement the historic decision made at COP27. There has been substantial work on and analysis of economic Loss and Damage but comparatively little on 'non-economic' loss and damage, including methodologies to assess the value of 'non-economic' loss and damage to communities. This report addresses this absence in the literature and provides a framework for understanding 'non-economic' loss and damage based on the values of the communities affected by it. It is a locally-led approach, drawing on the principles of Integral Human Development (IHD), a framework widely used to structure the work of aid and development agencies around the world originating in Catholic social teaching. IHD provides a way of understanding non-economic values and meaning in society and is particularly adapted to creating a framework through which to understand 'non-economic' loss and damage based on lived communal experience.

1.1 About Caritas Internationalis

This report has been commissioned by the members of Caritas Internationalis, a confederation comprising over 160 grassroots organizations operating in nearly every country worldwide. Caritas organisations support people of all faiths and none across the world, standing in solidarity with communities marginalised by the global economic system and suffering the most from the effects of the climate crisis. As the official aid and development agency of the Catholic Church, Caritas members are rooted in communities via parishes, schools, health care centres and local development organisations. Present in over 200 countries and territories across the world, Caritas agencies witness the destruction caused by climate change on a daily basis and therefore understand that it is precisely those who are already enduring hardships that carry the greatest burden resulting from this global crisis. Caritas' response to this egregious injustice is based on the moral teaching of the church that calls for us to embark on a mission to build a world where all can survive and thrive with dignity. The protection and stewardship of our common home the earth, is a leading principle for Caritas. Member organisations around the world work directly on projects to mitigate the impact of climate change in the pursuit of justice.

1.2 Catholic Social Teaching

Caritas' work is informed by Catholic Social Teaching (CST). This body of thought arises from key commitments in Catholic theology including solidarity, subsidiarity[iv], the preferential option for the poor, the pursuit of the common good and the promotion of integral human development. Crucially, CST has also been informed by the signs of the times. It is a living and breathing body of thought which responds to the realities of the world at that point in time and seeks to interpret what our response ought to be in light of its core principles. CST therefore can be applied to contemporary challenges to help illuminate a moral and political solutions to social, economic and environmental challenges. Pope Francis' Laudato Si'' (2015) contributed to this tradition as he reflected on the ecological crisis confronting the planet just before COP21 which produced the Paris Agreement, a landmark commitment to motivate global action on climate change. In 2023, Pope Francis released the apostolic exhortation Laudate Deum to update the faithful on the urgency of climate action in advance of COP28 in Dubai.

All Caritas agencies interpret CST in a similar fashion and apply it on a daily basis in dealing with contemporary challenges. In 2022, Caritas published a paper entitled *Responding to the Signs of the Times: A Theological Reflection on Loss and Damage*[6]. This paper builds on this previous publication but has a specific focus on 'non-economic' losses and damages.

1.3 Integral Human Development

The concept of Integral Human Development (IHD) – firmly established in CST, presents a vision of social justice based upon an acknowledgement of the fundamental dignity of every human being, regardless of faith tradition. IHD is rooted in the belief that people are inherently social in nature so that promoting the common good is the only valid approach to ensure that everyone, everywhere can achieve their full potential

[iv] This principle holds that human affairs are best handled at the lowest possible level, closest to the affected persons.

and have their basic dignity respected. Moreover, the IHD philosophy asserts that measuring progress strictly with an economic yardstick inherently undervalues the things that are most important to people and communities; the true measure of development requires a holistic view of what is required to meet the most important needs of people which cannot be reduced only to purely material needs.

As Pope Benedict XVI stated in an address to the diplomatic corps at the Vatican in 2008:

"Peace is a commitment and a manner of life which demands that the legitimate aspirations of all should be satisfied, such as access to food, water and energy, to medicine and technology, or indeed the monitoring of climate change. Only in this way can we build the future of humanity; only in this way can we facilitate an integral development valid for today and tomorrow."

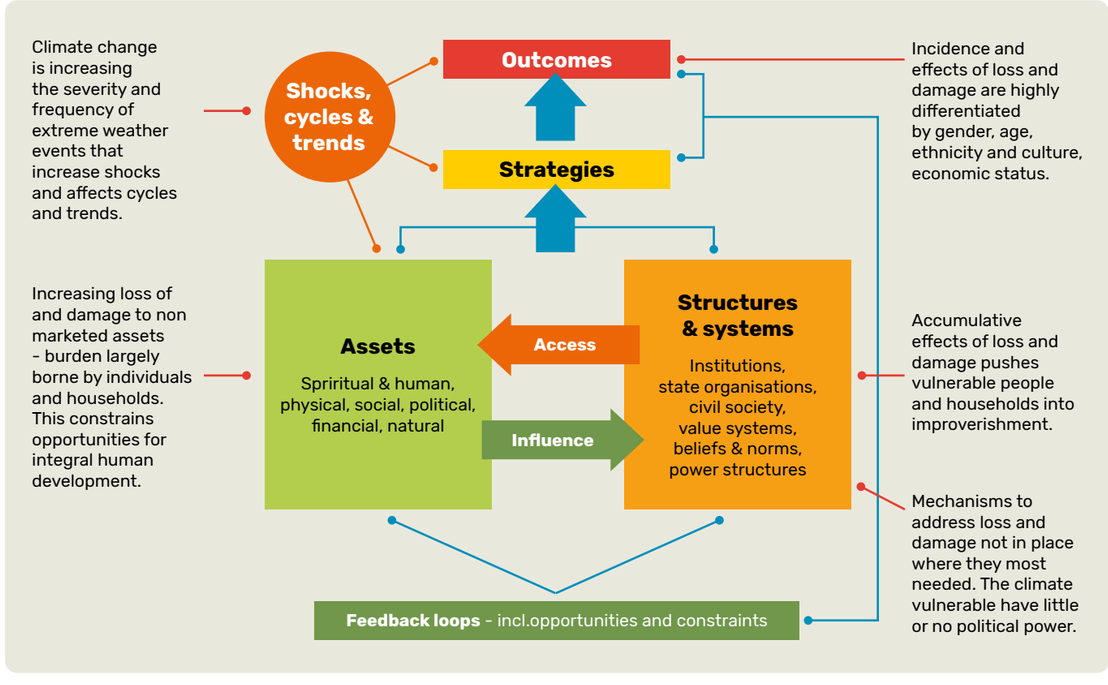
Pope Francis then built upon the work of his predecessors in 2015 with *Laudato Si''*, in which he again affirms that the ecological crisis is undermining progress towards IHD, and then argues that addressing this crisis requires IHD for people everywhere. In so doing, Pope Francis makes an important connection between caring for the planet and caring for human beings in their economic, social and spiritual contexts. He denounced an economic system that both destroys this planet by making it unliveable for future generations, while at the same time undermining the ability of people to live their lives to their full potential.

For this reason, the IHD approach offers a useful framework for considering the issue of 'non-economic' loss and damage. This philosophy articulates a vision of a better world that considers the broader needs of the whole person, household and community. It recognizes the importance of going beyond market forces as the sole yardstick for measuring the value of something. Instead, IHD emphasizes the necessity of fulfilling people's physical, financial, natural, social, psychological, spiritual and human needs[7]. As a result, it provides a particularly effective frame of reference for understanding loss and damage because all these needs are increasingly being unfulfilled due to the impacts of climate change and the resulting loss and damage.

The relevance of IHD to 'non-economic' loss and damage is further demonstrated in **Figure 1**.

This inherited spiritual wisdom therefore remains a powerful and relevant guide for us today. Using the IHD approach of "active engagement with others in a just and peaceful society that respects the sacredness of life and the dignity of every person" helps us to understand how 'non-economic' loss and damage can be more effectively addressed. This is further demonstrated in the subsequent analysis.

