



[Miguel Rasolofo for CRS]

Addressing Loss and Damage from Climate Change

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ACRONYMS

AOSIS	Alliance of Small Island States	
СОР	Conference of Parties	
CRS	Catholic Relief Services	
GD	Glasgow Dialogue	
GDP	Gross Domestic Product	
GCF	Green Climate Fund	
IIED	International Institute for Environment and Development	
IPCC	Intergovernmental Panel on Climate Change	
LDCs	Least Developed Countries	
LLDCs	Landlocked Developing Countries	
L&D	Loss and Damage	
NELs	Non-Economic Losses	
SIDS	Small Island Developing States	
UN	United Nations	
UNFCCC	United Nations Framework Convention on Climate Change	
WIM	Warsaw International Mechanism	

Forward

This research paper was completed in October 2022, preceding the opening of COP27 in Sharm-El-Sheikh, Egypt. This forward offers changes to the paper's recommendations, updated in light of the breakthrough agreement on a new "Loss and Damage" funding mechanism for vulnerable countries.

Parties at COP27 agreed on "new funding arrangements" and a fund for responding to loss and damage.¹ They also decided to form a 'transitional committee' to provide recommendations on how the new funding arrangements and the fund should be operationalized for COP28. The transitional committee's first meeting is expected before the end of March 2023. Parties also agreed on the institutional arrangements to operationalize the Santiago Network for Loss and Damage, to catalyze technical assistance to developing countries that are particularly vulnerable to the adverse effects of climate change.

As a development and humanitarian organization that works with communities impacted by climate change, CRS applauds the creation of the Loss and Damage fund announced at COP27. There will be many questions to answer regarding who will contribute to the fund and who will be eligible for funding. We will continue to work with civil society organizations and the US government to advance the conversation about the details of the funding arrangements. It is imperative that funds are available to those whose lives and livelihoods are being devastated by climate disasters.

We will continue to advocate for the following principles in the funding arrangements that will be discussed moving forward:

- 1. Just: Facilitate dialogue and encounters based on Pope Francis' third encyclical, Fratelli Tutti, to achieve a more just and healthier world.
- 2. Fair: Base funding on needs and vulnerability, in keeping with a preferential option for the poor.
- Comprehensive: Address both economic and non-economic loss and damage, recognizing the fullness of human life and values which transcend economic transactions.
- 4. *Accessible*: Ensure that support and compensation for climate loss and damage is directly accessible, and directly paid, to those who suffer the harms.
- 5. *Subsidiarity*: Decisions should be made and funding delivered to the lowest level possible, with higher levels of authority intervening only if the lower levels are unable to accomplish a task as well or as efficiently.

Specific policy recommendations to highlight are:

- 1. For the US, encourage policy makers to recognize and align policy towards addressing loss and damage—a goal that is wholly missing in US policy and programs.
- 2. Advocate for debt cancellation. After extreme climatic events, debt cancellation should be granted to ensure that countries are not forced to make loan repayments, but can instead use their money to support residents after extreme climatic events. There is a tight nexus between climate impacts and other macroeconomic issues, especially sovereign debt. Many climate-vulnerable countries are also at greater risk of debt crisis. They are just one hurricane away from default. Sovereign debt is drawing resources away from climate adaptation and is hampering the ability to address the losses and damages of climate change.
- 3. Finally, there is relatively low awareness of the issue of loss and damage caused by climate change among US policy makers. Outreach and education are needed to raise awareness and to enable these leaders to begin considering policy ideas to address the issue.

To combat global warming and loss and damage, the world needs more cooperation and investments. Climate-related weather events devastate the lives of the most vulnerable people by causing heavy human, social, emotional, and financial costs. Additionally, they can weaken governments and institutions, as well as lead to conflict. The need to build climate resilience is greater than ever.

Executive Summary

1. Why Catholics care about loss and damage

The issue of loss and damage (L&D) is inherently related to climate justice and the impact on poor and vulnerable people, and therefore a fundamental concern for Catholics. The fact that the United Nations (UN) negotiations have not yet "addressed" loss and damage reflects the neglect of the lived experience of people suffering impacts of climate change. The climate treaty is helping to drive new solar power development and the retrofitting of homes. It is helping generate funds for sea walls and early warning systems. But there is no financial assistance in that document for you if you are now homeless due to a flood or left destitute because a cyclone destroyed your crops—even though these losses are directly related to climate change.

A focus on loss and damage aligns with a value-based approach to transformation that seeks to promote human dignity. It recognizes that people are already suffering and embraces the principles of the common good and solidarity, including intergenerational solidarity. According to the Catholic encyclical *Laudato Si'*, "The world we have received also belongs to those who will follow us." As a faith community, we see phenomena like cyclones through the eyes of the poor. We draw inspiration from the traditions of our faith that demand that caring for the poor and needy be our highest priority. The dictates of our church lead us to advocate for *the preferential option for the poor*, a key principle of Catholic Social Teaching, which calls upon us to see reality through the perspective of the poor and act in their interest.

2. About loss and damage

Broadly speaking, loss and damage is harm caused by climate change. There is an incredibly wide range of such harms to consider. Climate change will cause both economic and non-economic harms to communities and countries. Some of the harms fall into the category of quick and devastating, such as those caused by extreme weather events like hurricanes, heat events, and floods. Some of the harms will be "slow-onset," driven by longer term climatic processes such as sea-level rise, increasing temperatures, ocean acidification, glacial retreat and related impacts like increasing salinization, land and forest degradation, loss of biodiversity, and desertification.

In climate policy discourse, loss and damage refers to the negative impacts of climate change which cannot be avoided by mitigation, adaptation, or through disaster risk management. Under the United Nations Framework Convention on Climate Change (UNFCCC), comparatively wealthy countries that also contribute the most to climate change by virtue of higher greenhouse gas emissions are "Annex 1" countries. The debate around loss and damage focuses on non-Annex 1 countries that are comparatively poorer and more vulnerable to climate change impacts. Non-Annex 1 countries may not be able to offset the harms of loss and damage with their own resources and will likely need assistance to adapt. In general, lower-income countries are more vulnerable to climate change impacts and have fewer resources to absorb shocks and less capacity to adapt.

Types of loss and damage are classified into two groups. Economic losses refer to the loss of goods, resources, and services that are commonly traded in markets and for which an economic value can be readily calculated. Non-economic losses (NELs) refer to a loss of life, health, cultural knowledge, biodiversity, and loss of culture and identity, which cannot easily be quantified in monetary terms.

While the concept of loss and damage is not new—having been introduced to the UNFCCC in 1991—very little substantive action has been taken to address this issue. In 2013, the Warsaw International Mechanism on Loss and Damage (WIM) was created to address loss and damage associated with impacts of climate change, including extreme events and slow-onset events, in developing countries that are particularly vulnerable to the adverse effects of climate change. The 2015 Paris Agreement recognized that "loss and damage associated with the adverse effects of climate change, includes, and in some cases involves more than that which can be reduced by adaptation" and asserted the importance of averting, minimizing, and addressing loss and damage. At the twenty-fifth Conference of Parties (COP25) in Madrid in 2019, UNFCCC established the Santiago Network for Loss and Damage (Santiago Network), which was mandated with the task of providing technical support to developing countries to address loss and damage. At the COP26 in 2021 in Glasgow, the G77 and China group (G77+ China) put forth a proposal to establish the Glasgow Loss and Damage Facility. Countries like the UK and the United States blocked this proposal. Instead, the Parties agreed to establish a two-year Glasgow Dialogue (GD) to discuss possible arrangements for loss and damage funding, with the first discussion held in June 2022.

