A Real Mosaic of Solutions to Respond to Loss and Damage from Climate Change

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Acronyms and Abbreviations

AO	Advisory Opinion
BIM	Barbados Implementation Modalities
BTRs	Biennial Transparency Reports
CARICOM	Caribbean Community (the intergovernmental organisation)
Cat Bonds	Catastrophe bonds
Cat DDO	Catastrophe deferred drawdown option
CBD	Convention on Biological Diversity
CBDR-RC	Common but differentiated responsibilities and respective capabilities
CBDRM	Community-based disaster risk management
CDT	Climate Damages Tax
CERF	Central Emergency Fund
CMA	Conference of the Parties serving as the meeting of the Parties to the Paris Agreement
COP	Conference of the Parties
CREWS	Climate Risk Early Warning Systems
CSS	The Fund for Responding to Loss and Damage's Country Support System
CSSF	Comprehensive School Safety Framework
CTCN	Climate Technology Centre and Network
DREF	Disaster Response Emergency Fund
DRR	Disaster risk reduction
EbA	Ecosystem-based adaptation
ESD	Education for Sustainable Development
EU	European Union
EW4All	Early Warnings for All
ExCom	Executive Committee of the Warsaw International Mechanism
FPIC	Free, Prior, and Informed Consent
FRLD	Fund for Responding to Loss and Damage
FTT	Financial Transaction Tax
G20	Group of 20
GCF	Green Climate Fund
GCM	Global Compact for Safe, Orderly and Regular Migration
GCOS	Global Climate Observing System

GDP	Gross Domestic Product
GFDRR	Global Facility for Disaster Reduction and Recovery
GGA	Global Goal on Adaptation
HNAPs	Health National Adaptation Plans
IACHR	Inter-American Court of Human Rights
ICJ	International Court of Justice
IFIs	International financial institutions
IFRC	International Federation of Red Cross and Red Crescent Societies
IMF	International Monetary Fund
IOM	International Organization for Migration
IPCC	Intergovernmental Panel on Climate Change
ISDS	Investor-state dispute settlement
JTM	Just Transition Mechanism
L&DC	Loss and Damage Collaboration
LCIPP	Local Communities and Indigenous Peoples Platform
LDCs	Least Developed Countries
LLA	Locally led adaptation
MDBs	Multilateral development banks
MHEWS	Multi-hazard early warning systems
MiGOF	Migration Governance Framework
NAP	National Adaptation Plans
NBSAP	National Biodiversity Strategies and Action Plans
NCQG	New Collective Quantified Goal on Climate Finance
NDC	Nationally Determined Contributions
NELD	Non-economic loss and damage
NGO(s)	Non-governmental organisation(s)
OBNEs	Organisations, Bodies, Networks and Experts
OCHA	Office for the Coordination of Humanitarian Affairs
ODA	Official Development Assistance
OECD	Organisation for Economic Co-operation and Development
R4	R4 Rural Resilience Initiative
RPSP	The GCF's Readiness and Preparatory Support
Santiago Network	Santiago Network Santiago network for averting, minimising and addressing loss and damage
SDGs	Sustainable Development Goals
SDRs	Special Drawing RIghts

SIDS	Small Island Developing States
SOFF	Systematic Observations Financing Facility
TFD	Task Force on Displacement
UN	United Nations
UN Debt Convention	United Nations Framework Convention on Sovereign Debt
UNCCD	United Nations Convention to Combat Desertification
UNDRR	United Nations Office for Disaster Risk Reduction
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
UNGA	United Nations General Assembly
UNICEF	United Nations Children's Fund
US	United States of America
USD	United States Dollars
WHO	World Health Organization
WIM	Warsaw International Mechanism for Loss and Damage
WMO	World Meteorological Organization
WTO	World Trade Organization

Executive Summary

What is the problem?

Earth's average temperature is approaching 1.5°C (2.7° Fahrenheit) above pre-industrial levels as a result of human activities such as the burning of fossil fuels and unsustainable agriculture.[1] Current national climate plans put the world on track for a catastrophic 2.3-2.5°C of warming by 2100.[2] The Intergovernmental Panel on Climate Change (IPCC) tells us that loss and damage from climate change will escalate with every increment of warming.[3] Developing countries are disproportionately impacted, despite contributing least to the crisis.[4] Underdevelopment, sovereign debt,[5] and unfair trade[6] and tax[7] rules limit their ability to respond. Humanitarian,[8] development,[9] and climate finance flows are being slashed as geopolitical tensions escalate.[10]

What is the solution?