Figure 1. IHD conceptual framework and addressing 'non-economic' loss and damage



1.4 Structure of the Report

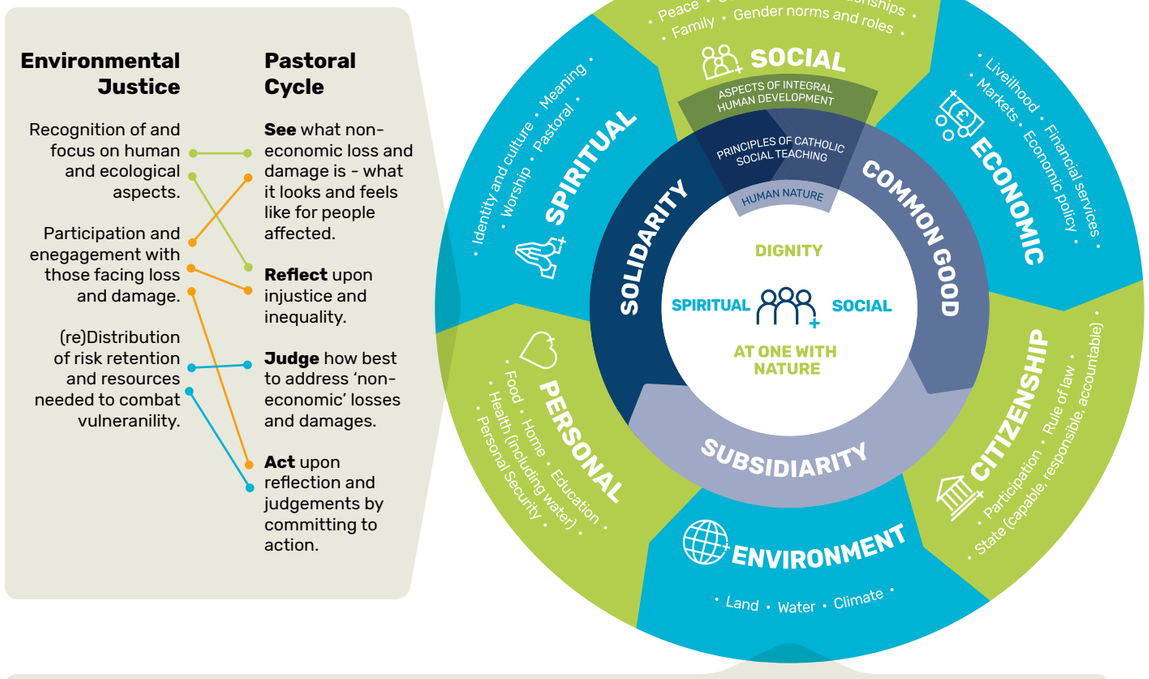
This report uses the normative model of the Catholic pastoral cycle of 'see, reflect, judge and act'[8]. The first step in this cycle is *see and reflect* which refers to how we look at and understand 'non-economic' loss and damage with respect to individuals' and communal values, interests, knowledge and culture. The *judge* phase is participative. Stakeholders are given the power through collective decision making to influence the processes and outcomes related to 'non-economic' loss and damage. The final *act* phase occurs once communities are sufficiently empowered to be masters of their own destiny and to shape the political structures which govern their lives.

This approach aligns closely with the three phases of the framework for environmental justice:[9] recognise, participate, and (re)distribute. The substantive linkages between these two conceptual frameworks and the resultant synergies are drawn out in **Figure 2** below:

We can see that the environmental justice framing requires recognition, participation and response via distribution foundational elements. Similarly, the pastoral cycle outlines a view of progress based on IHD and rooted in the needs and experiences of people and communities working towards social change.

This report is structured as follows: Section 2 focuses on seeing, reflecting and recognising 'non-economic' loss and damage, and those people affected by it; Section 3 discusses the existing methodologies being used in this field with a critique of how well they address 'non-economic' loss and damage. Based on this analysis, this section then proposes an alternative method that reflects better the realities that vulnerable people are facing when it comes to losses and damages arising from the global climate crisis. Section four of the report provides a set of recommendations for policymakers to act.

Figure 2. IHD conceptual framework and addressing 'non-economic' loss and damage



1.5 Concepts and terminology

Our current terminology and our conceptual basis for comprehensively understanding and addressing loss and damage are inadequate. They suffer from the false dichotomy of 'economic' and 'non-economic' categories. 'Non-economic losses' is a term used by the UNFCCC experts to refer to items that are not traded in markets that are lost due to climate impacts. Non-market losses would be a more precise term, but it has not been adopted in policy development processes[10] where the vulgarised term of 'non-economic 'loss and damage has been popularised.

A technical paper from 2013 commissioned by the UNFCCC identifies eight categories of 'non-economic' losses. These include life, human health, human mobility, territory, biodiversity, ecosystem services, indigenous knowledge and cultural heritage[11]. The inclusion of damage (in addition to loss) recognises that 'non-economic' aspects of life can sustain damage that is recoverable. This is important to recognize in order to accurately formulate measures addressing 'non-economic' losses and damages[12]. Box 1 below provides a definition of what is meant here by loss and damage.

Box 1.

A working definition of economic and non-economic loss and damage

There is no official UNFCCC definition for loss and damage. For the purposes of this paper and in general policy discourse, loss and damage has come to refer to impacts caused by the climate crisis that could not, or were not, avoided through controlling greenhouse gas emissions (mitigation), or minimised through climate adaptation. 'Non-economic' loss and damage, therefore, refers to losses and damages that are not commonly traded in markets or assigned monetary values.
Areas where 'non-economic' losses and damages occur include the climate-related impacts and perceived risks that affect people culturally, socially, and mentally/psychologically, and that cause the loss of, or damage to, things which people value and that cannot be replaced or repaired through market transactions.

Assessing the question of Loss and Damage in a more holistic manner in order to more effectively address it requires clear definitions. 'Losses' are considered irreversible, while 'damages' can be repaired and/or restored. The risk of losses can be insured against and managed through risk retention measures such as social safety nets[13, 14]. While sudden onset extreme climate events are most prominent in people's minds (e.g. flash floods, landslides, wildfires), slow-onset events are equally significant in terms of loss and damage (sea-level rise, droughts, a seasonality in rainfall patterns, etc.). The Inter-governmental Panel on Climate Change (IPCC) acknowledges this gap and has called for action to rectify it[15]. Slow-onset loss and damage needs longer-term and structural solutions that address the underlying causes of vulnerabilities, exposure and lack of adaptive capacity[16].

2. See and reflect

How do climate policymakers see and reflect, recognise and respond to 'non-economic' loss and damage? This section examines how 'non-economic' losses and damages have been characterised and how they particularly affect vulnerable groups. It considers how the IHD approach can provide a useful model for understanding how best to address 'non-economic' loss and damage, proposes some categories of 'non-economic' loss and damage, and draws on real-world examples to illustrate solutions.

2.1 The Marginalisation of 'non-economic' loss and damage

When climate-related disasters hit there are people who cannot adequately avoid, absorb or adapt to their impacts and therefore suffer loss and damage[17]. Climate change is increasing because economic development has been pursued without considering the impact that green-house gas emissions have on the climate system[18]. In addition, the climate vulnerability of the poor and marginalised is not being adequately reduced through adaptation measures[19, 20]. The slow pace of mitigation, the lack of effective adaptation and the neglect of targeted measures for the poorest mean that the disproportionately greater amount of loss and damage being inflicted upon the Global South will escalate with the associated growing unjust share of the devastating human and ecological consequences of the climate crisis.

The increasing intensity and frequency of climate shocks alongside slow-onset changes like sea-level rise, desertification, land degradation and increasing temperatures are causing widespread non-economic harms which are largely borne by individuals and households. Single shocks and the accumulative effects of multiple shocks constrain the efforts to promote integral human development (IHD). This is because long-term effects of loss and damage push the most vulnerable people and households into impoverishment.

Furthermore, even within climate-vulnerable societies, the burdens are not shared equally as it is always

those groups who are already marginalised that suffer the most. These communities and those marginalised people within them also share a common political marginalisation, with little or no political power to affect the systems which hinder their ability to achieve IHD. It is evident that 'non-economic' loss and damage is disproportionately affecting groups who are already marginalised internationally.

Relatedly, concerns over 'non-economic' loss and damage have been marginalised within the global climate discourse due to the dominant materialistic paradigm. This paradigm and the associated science of economics in effectively inadequate in presenting a full picture of climate impacts. This crisis of valuation is widespread and affecting the ways global society addresses both the climate change and the biodiversity crises[21]. More diverse and nuanced methods of valuation are needed to assess what losses and damages means to different people.

To illustrate this point, please see Box 2 for a realistic and raw assessment of 'non-economic' loss and damage suffered by women in Freetown Sierra Leone due to the floods and landslides in 2017.

As illustrated by the powerful testimony in Box 2, purely economic approaches to evaluating losses and damages can only inadequately capture the multifaceted challenges faced by communities vulnerable to climate change impacts. The cultural, social, and mental/psychological impacts are clear, as are the losses and damages to what the women affected value. A combination of the facts that 'non-economic' loss and damage is mostly a problem for the poor and marginalised and the dominant materialistic discourse, have led to action on 'non-economic' loss and damage being either ignored or deprioritised internationally.