3. Estimates for L&D

L&D costs are difficult to calculate for a number of reasons. First, there are many factors that are either unknown or volatile such as GDP, population growth, the impact of mitigation policy agreements and the effectiveness of mitigation and adaptation measures. Second, non-economic impacts such as loss of life or social cohesion are difficult to estimate, and the cost of loss in one place may not be the same as in another. Third, the lack of an agreed-upon definition of L&D makes it difficult to identify and quantify the harm. Nevertheless, many estimates have been made, often with narrow or limited definitions of economic or other harm. A recent forecast for developing countries estimates that the economic value of "residual damages" that go beyond adaptation will increase from \$116-\$435 billion in 2020 to \$290-\$580 billion in 2030, and could reach between \$1-\$1.8 trillion by 2050.

At the moment, there is essentially no funding provided to address climate-change related loss and damage. There is only the usual humanitarian response, which is provided under a different rationale. This is why G77 countries, together with China, have presented a demand for a new finance facility to address loss and damage. Several insurance and resilience-building initiatives have been launched. Still, the scale of these insurance initiatives is quite small compared to the scale of current and projected loss and damage.

To date, Catholic Relief Services (CRS) has not directly addressed the issue of loss and damage from climate change. But it may now be time to do so. A combination of factors brings loss and damage to the doorstep of CRS: the alarming scale and frequency of climate impacts; the growing concern about loss and damage in civil society and among vulnerable countries; and the imminent debate at COP27 in November 2022.

More importantly, the call to address loss and damage speaks to the values and mission of a Catholic organization. Beyond preventing the worst of the climate crisis and protecting the most vulnerable, providing special measures to help those who suffer most—a preferential option for the poor—is a compelling role for CRS. Loss and damage offers a way of viewing the problem of climate change through the lens of those most affected—a different perspective than monitoring progress on reducing greenhouse gas emissions, for example. This would serve to increase focus, attention, and thus ambition on actions to accelerate adaptation. More importantly, it would stimulate action to address loss and damage.

4. Recommendations

Based on the analysis of the issue presented in this paper, the report puts forth the following recommendations:

- 1. **Support the establishment of a Loss and Damage Finance Facility:** At COP26, the G77+ China (a negotiating group representing all developing countries) proposed the creation of a Finance Facility for Loss and Damage. This proposal was rejected towards the end of COP26 but remains a priority for developing countries at the UNFCCC, and the issue of finance for Loss and Damage is on the provisional agenda for COP27. The creation of a Finance Facility for Loss and Damage is therefore a priority for COP27 in November in Sharm el-Sheik.
- 2. Advocate for principles of funding for loss and damage:
 - 2.1 *Just*: Facilitate dialogue and encounters based on Pope Francis' third encyclical, *Fratelli Tutti*, to achieve a more just and healthier world.
 - 2.2 Fair: Base funding on needs and vulnerability, in keeping with a preferential option for the poor.
 - 2.3 Comprehensive: Address both economic and non-economic loss and damage, recognizing the fullness of human life and values which transcend economic transactions.
 - 2.4 Accessible: Ensure that support and compensation for climate loss and damage is directly accessible, and directly paid, to those who suffer the harms.
 - 2.5 Subsidiarity: Decisions should be made and funding delivered to the lowest level possible, with higher levels of authority intervening only if the lower levels are unable to accomplish a task as well or as efficiently.
- 3. Support the **creation of a standing agenda item on loss and damage for the UNFCCC**, recognizing the importance of this issue, alongside other elements of the climate crisis and agenda for action.

- 4. Support for rapid operationalization and robust funding of the Santiago Network.
- 5. Encourage policy makers in the United States to recognize and align policy towards addressing loss and damage—a goal that is wholly missing in current US policy and programs.
- 6. Advocate for debt cancellation. After extreme climatic events, debt cancellation should be granted to ensure that countries are not forced to make loan repayments, but can instead use their money to recover from extreme climatic events. There is a tight nexus between climate impacts and other macroeconomic issues, especially sovereign debt. Many climate-vulnerable countries are also at greater risk of debt crisis. They are just one hurricane away from default. Sovereign debt is drawing resources away from climate adaptation and is hampering the ability to address the losses and damage of climate change.
- 7. There is relatively low awareness of the issue of climate change loss and damage among US policy makers. Outreach and education are needed to raise awareness so policy makers can begin to consider ideas to address the issue.

1. Why Catholics care about loss and damage

A true ecological approach always becomes a social approach; it must integrate questions of justice in debates on the environment, so as to hear both the cry of the Earth and the cry of the poor. - Laudato Si', 49

The issue of loss and damage is inherently related to the impact on poor and vulnerable people and is therefore a fundamental concern for Catholics. The "avert, minimize, address" framework for loss and damage is a way of achieving true empathy with impacted communities. The perspective on climate change in the Global North often focuses on mitigation, to prevent future climate change. Yet, communities around the world must deal with the impacts of climate change today, with very thin safety nets to help them to do it. The fact that the UN negotiations have not yet "addressed" loss and damage reflects the neglect of the lived experience of people suffering impacts of climate change. The climate treaty is helping to drive new solar power development and retrofit homes. It is helping generate funds for sea walls and early warning systems. But there is no help prescribed in that document for those that are homeless due to a flood or left destitute because a cyclone destroyed their crops.

A focus on loss and damage aligns with a value-based approach to transformation that seeks to promote human dignity. It recognizes that people are already suffering and embraces the principles of the common good and solidarity, including intergenerational solidarity. "The world we have received also belongs to those who will follow us." 3

As a faith community, we see the impacts of phenomena such as cyclones through the eyes of the poor. We draw inspiration from our faith traditions that place the interests of the poor first before anything else. This leads us to *the preferential option for the poor*, a key principle of Catholic Social Teaching, which invites us to see reality through the perspective of the poor and act in their interest. The opening statement of "The Church in the Modern World - Gaudium et Spes", from the Second Vatican Council, reads:

The joys and the hopes, the griefs and the anxieties of the men of this age, especially those who are poor or in any way afflicted, these are the joys and hopes, griefs and anxieties of the followers of Christ.⁴

The aforementioned council aligned its teaching to that of our Lord Jesus Christ when he states in Luke 4:18 that his project is about:

"Bringing good news to the poor, liberty to captives, sight to the blind, letting the oppressed go free and announcing the year of favor of the Lord."

This teaching draws from, is founded in, and is consistent with the prophetic tradition which reminds the people of God to take the interest of the poor, widows, and strangers seriously (Amos 5, Micah 8). Furthermore, putting the interest of the poor first and taking them seriously is ultimately in line with the Lord's stated aim in John 10:10 that all people live their fullest lives.

As an organization founded to serve survivors of World War II, CRS has always responded to the needs of people who have been pushed into poverty and marginalization by the injustices resulting from war, extreme weather events, and systemic inequality. In the past, international climate policy-making has focused exclusively on mitigation and adaptation but has not adequately considered the needs of the poor in relation to climate change. Loss and damage is a priority issue for the poor because it is those who have the least economic resources to deal with climate change who will suffer the greatest harm. Addressing loss and damage can therefore be interpreted as the preferential option for the poor.

2. Background and purpose

Changes in the climate are rapid, widespread, and intensifying. The fact that human activities are driving these changes is now unequivocally proven. Increasing ambition on mitigation and scaling up support for adaptation are essential, but they will not be enough to entirely avoid the impacts of climate change which are already manifesting themselves worldwide. The impacts of climate change are already being felt by many vulnerable communities across the globe, often with tragic results. The injustice of this tragedy is that the greatest damages from climate change are being borne by countries and people who have contributed the least to the problem of climate change in terms of atmospheric emissions.

As the official international humanitarian and development agency of the Catholic community in the United States, CRS saves, protects and transforms lives in more than 100 countries without regard to race, religion or nationality. Our mission is to help those communities least able to help themselves to adapt to the effects of a changing climate and strengthen their resilience. The purpose of this paper is to provide an overview of the topic of loss and damage in the context of climate negotiations and policy discussions. The paper considers the issue from a Catholic perspective. After reviewing the definitions and history of climate-change loss and damage, it provides a short overview of the politics and policy debate on the issue. Lastly, the paper offers some near-term recommendations for CRS to consider as it defines how it will engage on this important topic to advance equity for the communities it serves.