To respond to loss and damage, while enabling developing countries to build long term resilience and achieve the Sustainable Development Goals (SDGs), a fit for purpose "mosaic of solutions" must be catalysed both inside and outside the United Nations Framework Convention on Climate Change (UNFCCC). One that:

- **Prevents loss and damage:** By enabling climate change mitigation and facilitating a just transition that limits global warming to 1.5°C, ensuring the protection of ecosystems and scaling up sustainable development to achieve the SDGs.
- **Reduces loss and damage:** By properly funding and implementing climate change adaptation, disaster risk reduction (DRR), preparedness, early warning systems, and anticipatory action while ensuring universal social protection.
- **Addresses loss and damage:** By scaling up and properly funding:
    - *Immediate response* (within hours, days, and weeks) by humanitarian actors that provide emergency health care, shelter, and food that saves lives.
    - *Mid term response* (within weeks and months) by the Fund for Responding to Loss and Damage (FRLD), United Nations (UN) agencies, and other partners, including philanthropy, to prevent and reduce further harm to livelihoods, food systems, health, culture, infrastructure, and more.
    - *Sustained long-term response* (over years and decades) to recover lost development, build back better, ensure long term risk reduction and management and resilience building, and guarantee remedy —and where required— reparations.

- **Ends disenablers of loss and damage response:** By facilitating debt cancellation, reforming trade rules to be fair and prioritise suitable development, reclaiming lost tax revenue, and making the international financial architecture accessible and equitable.

This mosaic must be held together by a "glue". One that ensures loss and damage responses are delivered in an effective, coordinated way, informed by needs and the latest understanding, and underpinned by accountability and transparency. The key ingredients of the "glue" are:

- Coordination, coherence, and complementarity;
- Systematic observation, data, science, knowledge, and lived experience;
- Capacity building, readiness, technical assistance, knowledge and technology transfer; and
- Accountability, reporting, principles, norms, human rights, and international law.

Note, the technical assistance catalysed by the Santiago Network has a critical role to play in each phase of loss and damage response. The Network must be adequately resourced to ensure that developing countries, and the communities within them, can assess their Loss and Damage needs, and put in place plans to address them.

What are the main findings of this paper?

The mosaic of solutions approach is itself a solution that can help:

- Address the complex, multifaceted nature of loss and damage and the unknowns of cascading impacts and tipping points[11] through a "policy mix".
- Strengthen coherence, coordination, and complementarity across climate change, DRR, humanitarian, biodiversity, and development agendas and the three Rio Conventions.
- Strengthen loss and damage responses from the global to the local level by translating global and regional policy frameworks into implementation and institutionalisation.
- Catalyse a menu of solutions that communities, countries, and regions can tailor to their needs, priorities, and circumstances.
- Ensure responsive governance based upon the needs and priorities of affected countries and communities, and the solutions they are spearheading.
- Bypass power bottlenecks to ensure that marginalised groups receive support when governments cannot, or will not, provide assistance (e.g. cash transfers and direct access).
- Mainstream human rights, equity, and justice, the centring of Indigenous and local knowledge, ensure both Free, Prior and Informed Consent (FPIC), and that communities are actively participating in decision making and driving responses to loss and damage.

There is a vast finance gap within the mosaic of solutions. Achieving the SDGs requires 4 trillion USD per year.[12] Ecosystem protection and restoration: 700 billion USD per year.[13] Climate change mitigation: 4.725 trillion USD per year.[14] Climate change adaptation: 365 billion USD per year.[15] Loss and Damage: 724.43 billion USD a year.[16] And 33 billion USD is needed for Humanitarian action in 2026 alone.[17] The money currently available is far too little, comes far too late, most often comes as loans that worsen

existing debt burdens, and is too hard to access. Easily accessible, grant based, new and additional finance, is needed.

Past, precedents including the International Monetary Fund's (IMF) allocation of Special Drawing Rights (SDRs) worth approximately 650 billion USD[18] during COVID-19[19] demonstrate that resources can be mobilised quickly to address urgent needs. A fit for purpose UN Tax Convention can reclaim trillions of dollars in lost tax revenues each year.[20] Developed countries can mobilise at least 6.6 trillion USD from innovative sources each year to meet their finance obligations (e.g. through a Climate Damages Tax).[21] The IMF can allocate hundreds of billions of USD in SDRs each year.[22] The money is there to close the finance gap, only the political will to mobilise it is lacking.

A fit for purpose UN Framework Convention on Sovereign Debt can facilitate debt cancellation for developing countries and prevent them from facing future debt crises.[23] Trade reform can move developing countries up global value chains and enable them to place taxes and tariffs on digital services.[24] The abolition of the Investor-State Dispute Settlement (ISDS) mechanism can allow all countries to take climate action without the fear of being sued by planet wrecking corporations.[25]

Despite the FRLD convening an annual High Level Dialogue on coordination and complementarity, a coordination gap persists within the existing mosaic. A high level coordination mechanism for loss and damage response is needed under the UN.