The IHD approach detailed above helps to provide some understanding of a way forward. Through its appreciation of economic and non-economic values, its fundamental tenet that people are social in nature, and the key principles of solidarity, subsidiarity and the common good, the IHD model provides us with a more just and compelling vision of human fulfilment. Seen through the lens of the IHD approach to healing the wounds inflicted by climate related loss and damage, there is an overwhelming moral imperative to strive towards "working collectively to transform the way that societies live, heal and structure their relationships"[23].

Box 2.

Gendered aspects of loss and damage

[edited extract from the Sierra Leone rapid damage and loss assessment of August 14th, 2017[22].]

"A massive landslide in the Western Area Rural of Sierra Leone on August 14, 2017, slipped into the Babadorie River Valley and exacerbated existing flooding in the Western Area Rural and Urban (Freetown), affecting about 6,000 people of which 1,141 were declared dead or missing…

Women staying in the camps for displaced people had lost homes and family members, including husbands, parents, siblings, and their own children. Many women were not at home at the time of the landslide … When they returned home, they found that their loved ones and everything they owned was gone … Their coping mechanisms … were severely impacted.

In the immediate aftermath of the disaster, women who had surviving children had to prioritize securing food and shelter. They had no safe space or time to process their own grief. Some women reported that the sound of rain at night made them anxious and that they lived in fear of a similar incident reoccurring. Others were impacted by multiple traumas from the past, having previously lost other family members during the Ebola outbreak. These women would appear to have been at risk of depression and anxiety disorders as well as post traumatic stress disorder. Early intervention and appropriate psychosocial support could have helped to mitigate some of these risks. Beyond food and shelter, women with surviving children of school age required financial support to keep their children in school. Many women witnessed the mutilated bodies of their neighbours washed from their homes, and/or bore witness to their neighbours trapped and dying inside their homes. They spoke of the screaming of victims, and of their despair at being powerless to help. These women needed psycho-social support, despite not having lost property or loved ones themselves. Furthermore, the psychological impact of not having been able to offer their loved ones a proper burial and funeral must be considered. This violation of deeply held religious and cultural norms is likely to be a further source of profound pain. Many women reported that the bodies of their loved ones have not been recovered. This could create a reluctance to move away from unsafe areas going forward unless some means of recovering and identifying the bodies of lost loved ones can be found, or another way to bring about a sense of closure that satisfies religious or cultural practices. Much work will be required to understand the damages inflicted on individuals and communities. This may require creating support mechanisms and resource availability for many years."

2.2 Categories of 'non-economic' losses and damages

'Non-economic' losses and damages can be attributed to slow-onset climate impacts and sudden-onset and extreme weather events. The linkages of these events to climate change can be direct or indirect. An initial typology of 'non-economic' loss and damage[24] included human casualties, impacts on human health and on mobility, loss of territory, loss of cultural heritage and local and indigenous knowledge, loss of biodiversity and impacts on ecosystem services. As such 'non-economic' loss and damage affects individuals, households, groups, communities, enterprises, nations and the planet as a whole.

Existing categories of 'non-economic' loss and damage have been reviewed recently[25]. A list of categories is set out in **Table 1**.

Whilst helpful, the context specificity and lack of a broader evidence-based analysis means that the categories described here should not be considered to be comprehensive. For instance, recent investigative work in Bangladesh shows that 'non-economic' loss and damage is perceived differently by different people in the same location and varies significantly according to gender, age and culture. Girls in rural communities in flood prone parts of Bangladesh, for example, are having to spend large parts of their daily lives in temporary/displacement dwellings (often on raised areas of dykes) because flooding has damaged homes and sanitation and hygiene facilities. This is because the flooding has led to new problems including skin, hair and gynaecological disorders24.

Again, the IHD model helps to provide a useful framework for considering the dynamic and fluid nature of identifying and categorising 'non-economic' losses and damages. The principle of subsidiarity, calling for decisions to be made at the lowest level possible, is rooted in a moral and philosophical believe akin to social constructivism. Social constructivist approaches suggest that the social world is built by social beings, and therefore is shaped and changed by participants in it. As 'non-economic' losses and damages are often social in nature, addressing them should be a dynamic process of dialogue, intervention and review with affected people, households and communities. This core philosophy is at the heart of the values-based approach detailed below, and analysed in depth in Annex 1.

Table 1. Categories of 'non-economic' loss and damage[26]

Category	Definition
Human life	Being alive and living at least as long as the average life expectancy for a given region or population.
Physical health	The contribution of physical health to overall human well-being.
Mental and emotional well-being	A state of positive well-being contributing to mental health, life satisfaction, coping ability, and overall human well-being.
Territory	The area of land under the jurisdiction of a state, or that belongs to a particular group of people.
Culture and practises	Shared practices, narratives and customs that provide meaning and structure to people's everyday life.
Indigenous and local knowledge	Knowledge that is unique to a particular cultural group or community. It often has strong links with the environment and is valuable as it is often spiritual, cultural and practical and contributes to social cohesion and identity.
Ecosystem services and biodiversity	The variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems. There are four types of services: provisioning, supporting, regulating, and cultural. The last three services tend to be 'non-economic'.
Social fabric	Social bonds and cohesion between individuals, families, and community members.
Education	The knowledge and development resulting from the process of being educated.
Mobility	The freedom to remain or travel within one's territory.

2.3 Reflections on 'non-economic' loss and damage and IHD

In summary, this chapter has sought to illustrate some of the reasons for the relative lack of attention paid towards 'non-economic' losses and damages historically and propose some reasons it is challenging to address. This chapter has argued that 1) because 'non-economic' loss and damage is primarily affecting people living in poverty, 2) because it doesn't fit the dominant economic paradigm and 3) because it is, at least in part, socially constructed, policy makers globally struggle to understand how to deal with it.

As policy tends to respond to those with political voice, work with economic valuations and proxies, and focus on objectively verifiable outcomes, 'non-economic' losses and damages do not neatly fit in. IHD provides a helpful framework and a language to understand 'non-economic' losses and damages. In the next chapter, we will explore some of the existing methods used to assess and address 'non-economic' losses damages, and reflect on what IHD might offer more concretely to inform improved policy responses.

3. Judge

Methods used to assess 'non-economic' losses and damages

As explored in chapter 2, understanding local experiences of losses and damages is necessary for effective and fair responses to be designed. However, because of the reasons outlined above, 'non-economic' losses and damages are often not considered in disaster-related assessments and policies. This leads to a chronic underestimation of the total losses and damages that people actually experience[27].

Over the last decade, several studies have explored the evidence for 'non-economic' losses and damages in different parts of the world (see Annex 2 for an overview). In most of these studies, key informant interviews, focus group discussions and questionnaire surveys are used to gather information. Different analytical frameworks employing recognized socio-economic research methods have been used to assess and interpret the information. However, accurately categorising and quantifying 'non-economic' losses and damages – often perceived subjectively in different ways by different people across different places –remains difficult. Using conventional methods for quantifying loss and damage "risks commodifying incommensurable values, and ignoring those that cannot be costed, thereby undermining meaningful practises for recovery and renewal"[29].

Other studies have employed more creative and participatory methods to obtain and comprehend data about how people feel about losses and damages[21, 28]. A summary of these studies is provided in Annex 1. The methodology set out at the end of this section is based on these more innovative approaches.

The recent review of 'non-economic' loss and damage assessments identified four main limitations of methods most commonly used today[30]. These include:

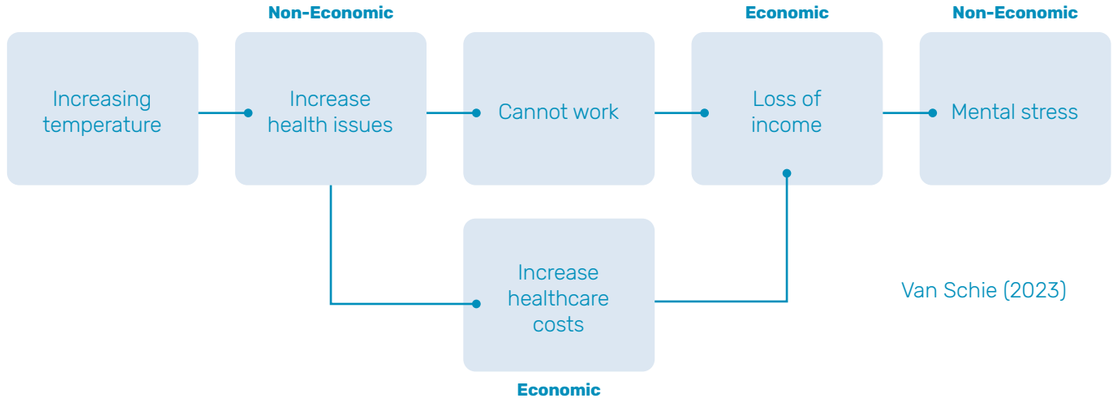
The use of pre-determined types – This narrows the assessment to areas deemed important by outsiders rather than those considered important by individuals directly affected by the loss and damage. As a result, local beliefs and worldviews are ignored. These oversights are significant and might actually result in worsening the situation by discounting the experiences of affected people. In general, it is questionable whether measures taken to repair and recover from losses derived from evidence collected based on external criteria are relevant.