3. What is loss and damage?

Broadly speaking, loss and damage is harm caused by climate change. There is an incredibly wide range of such harms to consider. Climate change will cause both economic and non-economic harms in communities and countries. Some of the harms will be quick and devastating, such as extreme weather events like hurricanes, heat events, and floods. Some of the harms will be "slow-onset," reflecting longer term climatic processes such as sea-level rise, increasing temperatures, ocean acidification, glacial retreat and related impacts, salinization, land and forest degradation, loss of biodiversity, and desertification.⁵

In climate policy discourse, loss and damage refers to the negative impacts of climate change which cannot be avoided by mitigation, adaptation, or through disaster risk management. Under the UNFCCC, comparatively wealthy countries that also contribute the most to climate change through higher emissions are "Annex 1" countries. The debate around loss and damage focuses on the situation of non-Annex 1 countries that are comparatively poorer and therefore more vulnerable to climate change impacts. Non-Annex 1 countries may not be able to deal with harms of loss and damage with their own resources and will likely need assistance to adapt. In general, lower-income countries are more vulnerable to climate change impacts and have fewer resources to absorb shocks and less capacity to adapt. There are both "hard" and "soft" limits to adaptation. Hard limits are geographic, geophysical, and biophysical. Soft limits are lack of funding, governance capacity, and expertise. Together, these constraints mean that many of the poorest countries are likely to suffer the worst from the effects of loss and damage.

Types of loss and damage are classified into economic losses or non-economic losses (NELs). Economic losses refer to the loss of goods, resources, and services that are commonly traded in markets and for which an economic value can be calculated. Non-economic losses refer to a loss of life, health, cultural knowledge, biodiversity, or loss of culture and identity, which cannot be quantified in monetary terms.⁸

Non-economic losses

Any loss is a matter of value and perspective. Different communities and different groups within communities will value different items in different ways. Whose losses will count? Whose voices will matter? UNFCCC provides a non-exhaustive list of NELs grouped into three major categories: individuals, society, and environment. In a technical paper, UNFCCC and WIM have provided examples of NELs, but there is criticism that the technical paper aims to economize NELs by labeling them as social, cultural, and environmental *capital* to enable a derivation of a monetary item. Many NELs are incommensurable, meaning that there is no common unit through which their value can be expressed. Such a condition makes monetary assessment challenging, if not conceptually meaningless. The challenge will therefore be to assess and report NELs in a way that is sensitive to context and different value-systems, and that recognizes the gender dimensions to NELs, but that still speaks to decision-makers who usually rely on a quantified and/or monetized criteria. The task of measuring an NEL is thus complicated by the dual challenge of (1) defining indicators for items and (2) assessing their value within a specific context. As part of the wider context of the issue of loss and damage, the attribution of NELs to anthropogenic climate change presents an additional research challenge.

Overall, there has been quite a bit of criticism voiced about the way the UNFCCC has made the distinction between economic losses and non-economic losses. Some researchers have argued that compartmentalization into two categories is in fact inaccurate because non-economic impacts are a direct result of an economic loss. Melanie Pill, for example, has suggested that it is better to reframe non-economic loss as "non-economic impact", since a loss does not encapsulate the full breadth of what people experience when they are impacted by an extreme event. For example, after an extreme weather event, farmers will have lost their crops; this is an "economic loss". Because of this economic loss, they will experience distress. Therefore, an economic loss has led to a non-economic impact. Pill has also proposed that UNFCCC consider a third category which she calls "life function". For example, economic goods such as fish traps give people their economic livelihood, but it may also define who they are. So an economic good is providing a life function. Depriving a person of their life function results in non-economic impacts (e.g.

psychological distress). Similarly, destroyed businesses (economic loss) reduce the confidence in re-opening (non-economic impact); lost income (economic loss) increases financial pressure (non-economic impact); and lost education or job opportunities (economic loss) reduce self-esteem (non-economic impact).¹¹

Image 1: Forms of loss and damage

CLIMATE HAZARDS	TYPES OF LOSS	AND DAMAGE	
Extreme weather events	Potential ecological impacts	Potential non- economic impacts	Potential economic impacts
Floods	Loss of biodiversity	Loss of life	Loss of building and
Heatwaves	Species extinction	Infectious disease	housing stock
Storms	Ecosystem degradation	Malnutrition	Loss of assets
	Ecosystem migration Ecosystem collapse	Negative toll on mental and physical health	Loss of productive land
Cyclones			Loss of income
Hurricanes	Loss of ice caps/ ice shelfs Glacier loss Avalanches Landslides	Access to services such as education and healthcare Loss of territory Loss of homeland Regions become	Loss of savings
Storm surges			Increased poverty
Droughts			Loss of infrastructure
Wildfires			Loss of essential services
			Loss of crops and livestock
Slow-onset events	Habitat loss	uninhabitable	Loss of access to markets
Sea-level rise	Coral bleaching	Displacement/migration	Damage to value chains
Rising temperatures	Loss of forests	Loss of Indigenous knowledge	Reduced agricultural productivity
Changes in precipitation	LOSS OF SUFFACE WATER	Loss of cultural heritage	Crops lost or damaged
Ocean acidification		Loss of societal/ cultural identity	Livestock lost
Glacier retreat			Reduced livestock health
Salinisation		Loss of livelihoods	Fisheries lost or damaged
Land degradation		Loss of long-term life chances Loss of hope for future Gender-based violence	Food insecurity
			Water insecurity
Permafrost melt			Regions become uninhabitable
Desertification		Child exploitation	Loss of ecosystem services
		Modern slavery	Loss of social safety nets
		Erosion of social	Increased social welfare costs
		cohesion	Increased debt (national, household)
		Inter-communal conflict	Reduced gross national income
		Organised crime	and gross domestic product
		Terrorism	Loss of trade
		Violent extremism	Loss of stock market value

Source: Simon Addison, Ritu Bharadwaj, Anna Carthy, et al., IIED, 2022

4. History of loss and damage in climate negotiations

In 1991, in the run up to drafting what would become the UNFCCC, the Alliance of Small Island States (AOSIS) put forth a proposal to develop a fund-and-insurance mechanism against loss and damage from climate-related impacts of sea-level rise. The proposal was rejected and the UNFCCC was adopted in 1992 with no mention of loss and damage. It did mark the beginning of international discourse on L&D; however, progress has been slow and has faced strong resistance.

Key points of disagreement are whether the UNFCCC is the right vehicle to address L&D; whether L&D should be part of adaptation policymaking; and liability and compensation. It was not until 2009 at the COP15 in Copenhagen that L&D appeared in the negotiating text. There, it was described as:

[social, economic and environmental] loss and damage associated with climate change impacts in developing countries that are particularly vulnerable to the adverse effects of climate change [and/or to the impact of the implementation of response measures], including impacts related to extreme

weather events and slow-onset events (In footnote: Including sea level rise, increasing temperatures, ocean acidification, glacial retreat and related impacts, salinization, land and forest degradation, loss of biodiversity and desertification).

In 2012, the UNFCCC prepared a literature review on approaches to address the risk of loss and damage, which acknowledged that L&D will arise from a spectrum of climate impacts ranging from extreme weather events to slow-onset climatic processes. ¹³ It proposes that there are two aspects to addressing loss and damage: reducing the risk of loss and damage occurring in the future through mitigation, adaptation and risk management, and addressing loss and damage when it occurs. The literature review described four types of approaches to address loss and damage: risk reduction, risk retention (such as contingency planning and social protection), risk transfer (including climate risk insurance) and approaches to address loss and damage from slow-onset climatic processes.

These four typologies have been used as a framework for addressing loss and damage since 2012 with a particular focus on risk reduction and risk transfer.