What are our key recommendations?

- The finance gap must be closed. Readiness, technical assistance, capacity building, and technology transfer must be provided at the scale, scope, and urgency of needs.
- The SDGs and the targets of the Sendai Framework for Disaster Risk Reduction must be achieved by 2030.
- Universal early warning and social protection coverage must be achieved by 2027 and 2030 respectively.
- The humanitarian system must be transformed into a locally led and internationally supported system that is resourced to the scale of the needs by developed countries.
- All solutions must:
    - Align with the principles of the polluter pays, do no harm, equity, and common but differentiated responsibilities and respective capabilities (CBDR-RC);
    - Uphold international law, including human rights, and the rights of Indigenous Peoples, while ensuring FPIC;
    - Respond to the needs of vulnerable and marginalised groups (e.g. women, Indigenous Peoples, older people, migrants, refugees and displaced persons, children, youth, and persons with disabilities) and employ intersectional and transformative approaches; and
    - Ensure that communities drive planning and implementation.

1

Introduction

Earth's average temperature is approaching 1.5°C (2.7° Fahrenheit) above pre-industrial levels as a result of human activities such as the burning of fossil fuels and unsustainable agriculture.[26] The IPCC is clear that loss and damage from climate change will escalate with every increment of warming.[27] Yet despite these risks, current national climate targets put the world on track for a catastrophic 2.3-2.5°C of warming by 2100.[28]

Although the IPCC confirms that limiting warming to the 1.5°C temperature goal of the Paris Agreement will reduce future loss and damage, locked in warming means that not all loss and damage will be avoided. Therefore, we now face the challenge of preventing, reducing, and addressing loss and damage simultaneously. Developing countries and the frontline communities within them are disproportionately impacted, despite contributing least to climate change.[29] The Loss and Damage[30] finance needs of developing countries are estimated to have been between 128–937 billion USD in 2025 alone[31] —a figure that is expected to rise into the trillions per year by the 2050s.[32] [33]

Unfortunately, progress on Loss and Damage under the UNFCCC has been woefully inadequate. At the same time, complementary Loss and Damage support from humanitarian[34] and development[35] actors —which were already a fraction of the needs— have been slashed as geopolitical tensions escalate and spending priorities shift to militarisation.[36] The cost of living crisis arising from the conflict in the Middle East is likely to result in further cuts.[37]

In a previous brief, we laid out our five-year vision for Loss and Damage under the UNFCCC, which stressed the importance of strengthening the functions of the Warsaw International Mechanism for Loss and Damage (WIM) and fully resourcing its Santiago Network and the FRLD. While we continue to strive to ensure progress under the UNFCCC, this paper presents a novel approach to Loss and Damage, one that catalyses "a mosaic of solutions" that can both meet the scope and scale of the needs of developing countries and frontline communities while building long term resilience and advancing sustainable development.

Although system change will be needed to ensure that all humans, ecosystems, and species can thrive and not just survive, in the midst of climate change and other planetary challenges, putting in place a fit for purpose, fully resourced mosaic is a key step towards the deeper transformations needed to achieve a just and habitable future.

2

The mosaic of solutions

In this chapter we provide an overview of where the mosaic of solutions approach comes from, why it is needed, what a fit for purpose mosaic looks like, and what makes up the glue that holds it together. We also unpack what counts as a solution and why we need to reclaim the narrative of the mosaic of solutions.

Where does the mosaic of solutions approach come from?

During the 27th meeting of the UNFCCC's Conference of the Parties (COP 27), as negotiations to establish the FRLD were ongoing, the Maldives' Minister of Environment, H.E. Aminath Shauna called for a "mosaic of solutions" to address loss and damage.[38] When the gavel fell, cementing the historic decision to establish the FRLD, the mosaic of solutions approach was reflected in the establishment of new Loss and Damage funding arrangements[39] alongside the Fund. Since COP 27, the Maldives' vision for the mosaic has been further elaborated by researchers and Loss and Damage negotiators.[40]

Why is a mosaic of solutions needed? What does a fit for purpose mosaic look like?