Dichotomies and blunt categories – Types of loss and damage do not always fall into simple taxonomies. Entanglement and interdependency are apparent in the ways that losses and damages cascade. However, when outside experts conduct assessments economic and 'non-economic' losses and damages are seen as separate things, perhaps even as contradictions. This kind of thinking leads to single-type focus studies and shallow interpretations of much more complex reality. In reality, types of impact are deeply connected and hard to distinguish, as illustrated by the graphic in the following page by Van Schie (2023):

Interconnectivity – Climate change impacts intersect with natural, social, and economic systems. A deterministic approach to the assessment of loss and damage will therefore not render an understanding that will provide an adequate basis to design measures to address what is really happening.

Inequalities and differentiation – Climate vulnerabilities are inequitably distributed. The outcomes of climate impacts often exacerbate pre-existing social and economic inequalities. Addressing these impacts through ill-conceived compensation initiatives might only benefit existing elites which in fact may make things worse. Therefore, assessments should centre on differentiating what specific groups are really suffering negative impacts and not just in terms of gender differences. Location-specific and culturally subjective drivers of vulnerability need to be identified and factored into the response strategy.

Even local-level assessments that only use externally derived categories of 'non-economic' loss and damage risk inaccurate representation of what people see as important. Hence, responses may not be aligned with local needs.



CISONECC and partners in Malawi have been testing assessments on losses and damages that include 'non-economic' losses and damages[31]. They have found that Post Disaster Needs Assessments (PDNAs) and Stated Preference Methods (i.e. contingent valuation and choice modelling) are arguably the most workable approaches for quantifying 'non-economic' loss and damage in Malawi. Some practitioners are already familiar with these tools. Using these methods, proxies and monetary values based on community perspectives can be derived. CISONECC recommend that policymakers and practitioners should consider building the capacities of local stakeholders to deal with the problem of loss and damage, particularly in the Department of Disaster Management Affairs. It stressed the need to focus on providing the skills needed for integrating 'non-economic' loss and damage into assessments including PDNAs, and to initiate pro-actively inventory preparation and risk mapping to create baselines for the risks to non-economic assets such as cultural heritage, components of biodiversity, etc.

Recently, assessment approaches based on understanding local values have been proposed and -tested[32]. A description of this value-based approach can be found in Annex 1. In brief, this approach starts with the concept of lived values to explore what affected people value most in their daily and in the places where they live. It uses a range of qualitative and semi-quantitative data collection. This approach has been used in North central Bangladesh, where increasing floods, riverbank erosion, drought, and temperature and rainfall variability touch everything people value. The prevalence of 'non-economic' losses and damages was found to be very common and profoundly inter-connected with 'economic' loss and damage. Local people stressed the importance of social and asset protection in interviews and noted the need for measures to achieve long-term vulnerability reduction. Structural societal improvements were also noted as prerequisite for long-term relief from loss and damage, rather than simply replacing what was lost.

Adopting a locally-led approach helps outsiders to understand local peoples' experience and insights and can help shift decision-making about appropriate responses to affected societies. Pre-determined typologies of 'non-economic' loss create bias in assessments and can undermine local people's capability to recover from loss and damage. Assessments of 'non-economic' loss and damage need to be participatory by employing intersectional and gender transformative methods as Box 3 explains. It will be important to build the capacity of relevant government agencies, local organizations, as well as local leaders to facilitate this type of community led assessments.

Box 3.
Gender transformative and intersectional approaches

Gender transformative approaches seek to challenge gender inequality by transforming harmful gender norms, roles and relationships, while working towards redistributing power, resources, and services more equally.

Intersectionality is a way of understanding social relations by examining intersecting forms of discrimination. This means acknowledging that social systems are complicated and that many forms of oppression- like racism, sexism, and ageism - might be present and active at the same time in a person's life. Intersectionality is about understanding and addressing all potential roadblocks to an individual or group's well-being. For example, while the career of a young white able-bodied woman might improve with gender equality protections, an older, black disabled woman may continue to be hampered by racism, ageism, and ableism in the workplace. But it's not as simple as adding up oppressions and addressing each one individually. Racism, sexism, and ableism exist on their own but when combined they compound and produce a distinct experience of harm.

3.2 Measures to address 'non-economic' losses and damages

As illustrated thus far, there are many ongoing challenges relating to addressing 'non-economic' losses and damages, especially due to its socially constructed, dynamic and context dependent. The challenge for the new Loss and Damage Fund, therefore, is to understand how to adequately address 'non-economic' losses and damages given its variability in expression and extent across the world.

When it comes to addressing 'non-economic' losses and damages, like all losses and damages, the burden falls on those who have experienced the sudden-onset event or are dealing with the impacts of slow- onset events like drought. Vulnerable families are forced to deal with things like rebuilding their homes and taking care of health bills. Governments, civil society organizations, and donors provide a range of varied and multi-faceted measures to address loss and damage. They include engineered interventions (e.g., embankments), nature-based solutions (e.g., mangrove restoration), emergency response plans, early warning systems, climate insurance, and (anticipatory) cash transfers[33]. Layered interventions for short- and long-term shocks are currently being advocated[34]. Researchers have grouped measures to address loss and damages into the following categories:[35]

- Comprehensive risk management to reduce the likelihood of future losses and damages (this is in addition to climate mitigation and adaptation);
- Finance for risk transfer or sharing and/or pooling to support vulnerable people, enterprises and countries; and,
- Curative measures and rehabilitation from irreversible climate impacts.

Some literature suggests that external assistance to recover from 'non-economic' losses and damages due to sudden or slow-onset events could be addressed using the following measures:

- Recognising loss and repair of damage accompanied by financial payments;
- Enabling access and safe visits to abandoned sites;
- Supporting active remembrance of what has been lost;
- Counselling and official apologies.

Additionally, such remedies as restoration, rehabilitation, satisfaction, compensation, and guarantees of non-repetition can be used to address the loss and damage to cultural heritage[36].

A typology of measures to address economic and 'non-economic' losses and damages was drawn up in 2022[37]. This taxonomy consists of the following groups:

- Assessing risks and documenting impacts;
- Disaster response;
- Rebuilding infrastructure;
- Planned relocation and assisted migration;
- Transferring, sharing and pooling financial risk;
- Social protection and safety nets;
- Ecosystem conservation, restoration and management;
- Resiliency in livelihoods through rehabilitation, recovery and restitution;
- Curative, truth-seeking, apologies, remembrance, remedial action and counselling.

Addressing 'non-economic' losses and damage through conventional measures that often involve payments and transfers to affected people is difficult because there are no generally accepted methods for measuring the value of these losses and damages using a globally accepted scale and 'non-economic' losses and damages emerge during context specific human-environment interactions. They therefore differ widely across types of people and locations[38].

Table 3 identifies different types of responses to diverse categories of 'non-economic' losses and damages. It illustrates the breadth and diversity of types of 'non-economic' losses and damages and it shows existing and emerging response practices. It also illustrates the gaps in response types. The right-hand column of Table 3 provides a qualitative assessment based upon a review of secondary information by the authors of this report of the relevance and coverage of the responses currently being delivered for the different types of 'non-economic' losses and damages.

Table 3. Responses for addressing different categories of 'non-economic' loss and damage.