In 2013, the issue received greater attention in the UN climate negotiations when parties formed the Warsaw International Mechanism on Loss and Damage (WIM) to address L&D associated with impacts of climate change—including extreme events and slow-onset events—in developing countries that are particularly vulnerable to the adverse effects of climate change.

The 2015 Paris Agreement reaffirmed WIM as the main vehicle under the UNFCCC to address loss and damage associated with climate change impacts. The decision which established WIM acknowledges that, "loss and damage associated with the adverse effects of climate change, includes, and in some cases involves more than, that which can be reduced by adaptation" In the Paris Agreement, developed countries also managed to secure language stating that loss and damage "does not involve or provide a basis for any liability or compensation". This is a position that the United States and other developed countries continue to hold.

Under the Paris Agreement, countries recognized the importance of averting, minimizing, and addressing loss and damage. This formulation— "avert, minimize, and address"—has provided the direction for creating the pillars of climate action. "Avert" signifies mitigation or prevention of climate change through reduced emissions and other measures. "Minimize" refers to adaptation and also includes elements of risk reduction, risk transfer, and risk management. "Address" is the final pillar but is still under construction—or perhaps has been forgotten.

In 2016, the Executive Committee which guides the WIM began developing a compendium on comprehensive climate risk management which was finalized in late 2019. The compendium includes four types of approaches to address loss and damage: risk reduction, risk retention, risk transfer and transformational approaches. It is important to note that just as there is no agreed upon definition of "addressing loss and damage" there is also no definition of "transformational approaches," though some work has been done to describe what transformation could mean in the context of L&D. 16

In 2018, a report entitled "Recommendations for integrated approaches to avert, minimize and address displacement related to the adverse impacts of climate change" was produced under the auspices of the WIM, recognizing that climate change will affect and likely drive human migration, and that this displacement is an aspect of loss and damage.¹⁷

At COP25 in Madrid in 2019, UNFCCC established the Santiago Network for Loss and Damage (Santiago Network) as part of the WIM. The Santiago Network was given the mandate to provide technical support to developing countries to address loss and damage. In 2019, developing countries were invited to submit the type and nature of actions for which they require finance to address L&D. A recent brief unpacked further what "addressing loss and damage" means based on the submissions of vulnerable developing countries and the needs at the sub-national and local level.¹⁸

At the the COP26 in Glasgow in 2021, the G77+ China put forth a proposal to establish the Glasgow Loss and Damage Facility. ^{19,20} Countries like the UK and the United States blocked this initiative. Instead, the Parties agreed to establish a two-year Glasgow Dialogue (GD) to discuss possible arrangements for loss and damage funding, with the first discussion held in June 2022. ²¹ Also, at COP26 the functions of the Santiago Network were defined and a process to develop its institutional arrangement was outlined. ²² Until now, the Santiago Network has generally been described as just a website and a talk shop. At COP26, funding was promised for the operations of the Santiago Network (including 10 million Euro from Germany²³) and for the provision of technical assistance. However, it is unclear how much finance will be provided to operationalize the Santiago Network and to provide the technical assistance that countries require.

Year after year, to the frustration of developing countries and civil society organizations, L&D has not been on the official agenda at the COPs beyond the work of the ExCom.²⁴ Finally, this year, "Matters relating to funding arrangements for addressing loss and damage" has been included in the provisional agenda for COP27 in Sharm el-Sheikh.²⁵

Through all of this, there has been no agreed-upon definition of "loss and damage" under the UNFCCC. Likewise, there is no agreed upon definition of what is meant by "addressing loss and damage". Over time, a framework for differentiating types of approaches to address L&D has emerged, but this is not the result of an agreement among the Parties.

For developing countries, the GD will need to deliver on a decision to establish a funding facility for L&D at COP27 in Egypt. Failure to achieve this will further erode trust in international cooperation. The stakes are rising as the conference nears, with some commentators saying L&D will be the defining issue of the event.²⁶ And yet, there is no sign that the Parties are close to bridging their differences.²⁷

5. Who is vulnerable to loss and damage?

Least-developed countries (LDCs), landlocked developing countries (LLDCs) and small island developing states (SIDS) are among the most vulnerable groups of countries in the world. They are disproportionately affected by the negative impacts of disasters caused by natural hazards due to their geography and to structural vulnerabilities like high poverty rates, poor governance, and lack of preparation. It is estimated that people in least-developed countries are, on average, six times more likely to be injured, lose their homes, be displaced or evacuated, or require emergency assistance than those in high-income countries (see Box 1).²⁸

Box 1: Understanding Intersectionality for Loss and Damage

Climate change impacts are not felt equally by everyone everywhere. Loss of resources and impacts on livelihoods and cultural identity are greater among some social groups than others. This difference is primarily the result of vulnerability and exposure rather than physical factors. ²⁹ As part of climate change adaptation, development organizations and institutions have identified that an intersectional approach to gender mainstreaming is essential to understanding and addressing gender-related differences in vulnerability, resilience, and climate change impacts. ³⁰ *An intersectional approach* provides a way for understanding inequalities in the lives of women and girls, men and boys, including their systemic barriers and root causes. It illuminates the fact that climate change is also linked to other forms of inequity and can exacerbate issues for certain communities as a result of social injustices they face all at once. Using an intersectional lens in L&D policy work can help advance equity and empowerment of historically marginalized groups. When assessing post-weather disasters, an intersectional lens can ensure that everyone's perspectives are equally represented and appropriately compensated.

SIDS are the most disaster-prone countries, facing on average an annual loss of 2.1 percent of GDP due to disasters over the period 1970 to 2018.³¹ Due to small domestic markets, SIDS are highly vulnerable to global economic shocks. With the COVID-19 crisis, SIDS are expecting a drop in the current account balance from, on average, -2.7 percent of GDP in 2019 to -12.1 percent of GDP in 2020, mainly due to the drop in tourism.³² It will be crucial to ensure that there is greater financing for disaster risk reduction so that countries can be much more resilient in the face of future hazards. This is particularly important for SIDS and LDCS, which suffer most and longest from the human and economic effects of disaster.

The loss and damage caused by climate change is an obstacle to countries' ability to pursue development goals such as poverty reduction, improved health, education, etcetera.³³

Migration, climate change, and loss and damage

Migration is sometimes caused by loss and damage: when climate-related disasters destroy assets and livelihoods, populations are often displaced. But migration can also be a form of climate adaptation—moving people away from risks and towards opportunity, for example. While disasters like monsoons displace people by destroying their homes, rising sea levels, drought,

extreme weather, and habitat changes displace people by undermining livelihoods and communities. An average of more than 20 million people per year have been displaced by extreme weather events according to the Intergovernmental Panel on Climate Change (IPCC), with climate change being a factor in these displacements. The majority of migration happens within national borders. Consequently, the rhetoric about "climate refugees" is unfounded. Still, there will be millions of people that are forced to migrate due to climate change. By one estimate, between 31 million and 72 million people across Sub-Saharan Africa, South Asia, and Latin America could be displaced by 2050 due to water stress, sea level rise, and crop failure, even in the best case scenario of an aggressive effort to cut global emissions. As the climate changes, the pressure for migration will also grow, although the IPCC notes that migration is complicated and it is impossible to accurately estimate or predict the degree to which migration is caused by climate change at this time.³⁴

Box 2: Loss and damage – The Pakistan floods

Between June and August of 2022, Pakistan received 190 percent of the rain it normally receives. In late August, abnormally heavy monsoon rains hit the southern regions of Sindh and Baluchistan, delivering more than 500 percent of their normal August rainfall. Massive flooding ensued, killing 1,695, affecting 33 million people, and damaging more than 1 million homes. Hundreds of thousands of people are now living in tents or makeshift homes. On August 25, the Government of Pakistan declared a national emergency.³⁵

Experts say that the historical data shows that these rainfall extremes are likely to happen once every 100 years, based on current climate conditions. However, climate is changing and the changes that have already taken place may have made the rainfall five times more intense than it would otherwise have been.³⁶

The monsoon flooding caused about \$30 billion in damages, including massive losses in agriculture, rice, and cotton. Wheat planting is threatened by ongoing flooding.³⁷ Food security is under acute threat and the UN Office for the Coordination of Humanitarian Affairs expects 5.7 million people in flood-affected areas to face food security challenges from September to November.