Although the FRLD, alongside the WIM, its Executive Committee (ExCom) and Santiago Network, will fill a critical gap in support to address loss and damage, if fully resourced, the Loss and Damage arrangements under the UNFCCC alone cannot meet all of the needs of developing countries. Therefore, a broader mosaic of solutions must be catalysed. One that can prevent, reduce, and address loss and damage, while building long term resilience, meeting the SDGs, and addressing the root causes of vulnerability. Thus, a fit for purpose "mosaic of solutions" will need to:

- **Prevent loss and damage:** By enabling climate change mitigation and facilitating a just transition that limits global warming to 1.5°C, ensuring the protection of ecosystems and scaling up sustainable development to achieve the SDGs.
- **Reduce loss and damage:** By properly funding and implementing climate change adaptation, disaster risk reduction (DRR), preparedness, early warning systems, anticipatory action, while ensuring universal social protection.
- **Addresses loss and damage:** By scaling up and properly funding:
    - *Immediate response* (within hours, days, and weeks) by humanitarian actors that provide emergency health care, shelter, and food, that saves lives.
    - *Mid term response* (within weeks and months) by the Fund for Responding to Loss and Damage (FRLD), UN agencies and other partners, including

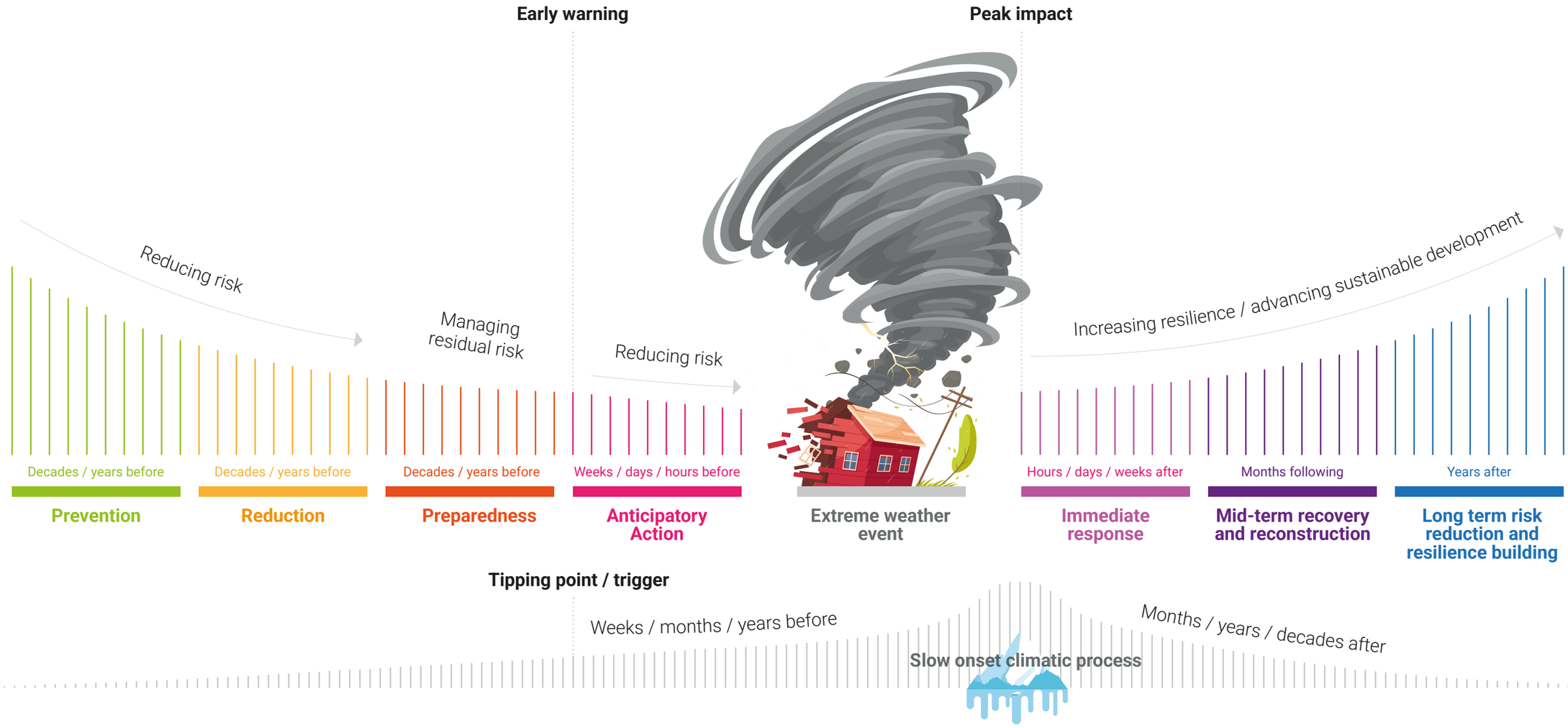
philanthropy, to prevent and reduce further harm to livelihoods, food systems, health, culture, infrastructure, and more.