Categories of 'non-economic' loss and damage	Definition(source)	Responses	Qualitative assessment
Human life	Being alive and living at least as long as the average life expectancy for a given region or population.[i]	Risk education measures and impact mitigation e.g. early warning systems, shelters, pre-placed resources, nature-based solutions,	DRR is the most widespread of measures. Good evidence of effectiveness. However, incomplete coverage & severity of climate impacts increasing.
Physical health	The contribution of physical health to overall human well-being. [ii]	Public healthcare; injury clinics; medical rehabilitation etc.	Widespread measures. Depends upon public health system capacity. Supported by WHO, iNGOs etc. Good evidence of effectiveness.
Mental and emotional well-being	A state of positive well-being contributing to mental health, life satisfaction, coping ability, and overall human well-being.[iii]	Bereavement counselling; trauma treatment incl. PTSD,	Very few cases where such measures used. Lack of tested cases of climate related loss and damage. More emphasis on psychosocial support required.
Territory	The area of land under the jurisdiction of a state, or that belongs to a particular group of people.[iv]	Recognition of territorial identity and dignity,	Category has foremost important for people in island states. However, there are few cases where adequate provisions have been made.
Culture and practices	Shared practices, narratives and customs that provide meaning and structure to people.[vi]	Recognition and addressing of loss of cultural assets and damage to sacred sites,	Emerging practice in low flying islands etc. Particularly important where the burial sites of ancestors and other traditionally significant locations are threatened.
Indigenous and local knowledge	Knowledge that is unique to a particular cultural group. Spiritual, cultural and practical. Contributes to social cohesion and identity.[vii]	Restoration of local and indigenous knowledge,	Some cases of good practice are documented. But this approach is not widespread.
Ecosystem services and biodiversity	Variability among all living organisms and the ecological complexes they are part; includes diversity within species, between species and of ecosystems.[vii]	Ecosystem restoration; Nature based systems; Ecosystem based adap-tation,	Increasing awareness of importance. Use largely driven by biodiversity conservation interests. Evidence sparse of effectiveness for addressing loss and damage.
Social fabric	Social bonds and cohesion between individuals, families, and community members.[viii]	Rebuilding community structures following disasters.	Where collective action by local groups happens in response to covariate climate impacts. However, facilitated actions little tested for loss and damage.
Education	The knowledge and development resulting from the process of being educated.[ix]	Awareness raising of loss and damage; Schools' curriculum.	Cases where ways to address climate impacts are entering school & college curricula. Impact evidence lacking in terms of reducing loss and damage.
Mobility	The freedom to remain or travel within one's territory.[ix]	Planned and supported migration.	Increasing recognition of importance. Some initial projects e.g. Climate Bridge Fund, Bangladesh. Effective use needs enabling legislation & effective implementation channels.

3.3 Humanitarian Action and 'non-economic' losses and damages

Humanitarian response agencies are increasingly recognising how much of what they are doing is related to climate loss and damage. They are addressing some of the categories presented in Table 3. Their collective expertise and experience is invaluable in the design of measures to comprehensively address 'non-economic' losses and damages. As Mark Lowcock (former UN Under-Secretary-General for Humanitarian Affairs and Emergency Relief Coordinator) has said

Too often we overlook one of the most important aspects of what helps us as humans to survive. And that is our state of mind. People caught in crisis do need water, food and shelter and other material things – but they also need help to cope with the trauma as-sociated with climate disasters and to recover from calamity. They need help to restore their mental wellbeing[39]

The Mental Health and Psychosocial Support (MHPSS) provided by humanitarian agencies seeks to address trauma, and some humanitarian agencies seek to deal with more collective level mental and psychological impacts through the promotion of social cohesion measures. Disaster response agencies also provide protection from abuse, personal insecurity, gender-based violence etc. MHPSS efforts are coordinated by the Global Protection Cluster45 that has focused recently on climate change as a driver of displacement.

There is mounting recognition of the increasing need to address the protection of people displaced by climate-related disasters. The Global Protection Cluster seeks to amplify local and marginalized voices in addressing 'non-economic' losses and damages and aims to ensure equitable access to assistance and protection, to involve local people in strategic delivery decision-making.

However, the loss of cultural assets is not currently considered to be part of the humanitarian mandate, and neither are the territorial identity impacts of climate related events. A further gap involves the lack of consideration for preserving culture and local and indigenous knowledge as part of a comprehensive disaster response. There is also growing recognition of the role of ecosystems services in disaster rehabilitation, but this facet of an emerging response is at an early stage. Humanitarian agencies have little experience when it comes to assessing the long-term environmental and ecological damages created by extreme weather events related to climate change, let alone the socio-political, "non-economic" losses and damages incurred by communities.

A recent Zurich Flood Resilience Alliance (ZFRA) analysis[40] of what humanitarian agencies are seeing on the ground identifies that (1) locally-led approaches are needed to enable frontline communities to decide how loss and damage that directly affect their lives and livelihoods, are recognised and addressed; and (2) that people supported by humanitarian interventions face intersecting risks of climate vulnerability, conflict, displacement, and other shocks. Addressing loss and damage is undoubtedly part of the humanitarian response but these actions need to be integrated into larger conflict resolution measures and associated with the provision of support for displaced people. This latter observation aligns closely with the approach being taken by the Platform on Disaster Displacement[41].

Late in 2022, the Scottish Government convened an international meeting on practical ways to address loss and damage. A series of case studies of current activities were discussed and analysed which were published in a report[42]. The Scottish Government's analysis concluded that "addressing non-economic losses and damages is a gap across all types of climate impacts and current responses. Yet these impacts are ubiquitous, especially in marginalised and impoverished communities." The analysis of a wide range of case studies showed that identifying and addressing the root causes of vulnerability are crucial to minimising future loss and damage. This consideration needs to be a key part of developing compensatory measures to achieve just, fair, and effective outcomes that reduce inequalities and vulnerabilities on a long-term basis.

A similar approach based on case studies was used by the ZFRA to review current actions that are being taken to address loss and damage. Based on this empirical evidence, it concluded that financial and social protection are already falling far short of what is really needed and will be overwhelmed in the near future.

Cash transfers are widely considered to be a positive response mechanism to Loss and Damage which helps empower individuals and ensure locally-led responses. However, there is little empirical evidence that they increase climate resilience in the long-term. In practice, these transfers are often quite inadequate relative to the need and often arrive too late. These findings do not augur well for their effectiveness in dealing with sudden-onset events[43]. For slow-onset events, cash transfers can ameliorate some effects of loss and damages – but again the amount transferred and a lack of more comprehensive transformative approaches that minimise ongoing exposure to hazards mean that such safety nets seldom remove climate vulnerability[44].

We can conclude from the preceding analysis that humanitarian agencies have experience of addressing loss and damage. Some aspects of their responses are relevant to addressing 'non-economic' losses and damages. However, these agencies are not equipped or sufficiently well-resourced to address the multiple

dimensions of economic and 'non-economic' losses and damages. Their mandate is to be part of the first response to crises and to coordinate their assistance with governments and other development actors. But the need to comprehensively address 'non-economic' losses and damages requires both greater funding, expertise and coordination with organisations that address loss and damage in the longer term.

3.4 Climate induced displacement and 'non-economic' losses and damages

Non-economic losses and damages is overlooked in the context of climate induced displacement, forced migration, and other forms of human mobility caused by climate change. In fact, displacement is an indicator of loss and damage, as it is generally a measure of last resort for people. Uprooted populations are generally more vulnerable to human rights abuses[45]. Additionally, non-economic losses and damages, specifically related to territoriality, identity, cultural practices, cultural heritage, mental health and social fabric may be more substantial for populations that are displaced and yet these remain unaccounted. For example, existing loss and damage data collection systems and assessments such as post-disaster assessments do not systematically account for the occurrence of displacement[46]. Furthermore, climate induced displacement will have generational impacts which again are not acknowledged by existing methodologies. Understanding the needs and aspirations of displaced people and meaningfully including them in designing responses and durable solutions is crucial.

3.5 Measures for recovery

Measures that can support recovery and healing from climate-related losses, while sustaining people-ecology interactions have been identified to address losses[47]. Community-based loss and damage coping mechanisms, for example, have been implemented in Bangladesh where societies and institutions have been facing climate-related disasters for a long time. These coping mechanisms include replanting mangrove forests, home-schooling, and relocation[48]. Where people do not have what is needed to adapt to climate impacts, local responses to loss and damage will require external support. This is the re-distributive component in any strategy for addressing the environmental injustice of loss and damage.

Recent work in Malawi to understand and better address loss and damage shows how responses are being developed. A synthesis of case study evidence on socio-economic loss and damage in the Chikwawa and Nsanje districts of southern Malawi has been prepared by the national Civil Society Network on Climate Change (CISONECC). The synthesis of the selected studies shows that both government and NGOs have attempted to help the vulnerable communities deal with climate impacts through programmes that seek to protect natural resources and to train local people in adaptive agriculture methods. There has also been considerable work done to introduce safety net programmes for cash transfers, and to build the capacity for disaster risk management within local communities. The effectiveness of these measures has been put to the test by the recent extreme weather events in this region (e.g., the 2015-2016 droughts, tropical cyclone Idai in 2019, and Ana and Gombe in 2022). Based upon this recent experience, CISONECC recommended further action to address loss and damage more effectively. These recommendations included asking the local communities and government to allocate higher elevation lands that are not prone to natural disasters to households affected by floods; livestock pass-on programmes, social cash transfers and irrigation schemes to alleviate poverty. They also recommended that disaster responses through food provision should be adequately scaled to meet the actual needs and that they be consistent over the medium term to prevent indirect impacts associated with malnutrition and other health issues. Furthermore, they proposed that the central government should devolve financial power to districts to allow these authorities to address adverse effects of climate change.