Pakistan is one of the most vulnerable countries to climate losses according to several indicators, ranking 146 out of 182 countries, according to the Notre Dame Global Adaptation Initiative.³⁸

Before the monsoons, Pakistan was facing very serious fiscal problems with ballooning sovereign debt. The government negotiated \$7 billion in emergency financial assistance with the IMF, but the actual aid has been slow to come.³⁹ But the monsoon poses a devastating economic blow. Moody's recently lowered Pakistan's credit rating and signaled a very negative outlook for the future.⁴⁰ Meanwhile, the UN has expanded the humanitarian appeal from \$160 million to \$816 million, recognizing that the floods are leading to a longer-term crisis. The risk of the spread of diseases such as malaria, dengue fever, scabies and malnutrition is fueling a "second wave of death and destruction," with children and women in its path.⁴¹

Pakistan's Climate Minister Sherry Rehman said, "We are on the frontline and intend to keep loss and damage and adapting to climate catastrophes at the core of our arguments and negotiations. There will be no moving away from that." 42

Vulnerability to climate-caused loss and damage is a function of exposure and resilience. This principle applies to countries, but also to communities and households. Two houses can be exposed to the same storm, but one collapses while the other survives. The difference is whether the structure was built to withstand the wind. Likewise, two households might each suffer a collapsed house, but one is insured, receives a rapid payment, finds temporary lodging, and rebuilds within months. The other household, uninsured, is homeless for months and in debt. Strategies to reduce L&D include building resilience and adaptation to climate risks, all of which must recognize underlying inequalities.

6. The science of loss and damage: Status of climate change attribution science

A three-page cross-chapter box in the IPCC SR15 on 'Residual Risks, Limits to Adaptation and Loss and Damage' in 2018 marked the first time that the IPCC reviewed the scientific literature on L&D.⁴³ The IPCC is the UN body that provides regular assessments of the scientific basis of climate change, its impacts and future risks, and options for mitigation and adaptation.

Along with findings from the IPCC 5th Assessment Report and special reports of its 6th assessment cycle, it is evident that negative effects of slow-onset events are already affecting countries around the world ([2–5] and IPCC, 2018b). The resulting negative effects are anticipated to grow, even assuming that mitigation and adaptation are undertaken. Even with stepped up mitigation and adaptation efforts, even more severe climate change impacts will be unavoidable in the coming decades.⁴⁴

Both the UNFCCC and IPCC recognize that there are limits to adaptation. The IPCC's 6th Assessment Report, published in February 2022, acknowledged that as the magnitude of climate change increases, so does the likelihood of exceeding adaptation limits. It distinguished between "soft" limits where adaptation options exist but are not accessible and "hard" limits where there are no reasonable prospects for avoiding intolerable risks. ⁴⁵ The Global Assessment Report on Disaster Risk Reduction (2022) projects an increase in disasters from 400 in 2015 to 560 per year by 2030.

There is clearly a relationship between adaptation and loss and damage. For example, there ore investment in adaptation that can reduce "residual" loss and damage. But there are "hard limits" for how much adaptation can or will reduce loss and damage, and the relationship between adaptation expenditure and averted L&D flattens out eventually. For example, one study by the UN Economic Commission for Africa estimates the "residual damages" after adaptation in several climate scenarios and several adaptation scenarios. Optimal expenditure on adaptation reduces residual damages. Less than optimal expenditure on adaptation results in more residual damages. Higher than optimal expenditure on adaptation reduces residual damages more, but will cost more than the damages themselves. The point is that even under the most optimal scenarios for adaptation, loss and damage will still occur as the climate changes. Climate change is now inevitable, with the only outstanding question being "how much?"

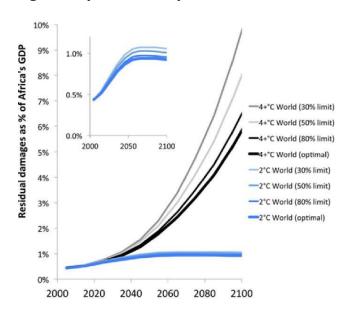


Image 2: Optimal adaption vs. loss and damage

Source: Michiel Schaeffer, Florent Baarsch, Leon Charles, et al., United Nations Economic Commission for Africa, 2014

The science of attribution—how much of extreme weather events is attributable to climate change—has been developing rapidly. Some scientists are now prepared to make credible statements attributing specific events to climate change.⁴⁷ Other economists are studying the economic losses attributable to rising temperatures and further attributing those rising temperatures and

economic losses to specific emitting countries. For example, one study attributes the loss of two percent of GDP per capita in Mali to US carbon pollution from 1990-2014.⁴⁸

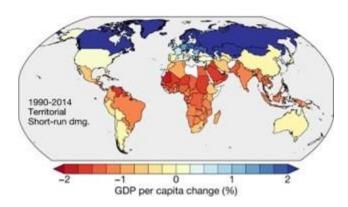


Image 3: Economic losses attributable to US carbon emissions

Source: Christopher Callahan & Justin Mankin, "National Attribution of Historical Climate Damages," 2022

There are still many uncertainties, but the science of attribution is developing rapidly with a growing body of work accumulating quickly.⁴⁹

7. Estimates for L&D

L&D costs are difficult to estimate for several reasons. First, there are many unknown variables ranging from GDP and population growth to mitigation policy agreements and effectiveness of mitigation and adaptation measures. Second, non-economic impacts such as loss of life or social cohesion are difficult to quantify and the cost of loss in one place may not be the same as in another. Third, the lack of an agreed-upon definition of L&D makes it difficult to identify and quantify the harm in a way that is universally accepted. Nevertheless, a number of estimates have been made, often with narrow or limited definitions of economic or other harm. A recent estimate forecasts that, in developing countries, the economic value of "residual damages" that go beyond adaptation will increase from \$116-\$435 billion in 2020 to \$290-\$580 billion in 2030, and could reach between \$1-\$1.8 trillion by 2050.

There are a range of methods to measure loss and damage. Image 4 shows the OECD's estimates of economic and non-economic L&D.

To give a sense of scale and scope of loss and damage, consider the case of Madagascar. In 2022, Madagascar was hit by four storms and cyclones in a period of three months. Coastal areas suffered significant losses with up to 90 percent of houses being destroyed and up to 80 percent of farmlands being flooded. According to Madagascar's National Office for Risk and Disaster Management, 521,000 people have been affected by these cyclones and 251,000 people are in need of immediate support, with at least 94 casualties and 61,500 people displaced.

Long after the cyclones, the effects are still being felt and the harm continues. Excess moisture and flooding have caused reduced food production and increased the risk of hunger. Even roots and tubers were affected as the increase in moisture rotted roots and spoiled those buffer crops which are particularly important for food security.

The loss and damage spans a range of economic, human, cultural, psychological, social, and livelihood harms. Estimates by the World Bank of the damage caused by the four tropical storms could amount to \$660 million or 4.8 percent of GDP, with reconstruction and recovery efforts extending over a decade in the most affected areas. Agricultural losses would account for 42 percent of estimated damages.⁵²

Who pays for loss and damages now? Poor people and poor countries

Right now, the "adjustment costs" for loss and damage largely fall upon poor families, poor communities, and poor countries. A recent study by the International Institute for Environment and Development (IIED) found that in Bangladesh, 43 percent of

households were exposed to floods, 41 percent to storms and 83 percent were affected by longer-term stresses like drought or salinity. Each household spent nearly 7,500 taka (\$88) a year on preventive measures in 2021.⁵³

Moreover, the study found that female-headed households spend two percentage points more of their overall budgets on coping with floods compared to their male-headed counterparts.⁵⁴ And when it came to storms, female-headed households spent as much as 30 percentage points more. The reason for the difference is that men from Bangladesh's northwest regions migrate to work elsewhere, leaving women to run the home. Social norms require women to provide food, water, and other essentials.