- *Sustained long-term response* (over years and decades) to recover lost development, build back better, ensure long term risk reduction and resilience building across all sectors, and guarantee remedy, and where required, reparation.

- **Enable loss and damage repose:** By mobilising finance, technical assistance, capacity building, and technology transfer at the scale of the needs, enabling risk layering,[41] and putting in place:
  - Strong national systems, mechanisms, and plans, including DRR strategies, National Determined Contributions (NDC), National Adaptation Plans (NAP), National Biodiversity Strategies and Action Plans (NBSAP), and Loss and Damage response plans.
  - Pathways for safe, orderly, and regular migration as well as strategies for rights-based planned relocation and preventing and responding to displacement; and
  - By increasing fiscal space through debt cancellation, reforming trade rules to be fair and prioritise suitable development, reclaiming lost tax revenue, and making the international financial architecture accessible and equitable.

At its core, a fit for purpose mosaic will facilitate a strategic combination of diverse policy instruments that can interact to address the complex, multifaceted nature of loss and damage. Given the uncertainty of what will happen when it comes to the cascading impacts of climate change and tipping points,[42] this "policy mix" will ensure adequate responses to loss and damage that leave no one behind. Figure 1 illustrates a fit for purpose mosaic of solutions across the different phases of loss and damage response.

Figure 1: How the mosaic works across different phases of loss and damage response