Indeed, national level mechanisms will be necessary to effectively channel resources to people and regions grappling with the most acute instances of loss and damage. Establishing comprehensive guidelines is vital for assessing and addressing economic and 'non-economic' losses and damages, an undertaking loaded with conceptual and ethical challenges. Some countries are already including loss and damage in their Nationally Determined Contributions (NDCs). This is the case of Vanuatu, for example, that has included it in their revised and enhanced 1st Nationally Determined Contribution (2021-2030)[49]. This is an important precedent by identifying actions to address loss and damage at a country level. Nepal is another country that has National Framework on Climate Change Induced Loss and Damage[50] that was published in October 2021. The Nepali Framework sets out approaches, methodology, and tools to assess unavoidable, avoidable, and avoided risks of climate change impacts. It highlights the lack of systematic data on economic and 'non-economic' losses and damages. The Framework points out that 'non-economic' loss and damage has not been included in assessments of climate change impacts, nor in designing compensation mechanisms or insurance. This is the gap that many countries will face when it comes to addressing 'non-economic' losses and damages.

4. Act

Conclusion and Recommendations

A broad consensus now exists that losses and damages due to climate change are being incurred across the world, with relatively greater negative impact in the Global South. There is also widespread agreement that the devastating impacts of global warming will increase in years to come. Most experts also acknowledge that the detrimental effects of climate change fall into two broad categories: economic and non-economic. The establishment of a new fund and new funding arrangements at COP27 for Loss and Damage means that money will soon be made available to those most impacted by to address 'non-economic' losses and damages. However, this paper has demonstrated that successfully implementing ways to address 'non-economic' losses and damages is far from simple or straightforward prospect.

What the preceding analysis has clearly shown that any effective strategy for addressing 'non-economic' loss and damage will require a comprehensive approach that must include active participation from local, national, and global levels. Moreover, whilst there is a growing body of knowledge, further research will be essential to discern the most effective and efficient strategies to address 'non-economic' losses and damages supported by the proposed Loss and Damage Fund, new funding arrangements, and potential additional finance linked to existing development and humanitarian funding streams.

Several conclusions can be drawn from this report:

- The dichotomy between economic and non-economic losses and damages is not useful. Adequately addressing loss and damage requires recognizing that people's experiences do not lend themselves to clear distinction between the economic and non-economic dimensions. If the Loss and Damage Fund is to be based on real needs, then it must address both economic and non-economic losses and damages.

- The experiences of 'non-economic' loss and damage is context-specific and defined by people's unique circumstances, characteristics, beliefs and worldviews. Therefore, the spectrum of non-economic losses and damages is broad and varied. Assessment frameworks need to acknowledge this complexity.

- To avoid narrow economic reductionists assessments of 'non-economic' loss and damage, it is necessary to adopt a broad approach such as the one offered by IHD which recognizes the interrelationships of the political, economic, social, cultural, and environmental dimensions. Moreover, building trust with communities and empowering them to take ownership in the creation of assessments are necessary to ensure that the process itself contributes to the recovery of communities that are most directly impacted by loss and damage.

- Existing methods to address 'non-economic' losses and damages are sector specific, draw on pre-determined categories and do not reflect the experiences of communities, as well as the differences within communities and what they value. Humanitarian agencies also have some experience in addressing some aspects of 'non-economic' losses and damages. However, more comprehensive methodologies that incorporate local experience and knowledge of affected communities while aligning these local considerations with national processes are needed. Methodologies such as value-based approaches which are designed in consultation with local communities based on what they value are essential for ensuring that assessments are produced in a manner to ensure that they effectively address the full spectrum of loss and damage. It also allows communities to decide for themselves what counts and how much it counts rather than to have these imposed on them by external actors.

- A coherent coordinated approach to 'non-economic' loss and damage assessments is needed. National disaster registries currently do not reflect the full scope of 'non-economic' loss and damages. Some NDCs do not even mention loss and damage explicitly. It will therefore be necessary to ensure that national instruments (e.g. NDCs, Sendai Framework, etc.) reflect the complete picture of the impact of 'non-economic' loss and damages and draw on the expertise of development, humanitarian, civil society organizations, researchers, and impacted communities in the creation of these assessments. This will foster greater coordination, coherence and synergy. The capacity of local organizations and governments to perform these kinds of assessments will need to be expanded.

- Addressing 'non-economic' loss and damage needs to be guided by the UNFCCC principle of common but differentiated responsibilities and respective capabilities. An effective response to loss and damage needs to address the drivers of vulnerability. Currently, the burden of addressing loss and damage falls on the shoulders of the most marginalized populations who have done the least to create the climate crisis.

From the evidence reviewed for this report, the following recommendations are made on how 'non-economic' losses and damages can be addressed at the upcoming COP28 and beyond:

1. At COP28, Parties should agree to fully operationalise the Loss and Damage Fund and commit to funding arrangements which meet the full scale of needs, including both economic and non-economic losses and damages. They should also acknowledge that the two are distinct but inseparable categories of climate impacts which must be addressed together for full effectiveness. Non-economic losses and damages should not be assigned to one specific funding category or window, but a cross-cutting priority.

2. At COP28, Parties should agree to fully operationalise the Santiago Network for Loss and Damage. The Santiago Network for Loss and Damage should be given a budget that is sufficient to fund capacity building programmes to developing countries to support the assessment of 'non-economic' losses and damages and to assist in the development of appropriate mechanisms to address 'non-economic' losses and damages in long-term climate action strategies, development plans, Nationally Determined Contributions and National Adaptation Plans.

3. The Global Stocktake should regard Loss and Damage as both a standalone and cross cutting issue on a par with mitigation, adaptation and means of implementation and support. This broad-based approach must also include a specific qualitative and participatory assessment of global action to address 'non-economic' losses and damages.

4. The IPCC should do a special assessment report on Loss & Damage which specifically analyses 'non-economic' losses and damages to build greater understanding on the importance of the issue.

5. Within the framework of the Global Goal on Adaptation, parties must integrate a comprehensive approach for inclusive and effective climate adaptation and disaster recovery. This is the only approach that will facilitate the integration of all aspects of 'non-economic' losses and damages to ensure resilient and holistic climate solutions.

6. At COP28, Parties must acknowledge the 'non-economic' losses and damages faced by climate displaced communities. Understanding and addressing these issues comprehensively will ensure that responses are more inclusive, effective, and resilient.

Moses, a participant in SCIAF's Loss and Damage programme, works on rebuilding a Child-Based Care Centre in Malawi which was destroyed by successive cyclones

Afterword

Cardinal Soane Patita Paini Mafi,
Bishop of Tonga,
President of Caritas Oceania

This important report brings together two deeply connected crises facing the planet today: the breakdown of our climate, causing untold levels of suffering across the world; and the crisis of an economic culture of materialism, which knows the price of everything and the value of nothing. These two crises are not separate, but two sides of the same coin, and finding our way out of this darkness requires understanding of both.

On the one hand, we have the climate crisis. All of us know the effects of climate change are increasingly being felt across the planet. People are either experiencing climate change directly through extreme weather events or witnessing them in their living rooms as they watch the evening news. Cyclones are devastating communities, destroying homes, roads, schools, health centres and vital infrastructure. Heatwaves and droughts are scorching the land rendering it infertile and uninhabitable for flora and fauna. The consequences of these climate change catastrophes have been especially devastating for those whose livelihoods depend on the land and natural resources to feed themselves and their families. Wildfires are laying waste to our forests in an unprecedented conflagration that is destroying some of the most precious corners of God's creation. Warming seas are threatening the existence of entire species with serious human consequences for fisherfolk and the communities that depend on them. And rising sea-levels are threatening the very existence of some nations.

On the other hand, we have a culture of materialism, underpinned by economic paradigms which portray everything only in monetary terms. This dominant economic discourse presents individuals as only motivated by self-interest, turns people into objects of exchange and presumes a moral alchemy which turns selfishness and greed into virtues. Yet when we look at the suffering in the world today, especially caused by the climate crisis, one can see clearly that such moral alchemy does not work. Greed breeds poverty, selfishness breeds social decline, and the purist pursuit of profit alone hurts the planet, our brothers and sisters around the world, and future generations.