Furthermore, an earlier 2019 study by IIED found that Bangladeshi families in rural areas were spending 12 times more each year than the foreign aid that the country had received to prepare for and cope with the effects of climate change.⁵⁵

Very few vulnerable countries have tried to make estimates or plans around loss and damage. In 2022, only 10 of 45 LDCs mentioned L&D in their National Determined Contributions, which are the national climate action plans. Only five LDCs mentioned L&D in National Adaptation Plans, although many described tools and strategies that are related.⁵⁶

Image 4: Estimates of projected losses and damages

Method	Hazard	Area of focus	Estimate
Resampling and reweighing model [1]	Temperature increase and extreme events	Levels of poverty	In the range of 30 and 130 million additional people in extreme poverty by 2030
CGE modelling [2]	Temperature rise, sea-level rise, cyclones and extreme temperatures	Economic effects	Around 1.5% of GDP by 2050 (1-3%)
Econometric [3]	Temperature increase	Economic effects	23% of GDP per capita until 2100, 10% by 2050
IAM [4]	Temperature increase	Non-economic damages to ecosystems	Around USD 190 trillion of non-economic damages to ecosystems by 2050
Climate-health models [5]	Temperature rise, variable rainfall patterns and extreme temperatures, affecting malnutrition, heat stress, diarrhoea and malaria	Healthcare costs	USD 2-4 billion increase of annual healthcare costs between 2030 and 2050
		Mortality through malnutrition, heat stress, diarrhoea and malaria	250,000 excess deaths per year between 2030 and 2050
Literature review [6]	Extreme events	Mental health	Large effects on mental health, disproportionately affecting the most marginalised groups
Systematic case analysis [7]	Climate change	Non-economic losses and damages	Intangible losses and at-risk sentiments are pervasive across the world

Source: Nicolina Lamhauge, Marcia Rocha, Balazs Stadler et al., OECD, 2021

Extremely severe cyclonic storm Chapala Drought event affected 350,000 people located Tropical storm and flooding affected more than 764,000 people (2019) hit Yemen and is mainly in the central considered to be the highlands and eastern Flooding affected more than 231,000 strongest tropical part of the country people and killed at least 75 people (2021) cyclone ever to affect (2016)the country (2015) Niger (Revised NDC) Flooding affected 84,427 people and Flooding affected 100,000 people and more than 60 people died (2021) more than 40 people died (2017) 2016 2020 2022 0000000 00000000 2017 2015 2021 Central African Republic Torrential rain affected 721 Flooding caused 1,200 households (about 3,505 people) deaths and 40 million It destroyed 269 houses and Madagascar people were affected 94 water wells, partially destroyed Torrential rains 135 houses, and destroyed or and flooding killed Flood and landslide killed flooded 107 latrines (2021) 20 people and 117 people (2019) displaced 72,000 Cambodia Over 140,000 families displaced (2015)Flash floods killed by Hurricane Matthew still need 43 people and affected decent shelter (2016) 792,000 people (2020) Hurricane Laura (category 4) was deadly and killed 31 people (2020)

Image 5: Timeline of loss and damage in climate negotiations

Source: Ritu Bharadwaj, Simon Addison, Devanshu Chakravarti, et al., IIED, 2022

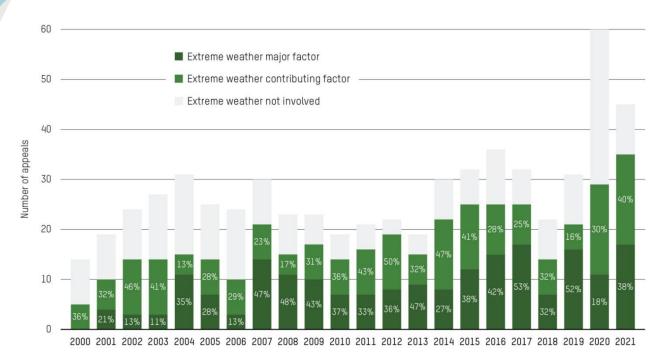
Humanitarian System

While most loss and damage is absorbed by the people and communities who suffer the impacts of climate change, the humanitarian system offers one source of funding that partially offsets some loss and damage. The scale of humanitarian aid is usually very small compared to the losses suffered, but this global humanitarian response does provide some support for acute needs. In fact, developed countries have argued that humanitarian assistance is a major source of loss and damage finance, although humanitarian programs and budgets rarely align to climate frameworks. Humanitarian assistance overlaps with loss and damage, but is not the same. Much of humanitarian assistance addresses hazards that are not related to climate change—for example, armed conflict or geophysical hazards like earthquakes and volcanoes. But it is also true that humanitarian assistance for climate-related hazards is growing, both absolutely and comparatively as a fraction of overall humanitarian spending. An Oxfam analysis of UN humanitarian appeals shows this trend.

Importantly, the current humanitarian system is already stretched beyond capacity, which is an indication for the future of loss and damage finance. In 2020, before COVID, for example, less than half the UN humanitarian appeals were funded (49.9 percent) with the trend getting worse over time.⁵⁷

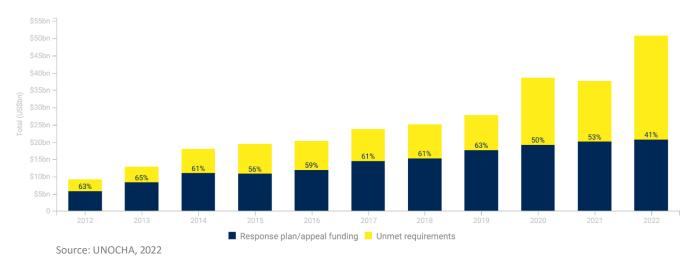
Humanitarian assistance only covers a small fraction of loss and damage, usually in response to specific, catastrophic events. Some humanitarian resources are dedicated to ex ante preparation and risk mitigation. Some are allocated to risk transfer and insurance schemes. But loss and damage spans much more, including cultural and social losses and slow-moving trends—like reduced agricultural productivity and economic growth—that are responsible for long-term losses but are not addressed by event-driven humanitarian aid.

Image 6: Proportion of UN humanitarian appeals for extreme weather



Source: Lyndsay Walsh, Oxfam, 2022

Image 7: Fraction of UN humanitarian appeals met by donors



8. Funding for loss and damage

Within the international climate negotiations, Saleemul Huq has offered a moral challenge to the United States: "Three years of talk is all they would give us—talk, talk, talk....I would like President Biden to offer us \$1. Just \$1. Start the ball rolling. You cannot ask us how many billions we need. We need unlimited billions. But give us \$1."58

The \$1 presents a moral challenge: will the United States actively participate in the international effort to address the loss and damage caused by climate change? The \$1 also presents a technical challenge: where should the money come from, where should it go, and how will it travel in-between?

At the moment, there is essentially no funding provided to address international climate-related loss and damage, aside from humanitarian response, which is provided under a different rationale.

In light of the anticipated increases in climate-related harm, the hard and soft limits to adaptation, and the manifest failures of existing systems to compensate for loss and damage or even meet humanitarian needs, vulnerable countries are seeking new mechanisms to address loss and damage. While the UNFCCC process has been slowly moving, the G77+ China has lodged a demand for a new finance facility to address loss and damage.