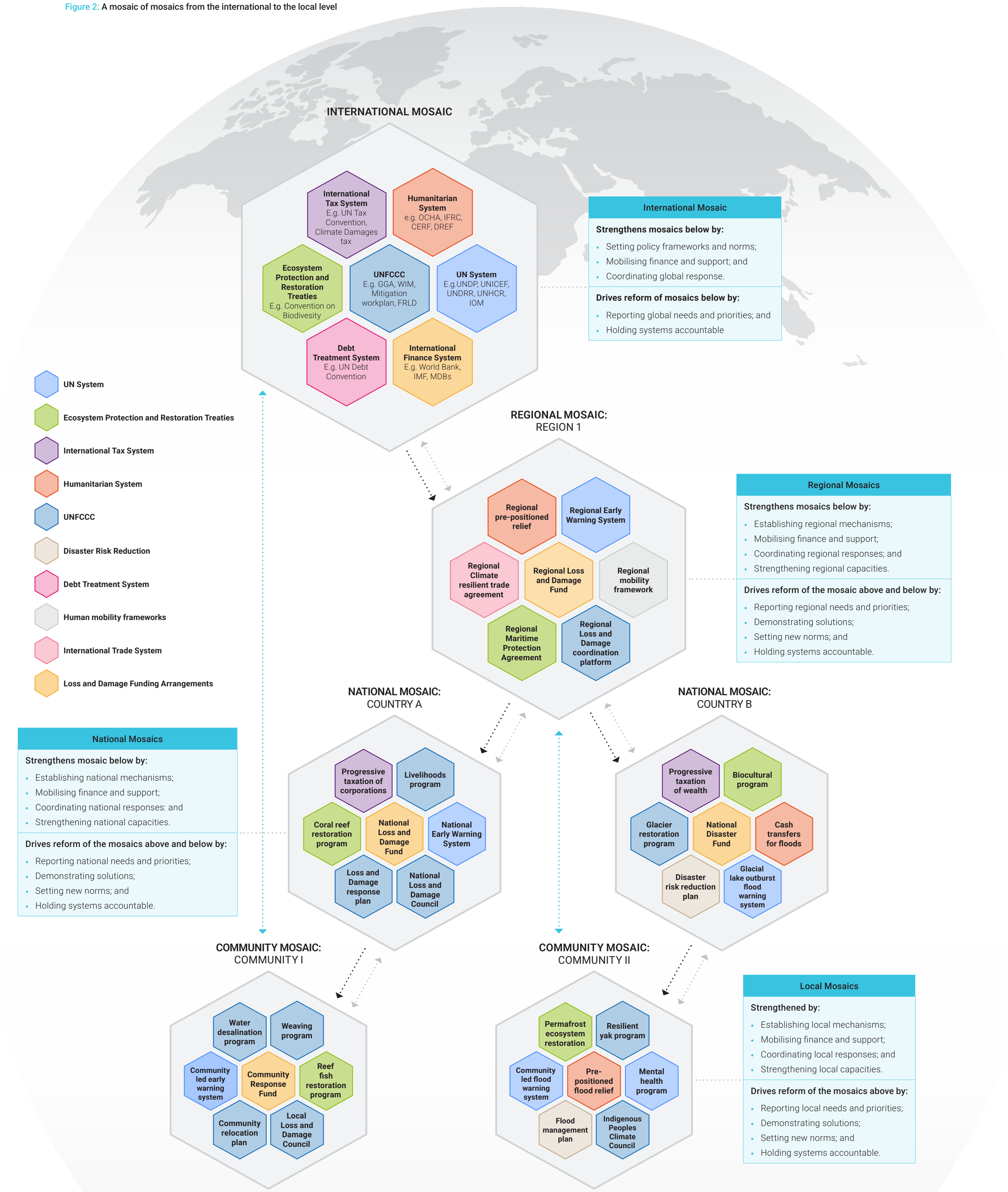


Prevent loss and damage:	Reduce loss and damage:	Reduce loss and damage (prepare):	Reduce loss and damage (take action before):	Loss and damage event:	Address loss and damage (immediate):	Address loss and damage (mid-term):	Address loss and damage (long-term):
• Climate mitigation • Just transition • Sustainable development • Ecosystem protection	• Climate adaptation • Disaster risk reduction	• Early warning systems • Strengthen social protection	• Anticipatory action (e.g. pre-positioned relief, pre arranged finance, insurance, anticipatory social protection, cash transfers, etc)	*Extreme weather event* • Hurricane / cyclone / typhoon • Wildfire • Flood *Slow onset climatic process* • Sea level rise • Glacial retreat • Ocean acidification	• Humanitarian response	• Recovery and reconstruction (e.g. responses to loss and damage to livelihoods, biodiversity, culture and heritage, and heath and wellbeing).	• Building back better • Debt cancelation • Tax and trade reform • Remedy and reparation

After the last loss and damage event is before the next loss and damage event

A fit for purpose mosaic will strengthen loss and damage responses from the international to the local level by translating global and regional policy frameworks into implementation and institutionalisation. In doing so, the mosaic will catalyse a menu of solutions that communities, countries, and regions can tailor to their needs, priorities, and circumstances. This will help bypass power bottlenecks, ensuring that marginalised groups receive the support they need when governments or other decision makers cannot, or will not provide assistance. Figure 2 demonstrates, with a non-exhaustive number of mosaic pieces, what mosaics at the international, regional, national and local levels might look like, and how they strengthen and reform mosaics at higher and lower levels.

Figure 2: A mosaic of mosaics from the international to the local level



At the same time, the mosaic approach will drive reform in mosaics at higher levels, by reporting needs and priorities, demonstrating solutions, setting new norms and holding systems accountable.

As a point of convergence, a fit for purpose mosaic will also strengthen coherence, coordination, and complementarity across climate change, disaster risk reduction, humanitarian, biodiversity, and development agendas.[43] It will also enhance synergies between the three Rio Conventions —the UNFCCC, the Convention on Biological Diversity (CBD), and the UN Convention to Combat Desertification (UNCCD).

This will help avoid gaps and silos that limit the implementation of loss and damage responses and their effectiveness.[44] It will also help establish protocols for loss and damage responses, including the automation of response actions across multiple policy frameworks and intuitions. For example, the automatic cancellation of debt by the IMF alongside the automatic release of finance from the UN's Central Emergency Fund (CERF) after a loss and damage event of a certain magnitude.

The mosaic approach will also mainstream best practices and norms, uphold international law, and operationalise the principles of the polluter pays, do no harm, equity, and CBDR-RC.

Lastly, by centring the Loss and Damage discourse, the mosaic will help to drive reforms across other policy agendas. For example, the legal requirement to provide Loss and Damage finance based on historic responsibility should urge the humanitarian system to shift from voluntary to obligatory funding mechanisms and from charity-based to justice-based narratives.[45]

Chapter 2 unpacks the key pieces of the mosaic in more detail.

What makes up the glue that holds the mosaic together?

A fit for purpose mosaic must be held together by "glue". One that ensures loss and damage response is delivered in an effective coordinated way, that it is informed by needs, priorities and the latest understanding, and is underpinned by accountability and transparency. The key ingredients of the "glue" are:

- Coordination, coherence, and complementarity;
- Systematic observation, data, science, knowledge, and lived experience;
- Capacity building, readiness, technical assistance, knowledge and technology transfer; and
- Accountability, reporting, principles, norms, human rights, and international law.

Chapter III unpacks the ingredients of the glue in more detail. Note, the technical assistance catalysed by the Santiago Network has a critical role to play in each phase of loss and damage response. The Network must be adequately resourced to ensure that developing countries, and the communities within them, can assess their Loss and Damage needs, and put in place plans to address them.

What counts as a solution within the mosaic of solutions?