In view of the global scope of these climate catastrophes many have christened what we are experiencing as the era of "Loss and Damage". This term is used to denote and quantify the ever-increasing costs directly attributable to the negative impacts of climate change. Because of our collective failure to reduce our greenhouse gas emissions quickly enough and adapt to a warming climate, losses and damages of climate change are now being felt across the planet. The unparalleled scope of this devastation has also raised significant and difficult moral and political questions: Who is responsible? Who should pay for the costs of repairing and rebuilding in the wake of catastrophes caused by climate change? It is precisely these issues that underscore the unresolved key climate change conundrum which is that it has raised as many political and moral challenges as economic and technological.

The reality is that climate change hurts those most who have done the least to cause it. Our primary response to climate emergency is quite rightly focused on using diplomacy and the UN as the basis to foster the necessary the global cooperation to slow or even reverse climate change. The world can also look to the future with some hope given that such global cooperation has successfully dealt with major threats to our common home in the past. However, these laudable and necessary efforts at mitigation do not address the question of the unjust distribution of culpability and exposure to risks between nation states that is highlighted dramatically through this crisis. The resulting growing sense of injustice amongst the states least able to cope with climate change now threatens global order. The increasing resentment arising from the realization of the inherent unfairness in the nations experiencing the greatest negative effects of climate change while receiving insufficient financial support from those whose prosperity were purchased at the expense of the stability of the climate system. Ultimately, this injustice is something which must be corrected to ensure that everyone is given an equal opportunity to achieve integral human development.

By applying deontological notions of justice and by pushing for policy debates on the issue of Loss and Damage at the global level, the question of the costs of climate change come up time and time again. Figures in the hundreds of billions per year are attributed to climate induced losses and damages. Projections based on predictive modelling also show that the cost of climate change are only going to increase as global temperature inevitably increases. The question of "who pays?" then follows, quite rightly, and applications of fundamental, widely accepted moral principles then the conclusion is unavoidable that the burden should fall on those with the means and moral responsibility to act.

The important concept of 'non-economic' loss and damage brings together these two fundamental crises which shape the world today. This concept brings to the heart of the UN negotiations on climate change the moral quandary: how does one determine the value of what has been lost and damaged? Whilst the cost of losses and damages to buildings, infrastructure or farmland may be relatively easy to determine, it is a much more challenging task to assess the economic costs associated with the loss of lives or biodiversity, the damage to families, the loss and culture and heritage. A house may have clearly defined real estate value, but the loss of a home does not. Lives do not. Whole species do not. We cannot and must not reduce such things to an economic value. Doing so would diminish them, and in so doing diminish all of humanity.

This paper provides essential reflections on the parallels between the twin crisis, and helps draw out the relevance of 'non-economic' loss and damage discussions at global climate forums with biggest existential questions about the world we want to build.

This paper affirms that moral and ethical lenses are crucial to unlocking progress in achieving integral human development, and that the tools of moral philosophy and the application of ethical frameworks based on ancient wisdom are uniquely suited to deepen our collective understanding of this topic and the proposed solutions to it. An approach that seeks to apply principles of economic reduction towards 'non-economic' losses and damages could never capture the true value of what is being lost and damaged by climate change, and no purely utilitarian analysis of solutions could yield adequate insights into how peoples and environments could recover from these intangible and incalculable impacts.

'Non-economic' losses and damages get to the heart of our common humanity; to the heart of our reason for being; to the heart of what we are called to do as a human family. Ultimately, this issue brings to the heart of the United Nations the existential questions of what has value to us as a global community. For too long, our shared political and economic system has privileged only those things that can be quantified in monetary terms as having value. Yet across the global community we know that much of what is important cannot ever be readily quantified. To assign them a monetary value is to strip them of what makes them precious and beautiful.

An effective global response to climate change certainly demands and requires that we do all that we can to prevent all loss and damage, both economic and non-economic, by reducing our greenhouse gas emissions and adapting to climate change impacts. But it also requires that we provide assistance and comfort those people already suffering from the irrevocable and invaluable losses and damages. They need to feel the embrace of the global family in this time of extreme crisis so that they feel supported and that the rest of the globe acknowledges the obligations arising out of a collective sense of justice and morality.

'Non-economic' losses and damages get to the heart of our common humanity; to the heart of our reason for being; to the heart of what we are called to do as a human family.

Annex 1:

A methodological approach for understanding and addressing 'non-economic' losses and damages

This proposed methodology draws upon locally tested values-based approaches for assessing 'non-economic' losses and damages and the participative design of response measures. These methods come from the work of Douwe van Schie with ICCCAD colleagues. A detailed discussion of methods summarized here can be found in the paper, "Centring local values in assessing and addressing climate-related losses and damages"[51]. This publication provides examples of what the results of a local values-based assessment of 'non-economic' losses and damages can look like.

Background: Some methods used to assess 'non-economic' losses and damages

The most common methods used in the assessments of 'non-economic' losses and damages are key informant interviews, focus group discussions, and questionnaires.

Measuring the extent of 'non-economic' losses and damages is subjective and dependent on worldviews and belief systems. For example, a religious artefact or sacred place will mean more to those more attached to the religion in question. Quantifying loss "risks commodifying incommensurable values, and ignoring those that cannot be costed, thereby undermining meaningful practises for recovery and renewal"[52]. Person to person, creative, and participative methods can better portray the personal and emotional aspects of losses and damages[53]. Hearing and understanding local narratives and voices help to reveal the underlying worldviews and visions of the future that inform and shape people's sense of 'non-economic' losses.

In spite of the limitations of traditional quantitative methods, assessments of losses and damages using risk management techniques as a proxy and measuring participants' willingness to pay have been used[54]. Multi-criteria decision analysis to prioritise key non-economic losses and damages has also been used .

Methods to assess needs, vulnerabilities, and impacts related to disasters caused by climate change are available. The various methods employed for different purposes are listed in the table on the next page.

The different stages in an assessment

In the preparatory phase, objectives are set, an investigation team is assembled and trained, and the assessment locations are selected. After this, secondary information about climate and disasters, plus contextual information about social, environmental, historical, political, and economic dimensions can be collected and analysed. Following that, the assessment can begin - the steps are described in more detail below.

The results of an assessment can be used to set recommendations and/or to develop an action plan.

Data collection methods

Primary data collection tools should be participative. Seasonal calendars can be used to map livelihood activities, matrices to prioritise risks, and historical timelines to provide the context of impacts causing loss and damage. Some assessment methods gather information from the community rapidly (e.g. IFRC, 2000; NAWG, 2020. see table). Vulnerability analyses emphasise participatory methods and work with the community (Actionaid, 2004; Turnbull and Turnvill, 2012. see table). *The Handbook for Community Assessment of Loss and Damage* sets out how outsiders can serve as facilitators for community assessments. Hearing local voices is vital to place the concept of local values at the center of assessments.

Time

Timing and duration of assessments differ. The needs assessments stress immediate response while recognising longer-term reconstruction efforts. The Post-Event Review Capability method can take three to six months from planning to publication. The Loss and Damage assessment by ActionAid is said to be most effective when carried out in stages over at least a month.

Differentiation

Methods should identify different experiences of loss and damage by different types of people, especially gendered and intersectional differences. The UN Women framework emphasises gender transformative approaches throughout the process of recovery and rehabilitation.

A local values-based methodology for assessing 'non-economic' losses and damages

A local values-based understanding of 'non-economic' losses and damages should emphasize the socially, culturally and economically differentiated climate-related impacts along with other vulnerabilities. The assessment should use locally-led methods and should result in local ownership of the results and outcomes.

Assessments can include a wide range of qualitative and semi-quantitative data collection methods complemented with first-person storytelling to understand contexts, values, losses and damages, and local responses. There is strong resonance with the methods used in the IHD approach. A discussion of the ethics of such assessments can be found in the working paper by Douwe van Schie et al. (2022)[56].