The state of climate finance is both a cautionary tale and an argument for a new facility. In 2009, donor countries promised that \$100 billion in climate finance per year would be provided for developing countries by 2020. This funding commitment has been a key part of the "grand bargain" around climate negotiations. "It's the glue that holds the Paris Agreement together" according to David Waskow of the World Resources Institute.⁵⁹ But that glue has never solidified, and donors have not achieved \$100 billion. Even under the most generous definitions, donor countries will not achieve \$100 billion until 2023. More rigorous accounting assessments show donors are not even this close.⁶⁰

At the same time, the Green Climate Fund (GCF) was initiated to serve as a finance vehicle for developing countries to support mitigation and adaptation. However, the GCF has been very slow to become operational and funding commitments have not been met. President Obama promised \$3 billion, but was only able to deliver \$1 billion during his presidency. Other problems include stringent accreditation requirements, long lag times in finance mobilization, and a project-based funding model all of which makes access to finance highly challenging for most vulnerable countries.

Understandably, advocates for L&D want to avoid these problems. And yet, there's no reason to believe that a new facility would be more successful or would be fully implemented any faster.

Risk transfer and insurance mechanisms

Another potential source of finance for loss and damage is through risk pooling and risk-transfer mechanisms, i.e. insurance. This is how advanced economies typically manage hazards, including climate hazards. Yet, such mechanisms are largely unavailable to most people and countries: only about 100 million people in Africa, Asia and Latin America are covered by insurance schemes against climate risks. For many years, the debate around loss and damage has proven to be short-sighted with a near-term focus on creating new and expanded insurance schemes to cover the costs of loss and damage. At its initial meeting in 2014, the WIM put risk management high on the agenda: "Action area 2: Enhance the understanding of, and promote, comprehensive risk management approaches." Literature published on loss and damage between 2013 and 2019 disproportionately emphasized insurance and risk pooling as a possible source of finance and did not consider other sources such as bonds underexplored. Same insurance and risk pooling as a possible source of finance and did not consider other sources such as bonds underexplored.

Insurance schemes have advantages: they can provide confidence and stability in the face of risks, which promotes investments, reduces business risks, and thereby accelerates economic growth. Insurance can also lower the costs of risk management by spreading risks and costs across much bigger markets and geographies. Insurance can provide rapid payouts, which is critical in emergencies and for recovery—a quick compensation for losses and damage. Insurance can also provide information to stakeholders to better understand risk, perceptions of risk, and actual harms.

An "InsuResilience Global Partnership for Climate and Disaster Risk Finance and Insurance Solutions" was officially launched at COP23 in Bonn in 2017. The Partnership was initiated during the German G20 Presidency with a strong involvement of the Ethiopian V20 Presidency. The aim was to create a global V20-G20 initiative with a needs-based approach to increase resilience amongst the poorest and most vulnerable people.⁶⁴

Despite this political attention and support, the growth and scope of insurance schemes to address loss and damage has been very modest. The goal of creating a market in climate risk and transferring large fractions of that risk to the private sector has a limited future. For understandable reasons, the premium required to induce the pooling of climate risk is very high and not viable as a real market. For example, agriculture is a good candidate sector for insurance products, but only a small number of smallholder farmers (roughly 2 million) have insurance coverage across Africa. Few insurance firms in Africa have products designed for agri-small and medium enterprises. The few available products tend to be priced out of reach for the poorest

smallholders.⁶⁵ In general, other experience with catastrophe insurance has demonstrated that its benefits are very limited since the restricted scope of coverage results in loss and damage payouts that are small compared to the losses incurred.⁶⁶

Furthermore, there are many forms of loss and damage for which insurance schemes are not appropriate or relevant. For example, most slow-onset harms such as rising sea levels and increasing temperatures cannot be accommodated in existing insurance models. A viable insurance scheme can cover low-probability events through a risk pool and premiums. But this only handles random and discrete events and can therefore only contribute to adaptation as a risk-spreading instrument.⁶⁷

As head of the G7, Germany recently proposed a "Global Shield Against Climate Risks". The goal is to gather "activities in the field of climate risk finance and preparedness together under one roof." This would include early warning systems, especially in vulnerable countries, preparedness plans, insurance schemes, and social protection systems as part of an integrated shield. Thus far, no additional funding has been committed for the Global Shield and its future is unclear. 69

Still, the scale of these insurance initiatives is quite small compared to the scale of current and projected loss and damage. The proportion of insured losses in vulnerable countries is well below ten per cent, not counting the indirect economic consequences of climate disasters. In contrast, an estimated 50 per cent of losses are covered by relevant insurance in industrialized countries. To Currently, the scale and scope of risk coverage in developing countries is very limited and the insurance premiums are largely covered by government donors as a form of development aid.

There are significant equity questions around insurance schemes. There is extensive evidence⁷¹ that richer households are more likely to utilize insurance, more likely to have required documentation to secure aid and insurance, and more likely to file claims in the event of a loss. Relying too heavily on insurance mechanisms risks solving the problems of the comparatively wealthy while leaving the poor with nothing.

9. Principles for loss and damage funding

The L&D literature contains numerous principles for designing funding mechanisms to address loss and damage. The guiding principles of Article 3 of the UNFCCC are "equity" and "common but differentiated responsibilities and respective capabilities". Since much of loss and damage is closely associated with climate-related disasters, the Sendai Principles for Disaster Risk Reduction offers a useful framework for action and spending: emergency response, reconstruction, and prevention and preparedness. In addition to these principles, other critical issues include the appropriate balance of public and private funding and the best mix of funding tools, including market and non-market mechanisms. In addition, advocates argue that loss and damage finance should conform to the "polluter pays" principle, with those who caused the problem contributing more, based not only on current carbon emissions but historical emissions as well. The resulting financial contributions should also be new and additional, and not cannibalize other climate funding for mitigation and adaptation, nor other development assistance or humanitarian funding. Finance should flow to countries based on need and must be predictable and multi-year. In addition, net new finance should follow the principle of "subsidiarity" and flow to the grassroots communities that are suffering the harms. Local actors should direct and guide loss and damage disbursements and be at the center of decision-making and must be the ones identifying needs, projects, and recipients. Finance should be timely, responsive, and grant-based rather than loan-based so as not to add future economic burdens.⁷³

10. Catholic Social Teachings⁷⁴

What principles might Catholic Social Teaching bring to the debate around loss and damage?

Principal of the common good

Social justice demands that we act in line with the principle of the common good which urges us to work towards putting in place those social, economic, and environmental conditions that support life (Gaudium et Spes, 26). This is because the goods of the Earth belong to all. This is because the goods of the Earth belong to all. Moreover, we must not stop at drawing attention to the adverse impact of climate change on the poor. We are moved to act as in the days of Moses, a patriarch who was sent by God to liberate the Hebrew slaves in Egypt. God had seen the suffering of the poor and elected to intervene through a human being called Moses (Exodus 3). We too are being invited to do something to address the suffering of the poor.

Principle of Human Dignity

NEL ought to be a particular concern for Catholics who, unlike technocrats or policy makers, are fundamentally concerned with those things of value which cannot and ought not ever to be assessed based only by their value in the marketplace. This includes the basic need to live with dignity alongside priceless things that are even harder to touch such as heritage, cultures, social cohesion, daily practices, identities, and relationships.

Only by considering the whole person as a social being with associated material, conceptual, social, and spiritual needs will the Integral Human Development approach be able to help those trying to address L&D and support their communities. The first step must be to identify and deal with the losses they have experienced. Through this approach we can help to understand (1) what people value, (2) the social and political drivers of impacts, and (3) the means of addressing loss to minimize suffering.

Principle of Restorative justice

There are also strong moral imperatives to act through the lens of restorative justice. For the sake of those who suffer, and for the atonement of those responsible, a restorative approach to L&D—which can help the process of healing for both victims and perpetrators—is required. This morally driven approach can help address the current injustices and imbalances of the climate emergency and will promote global harmony instead of disunity and exploitation. Through this act of restoration, we can aspire to the vision of *Fratelli Tutti*: that we can one day dream as one human family.

11. Where to locate a Loss and Damage Finance Facility

While no funding has yet been provided and no new institutional basis for dealing with L&D financing exists, there is at least a debate underway about where a financing facility should be located and whether it should stand on its own. Image 8 shows the pros and cons to each proposal.