A fit for purpose mosaic is made up of solutions that can meet the needs of developing countries and the communities within them, not false solutions that can cause further harm. Fit for purpose solutions must:

- Mobilise finance and support at the scale and urgency of the needs;
- Align with the principles of the polluter pays, do no harm, equity, and CBDR-RC;
- Be informed by the best available science, Indigenous and local knowledge, and the needs, priorities, and experiences of affected groups, communities, and countries;
- Uphold international law, including human rights and the rights of Indigenous Peoples, the right to remedy, the right to a clean, healthy, and sustainable environment, while ensuring FPIC;
- Respond to the needs of vulnerable and marginalised groups (e.g. women, Indigenous Peoples, older people, migrants, refugees and displaced persons, children, youth, and persons with disabilities) and employ intersectional and transformative approaches;
- Centre affected populations, local communities, and vulnerable and marginalised groups in decision making;
- Provide or mobilise finance that is new and additional, grant based (i.e. not debt inducing) and pro poor (e.g. ensuring that taxes to raise climate finance do not burden low income households but instead target the wealthy and most responsible).
- Uphold the obligations of States to prevent, reduce, and address loss and damage.
- Make transformative changes as needed, instead of delaying or deferring action and/or making minor changes.
- Use only technologies and/or approaches that are proven, sustainable and are affordable (i.e. not false solutions like carbon capture storage); and
- Prevent, reduce and address loss and damage, not increase loss and damage or vulnerability to it.

However, it is important to recognise that the needs and priorities, and thus what can be regarded as a solution, must ultimately be determined by affected countries and communities. It must also be acknowledged that communities are not homogenous, but diverse and often shaped by power dynamics.[46] Therefore, it is critical to ensure that responses reach all segments of the population, especially frequently marginalised groups, such as Indigenous Peoples. Marginality must not be exacerbated by the implementation of responses (e.g. through displacement). Instead, particularly vulnerable groups must be centred in decision making.

Why do we need to reclaim the narrative of a mosaic of solutions approach?

Shortly after the Maldives called for a mosaic of solutions at COP 27, the term was appropriated by the European Union (EU) and the narrative was changed to justify why the FRLD was not needed.[47,48] Since COP 27, the EU and other developed countries have continued to push an alternative mosaic of solutions narrative in Loss and Damage and climate finance negotiations. These efforts have included persistent attempts by developed countries to diminish climate finance obligations by "leveraging" the private

sector and expanding the contributor base to include developing countries with large economies (e.g. China). They have also prioritised the use of debt creating finance instruments.

With the potential for the mosaic to become a normative governance framework —a structured system of rules, principles, and shared values designed to guide the behavior and decision-making of actors within the mosaic— who gets to define what the mosaic is will be key. Therefore, this paper is a concerted effort to reclaim the mosaic of solutions as a tool that can be harnessed by the most affected to advance climate justice.

3

The current mosaic vs an ideal mosaic

In this chapter we unpack the mosaic of solutions currently available to developing countries versus what is needed across each phase of loss and damage response.

Prevention

Prevention is the most effective way to reduce climate risk and avoid loss and damage. Actions to prevent loss and damage include enabling climate change mitigation by facilitating a just transition, achieving the SDGs, and ensuring the protection of ecosystems.

Climate change mitigation

Climate change mitigation involves reducing or preventing greenhouse gas emissions to limit the severity of global warming. Key strategies include transitioning to renewable energy systems, enhancing energy efficiency, protecting carbon sinks (e.g. forests), and shifting to sustainable land use.

What we have now	What we need
We are on track to 2.3-2.5°C of warming by 2100[49] and every increment of warming will lead to more loss and damage. As a result, loss and damage could cost trillions of USD a year by 2100.[50,51,52] Developed countries have failed to take the lead in reducing emissions and providing climate finance to developing countries to transition away from fossil fuels.[53] This has significantly delayed progress on mitigation. Conflicts of interest within the UNFCCC, such as the influence of fossil fuel and agriculture companies on climate negotiations, are further compounding inaction.[54,55]	Reductions to annual emissions of 55 percent (compared with 2019 levels) are needed by 2035 to keep us on track with the 1.5°C goal of the Paris Agreement.[56] This necessitates a rapid, systemic, just transition in energy, land use, urban and industrial systems —including a fair, fast, full, and funded phase out of fossil fuels. For this to happen, at least 4.725 trillion USD in new and additional, high quality climate finance is needed each year.[57] A Fossil Fuel Non-Proliferation Treaty must also be agreed to ensure fossil fuels will not cause harm again in the future.