Table 1. Methods to assess and respond to 'non-economic' losses and damages

Method	Type	Source
Needs Assessment	Needs	World Bank (2010) Damage, Loss, and Needs Assessment Guidance Notes: Volume 1. Design and Execution of a Damage, Loss, and Needs Assessment. https://openknowledge.worldbank.org/entities/publication/10aca6fd-b2dc-59a4-9ef1-15bfe0218502
Needs Assessment	Needs	IFRC (2000) Disaster Emergency Needs Assessment—World | ReliefWeb. IFRC. https://reliefweb.int/report/world/disaster-emergency-needs-assessment
Joint Assessment Model	Needs	NAWG. (2020). Cyclone Amphan Joint Needs Assessment. NAWG. https://www.humanitarianresponse.info/en/operations/bangladesh/document/cyclone-amphanjoint-needs-assessmentfinal-draft-31052020
Participatory Vulnerability Analysis	Vulnerability	ActionAid. (2004). Participatory Vulnerability Analysis: A Step-By-Step Guide For Field Staff. https://www.livestock-emergency.net/userfiles/file/assessment-review/ActionAid.pdf
Participatory Capacity and Vulnerability Analysis	Capacity, vulnerability	Turnbull, M., and Turvill, E. (2012). Participatory Capability and Vulnerability Analysis: A Practitioners Guide. Oxfam GB. https://policy-practice.oxfam.org/resources/participatory-capacity-and-vulnerability-analysis-a-practitioners-guide-232411/#:~:text=Oxfam's%20participatory%20capacity%20and%20vulnerability,drivers%20of%20poverty%20and%20suffering
Post-Event Review Capability	Capability	Venkateswaran, K., MacClune, K., Keating, A., and Szönyi, M. (2020). The PERC manual. Learning from disasters to build resilience: A guide to conducting a Post-Event Review. Zurich Insurance Group. https://floodresilience.net/resources/item/the-perc-manual/
Handbook for Community Assessment of Loss and Damage	Loss and damage	Anderson, T., Hossain, T., and Singh, H. (2019). Loss and damage handbook for community-led assessment of climate-induced loss and damage: A 7 step guide. https://actionaid.org/publications/2020/handbook-loss-and-damage-assessment
Value-based assessment model for loss	Loss	Tschakert, P., Barnett, J., Ellis, N., Lawrence, C., Tuana, N., New, M., Elrick-Barr, C., Pandit, R., and Pannell, D. (2017). Climate change and loss, as if people mattered: Values, places, and experiences. WIREs Climate Change, 8(5), e476. https://doi.org/10.1002/wcc.476
Post Disaster Needs Assessment (PDNA) guidelines: volume B - gender	Needs, gender	UNWOMEN. (2017). Gender PDNA guidelines volume B. UNWOMEN. https://wrd.unwomen.org/practice/listing-toolbox/post-disaster-needs-assessment-pdna-guidelines-volume-b-gender

Table 2. Steps in developing a local value-based methodology

Step	Description	Narrative
Identify the need for a local values-based assessment	Choice of assessment method to use.	Addressing 'non-economic' losses and damages requires comprehensive and contextualised assess-ments. In many circumstances a local values-based approach is the best.
Assemble the team	Convene the best team to undertake the assessment. Local people should be well represented in the team.	Different skills and experience will be required. The background and socio-cultural characteristics of the team members will be important.
Agree the locations for the assessment	Choose where the assessment should take place.	In discussion with local people and representatives of the loss and damage affected communities identify where to make the assessment.
Understand local context	Investigate in different ways the local context to develop a comprehensive understanding.	Use different triangulated tools, participants and places to develop a good understanding of the historic, ecological and socio-economic context of the locations chosen for the assessment.
Investigate local climate vulnerabilities	Characterise the differentiated climate vulnerabilities in the assessment locations.	Use participative methods that focus on the last decade with different groups of local people involved.
Exploring and determining local values	Understand 'non-economic' loss and damage as it really is.	The core of the methodology. Participative and local-ly-led processes of inquiry that require good sensitivi-ty from the team and careful preparation and implementation.
Rating local values	To understand how local people prioritise aspects of 'non-economic' losses and damages	Ratings will vary from different local people's perspectives. Rating allows prioritisation as a step towards designing ways to address impacts.
Exploring measures to address ' non-economic' losses and damages	To discover potential ways of addressing these impacts	What is the array of past, current and new ways local people can address loss and damage.
Rating measures	To understand how local people prioritise aspects of 'non-economic' losses and damages	Helpful to decide what measures are taken up to address loss and damage.

Exploring, determining and rating local values
People's lived values can be explored during semi-structured interviews. Individual interviews are better than group discussions as values have personal significance and people need to feel comfortable in discussing them.

Questions in semi-structured interviews can be related to the findings from other values-based studies[57]. People may need sensitive guidance in expressing their values. This can be complicated due to the intangibility and subjectivity of the concepts.

Interviews can be structured as follows:

- participants informed about the findings from the previous assessment steps.
- a daily time chart is developed to examine what people value most about their days.
- place-based values are explored by asking questions such as "what are things that make you stay in *[village]*" and "how does life in *[village]* compare to other places you have visited?".

The individuals selected for interviews should be made in a manner that gives adequate consideration to representation based upon vulnerability, gender, age, and cultural group. Interviews should be recorded (if the interviewees agree to it), transcribed, and coded using an inductive approach so that codes do not predicate a theory, construct, or concept[58]. For example, "I enjoy my prayer time" can be coded as prayer and "If I was given the power, I would fix the roads and transportation system" as communications system. Multiple team members from various backgrounds should conduct this process to ensure validity and cultural sensitivity. The coding process results in a set of values.

Most frameworks to assess 'non-economic' loss and damage include up to ten types. Similar values can be bundled, for example, family, children, grandchildren, and relatives grouped under family. This bundling requires close attention to the context in which every value was mentioned, and when there is doubt, values are best left as 'undecided'.

Values bundles can be presented to participants during focus group discussions. The team introduces the bundles and asks participants (i) if other groups should be added, (ii) if there are better terms to define the groups, (iii) where the undecided values fit in, (iv) if they agreed with the values and the bundles, (v) if they would merge bundles, and (vi) if they would split bundles. Substantial changes can be made at this stage. For example, *community* could become *society*, if participants argue the latter refers to the broader population instead of separate religious communities; *harmony* and *caring* could be bundled into *family* and *society*; and mental health could be separated from health.

Surveys can then be conducted with a range of local people to determine how important each value is to them. In a survey, the assessment team members describe each value and asked interviewees to rate the importance on a five-point Likert scale.

Exploring and rating losses and damages
The local values determined (as described above) should guide key informant interviews that examine the losses and damages local people experience. In these interviews, the assessment team should explain the definition of each value, ask about climate-related impacts on each value, and ask what specific climate-related hazards caused the impacts. The people interviewed are selected using a similar process as in the previous step. All interviews should be recorded, transcribed, and coded. A deductive coding method is used whereby the team categorises the data according to the bundled local values.

To rate the losses and damages, the assessment team should use interviews and/or discussion groups where the losses and damages observed within each identified value are explained. Then participants are asked to rank the climate-related impacts within related to each value on a five-point Likert scale.

Exploring and rating measures to address 'non-economic' losses and damages
The current and envisaged responses to losses and damages can be examined using key informant interviews and/or focus group discussions. The assessment team explains the observed impacts to participants and asks if people have experienced a particular impact. The team also asks if and how participants currently respond to the impacts. Then there is a discussion on other ways of addressing the impacts. All interviews should be recorded, transcribed, and coded using an inductive approach.

Another survey is then necessary to assess local people's perception of the usefulness of the current and potential measures for addressing the losses and damages. Measures that are mentioned by various local people can be included in this survey. The assessment team explains every measure and asks participants to rate their usefulness on a five-point Likert scale.

Debrief and wrap up with local people
It is important to organize a debriefing and wrap up session in each assessment research location. At these meetings, the preliminary findings of the assessments are explained and validated by local people. These discussions should include what is proposed as the next steps in addressing the impacts causing 'non-economic' losses and damages and should be fully documented.

Annex 2:
Studies of 'non-economic' losses and damage

Table 3. Studies of 'non-economic' losses and damages.

Location	Focus	Source
Bangladesh	Assessing	Andrei, S, Rabbani, G and Khan, HI. 2014[59]
Japan	Assessing, addressing	Chiba and Prabhakar, 2017[60]
Bangladesh, Ethiopia, El Salvador, Tanzania	Assessing	Hirsch et al., 2017[61]
Bangladesh, Japan	Assessing, addressing	Chiba et al., 2017[62]
India	Economic valuation	Bahinipati, 2020[63]
India	Risk management	Bahinipati, 2022[64]
Pacific Islands	Assessing, addressing	McNamara, Westoby, and Chandra, 2021[65]
Pacific Islands	Cascading loss	Westoby et al., 2022[66]
Bangladesh, Fiji, Vanuatu	Mental well-being, women	Ayeb-Karlsson et al., 2021[67]
Bangladesh	Assessing	BIslam et al., 2022[68]
Dominica, Barbuda	Reframing, policy	Pill, 2022[69]
Bangladesh	Assessing, local response, gender	Van Schie et al., 2022[70]
Ghana	Assessing, farmers	Boafo et al., 2023[71]

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