Image 8: Possible institutional location for loss and damage mechanism

Options	Advantages	Challenges
Financial arm of the WIM	Better alignment with the WIM's existing knowledge-gathering and coordination activities Close ties with UNFCCC architecture and other relevant processes (e.g. global stocktake) Aligned with and within WIM's existing mandate, with potential to build on ExCom and Santiago Network	Establishment would require consensus within the UNFCCC, which is highly unlikely due to contention around L&D in the negotiations Low capacity and resources of the WIM and slow-moving nature may not address urgency Contribution to already highly fragmented climate finance architecture and increased administrative burden on recipient countries
New window of the GCF	Reduced fragmentation of climate finance landscape and increased efficiency Increased coordination with existing finance for mitigation and adaptation, which can help avoid duplication Reduced administrative burden on recipient countries by using existing structures Continues to strengthen the global governance of climate finance system	Lack of political will for opening any new windows, with significant delays even if consensus were reached Existing funding modalities are not equipped for L&D, particularly sudden-onset events (e.g. project-based funding model) Prominent definitions of L&D within GCF see it as part of adaptation, an obstacle to ensuring additionality Existing criticisms of GCF (high administrative burdens, complex architecture, stringent accreditation requirements, projects having long lag times and not addressing local needs)
External to UNFCCC architecture (e.g. solidarity fund)	Sidestep bureaucracy of negotiations and avoid delays Greater autonomy to individual countries to develop their own approaches Avoid need for consensus and sidestep highly political nature of negotiations on L&D Potential for consistence with human rights principles	Countries not held accountable to commitments under UNFCCC Structure dependent on goodwill of developed countries to take action, which is currently missing Greater challenges in ensuring climate justice principles are respected

Source: Zoha Shawoo, Aaron Maltais, Ines Bakhtaoui, et al., Stockholm Environmental Institute, 2021⁷⁶

12. Climate liability

In the course of the debate around loss and damage, the issue is often framed using the concepts of compensation and "climate reparations." Whatever the merit of these two frames of reference, they have effectively been taken off the table in the UNFCCC negotiations to date. While the 2015 Paris Agreement institutionalized L&D as part of the UNFCCC, it also included Paragraph 51 in which the conference:

51. Agrees that Article 8 of the Agreement not involve or provide a basis for any liability or compensation;

So, while Annex 1 countries continue to resist including L&D in the negotiations, there are already clear barriers in in place preventing the creation liability and reparations schemes within the UNFCCC.

Some researchers note that climate litigation in the context of L&D may be more of a symbolic action.⁷⁷ However, case-by-case litigation for climate change compensation would be extremely time consuming and cumbersome, probably ineffective, and result in wasted time and resources.⁷⁸ Still, the field of climate litigation is growing rapidly, and there is an expectation that more cases will be launched on issues related to loss and damage.⁷⁹ Some stakeholders are pursuing litigation-related strategies outside the UNFCCC. Vanuatu has announced it will campaign to secure an advisory opinion from the International Court of Justice to clarify state obligations with regard to the prevention of and redress for climate change.⁸⁰ Some research also notes that the lack of progress on L&D has resulted in an increase in climate litigation, and projects that this will grow unless a financial mechanism to deal with L&D is created.⁸¹

13. Conclusion

In public and policy debate, loss and damage has largely been invisible in the United States. For example, there are few offices on Capitol Hill that are even familiar with the issue, much less expressing clear positions or policies about it. Even among supporters of strong climate action, there is a high level of skepticism about tackling the issue. The staff of the US State Department and USAID are familiar with the issue but are primarily treating it passively, seeking to minimize political and budgetary risks.

For CRS, the question is what is necessary and beneficial. Progress in the United States on the issue is likely to take time, years at least, and much education of stakeholders, including within CRS.

To date, CRS has not directly addressed the issue of loss and damage from climate change. But it may now be time to do so. A combination of factors brings loss and damage to the doorstep of CRS: the alarming scale and frequency of climate impacts, the growing concern about loss and damage in civil society and among vulnerable countries, and the imminent debate at COP27 in November 2022.

More importantly, the call to address loss and damage speaks to the values and mission of a Catholic organization. Beyond preventing the worst of the climate crisis and protecting the most vulnerable, providing special measures for those who do suffer—a preferential option for the poor—is a compelling role for CRS. Loss and damage offers a way of viewing the problem of climate change through the lens of those most affected; a different perspective than monitoring progress on reducing greenhouse gas emissions, for example. This would serve to increase focus, attention, and ambition on actions to accelerate adaptation, but more importantly it would stimulate action to address loss and damage.

14. Recommendations

Based on the analysis provided, the following recommendations are proposed:

- Support the establishment of a Loss and Damage Finance Facility: At COP26, the G77+ China proposed the creation of a Finance Facility for Loss and Damage. This proposal was rejected towards the end of COP26 but remains a priority for developing countries at the UNFCCC, and the issue of finance for Loss and Damage is on the provisional agenda for COP27. The creation of a Finance Facility of Loss and Damage is, therefore, a priority for COP27 in November in Sharm el-Sheik.
- 2. Advocate for principles of funding for loss and damage
 - 2.1. *Just*: Facilitate dialogue and encounters based on Pope Francis' third encyclical, *Fratelli Tutti*, to achieve a more just and healthier world.

- 2.2. Fair: Base funding on needs and vulnerability, in keeping with a preferential option for the poor.
- 2.3. *Comprehensive*: Address both economic and non-economic loss and damage, recognizing the fullness of human life and values which transcend economic transactions.
- 2.4. *Accessible:* Ensure that support and compensation for climate loss and damage is directly accessible, and directly paid, to those who suffer the harms.
- 2.5. *Subsidiarity:* Decisions should be made and funding delivered to the lowest level possible, with higher levels of authority intervening only if the lower levels are unable to accomplish a task as well or as efficiently.
- 3. Support the **creation of a standing agenda item on loss and damage for the UNFCCC**, recognizing the importance of this issue, alongside other elements of the climate crisis and agenda for action.
- 4. Support for rapid operationalization and robust funding of the Santiago Network.
- 5. For the US, encourage policy makers to recognize and align policy towards addressing loss and damage—a goal that is wholly missing in US policy and programs.
- 6. Advocate for debt cancellation. After extreme climatic events, debt cancellation should be granted to ensure that countries are not forced to make loan repayments, but can instead use their money to support residents after extreme climatic events. There is a tight nexus between climate impacts and other macroeconomic issues, especially sovereign debt. Many climate-vulnerable countries are also at greater risk of debt crisis. They are just one hurricane away from default. Sovereign debt is drawing resources away from climate adaptation and is hampering the ability to address the losses and damage of climate change.
- 7. There is relatively low awareness of the issue of loss and damage caused by climate change among US policy makers.

 Outreach and education are needed to raise awareness and to enable these leaders to begin to consider policy ideas to address the issue.

Appendix

Key terms:

Slow Onset Events: Slow onset events usually develop gradually over time, and their impacts are often based on a confluence of several different events (UNFCCC, 2012).

Extreme Weather Events: An extreme weather event is an event that is rare at a particular place and time of the year (IPCC, 2012).

Adaptation: Adaptation is an adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities. Various types of adaptation can be distinguished, including anticipatory, autonomous, and planned adaptation (IPCC, 2007). 82

Vulnerability: The United Nations Office for Disaster Risk Reduction defines vulnerability as "The conditions determined by physical, social, economic and environmental factors or processes which increase the susceptibility of an individual, a community, assets or systems to the impacts of hazards."⁸³

Paris Agreement: Legally binding international treaty on climate change that was adopted at the Conference of Parties (COP21) in Paris. It sets out a global framework to avoid dangerous climate change by limiting global warming to well below 2° C and pursuing efforts to limit it to 1.5° C. It also aims to strengthen countries' ability to deal with the impacts of climate change and support them in their efforts.

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