Just transition

A just transition frames the shift to net zero carbon emissions through a human rights lens with the intention of eliminating existing inequalities,[58] maximising the benefits of climate action, and minimising the negative impacts for workers and their communities.[59] It involves supporting workers and communities in high-carbon industries (e.g. coal mining) through training, social protection, and livelihood diversification.

A critical component of a just transition is ensuring that Indigenous Peoples and their lands and territories are not exploited through the extraction of critical minerals.[60] Without a just transition, communities that depend on high carbon livelihoods and/or are living in close proximity to sites of critical mineral extraction, could face marginalisation during the shift to net zero (e.g. through displacement and/or the loss or livelihoods). Thereby, leaving them with increased vulnerability to loss and damage and less means to respond to it.

What we have now	What we need
Past transitions have been profoundly un-just.[61] The extraction of critical minerals often happens without the FPIC of affected Indigenous Peoples, violating their rights.[62] Developing countries often lack the fiscal space and social protection needed to undertake transitions.[63] These challenges —compounded by the failure of developed countries to provide climate finance—[64] are delaying the transition and increasing the risk of un-just transitions.	The Just Transition Mechanism (JTM) established under the Paris Agreement in 2025 needs to be designed and operationalised in 2026.[65] A fit for purpose JTM must: 1. Map existing just transition initiatives, identify gaps, and steer and coordinate the overall transition; 2. Facilitate dialogue, share best practices, and generate new knowledge; and 3. Mobilise and channel non-debt-inducing finance and technology transfer, particularly to developing countries.[66] Developing countries must also receive finance, technical assistance, and capacity building support to establish just transition commissions[67], funds, and/or programs, as needed and as they see fit.

Sustainable development

Sustainable development has been defined by the UN as development that meets the needs of the present without compromising the ability of future generations to meet their own needs.[68] By advancing sustainable development, loss and damage can be both prevented and reduced.

What we have now	What we need
The underdevelopment of Global South countries is the result of centuries of colonial exploitation, uneven economic exchange, and structural subordination by countries in the Global North.[69] This has drained resources and left Global South countries unable to meet the basic needs of their citizens, such as health care and education.[70] Only 35 percent of the SDGs are on track or making modest gains to be met by 2030.[71] Nearly half are progressing too slowly and 18 percent are actually regressing.[72] Challenges include a 4 trillion USD annual financing gap and inadequate data collection and analysis to support implementation and monitor progress in developing countries.[73] As climate impacts escalate, hard won development gains are being reversed, further exacerbating loss and damage and creating a vicious cycle.[74]	All countries must get back on track to achieving the SDGs by 2030. Developing countries must be supported by developed countries with at least 4 trillion USD a year through Official Development Assistance (ODA) and under the UN's Addis Ababa Action Agenda. Debt cancellation and fair international tax and trade rules are also needed to increase fiscal space in developing countries and raise domestic funds to achieve the SGDs. Data collection and analysis must be enhanced to support implementation and monitor progress.

Ecosystem protection

The protection of ecosystems includes actions to conserve, manage, and restore terrestrial, freshwater, and marine ecosystems. This involves halting biodiversity loss, enhancing resilience against loss and damage, and the sustainable use of resources to provide human well-being, clean water, and food. Ensuring that ecosystems are protected and healthy helps to prevent and reduce loss and damage (e.g. mangroves reduce the impacts of storm surges).

What we have now	What we need
Humans are exploiting Earth's resources at an alarming rate. We are using the equivalent of 1.6 Earths to maintain our current way of life.[75] One million of the world's estimated 8 million species of plants and animals are threatened with extinction.[76] 75 percent of the Earth's land surface has been significantly altered by human actions.[77]	To ensure that developing countries, Indigenous Peoples and local communities have the resources they need to protect ecosystems while meeting their needs, the finance gap must be closed. Countries must get back on track to meeting the goals of the CBD and the UNCCD, and uphold all other relevant treaties. A legally binding agreement on plastic pollution must be reached[78] and marine protected areas must be established and enforced under the High Seas Treaty.

What we have now	What we need
Ecosystem degradation and biodiversity loss act as risk multipliers that intensify loss and damage by destroying natural buffers and undermining food and water security, amongst other things. This is causing profound economic consequences, particularly in sectors such as agriculture, fisheries, and healthcare, further compounding vulnerability to climate impacts.[79] In 2023, finance for ecosystem protection only reached 220 billion USD,[80] despite projected needs ranging from 571[81] to 700 billion[82] USD each year.	Litigation should be used to increase protection through the targeting of states who fail to prevent harm by regulating harmful activities and corporations. This should leverage the landmark 2024 Advisory Opinion (AO) on Climate Change and International Law from the International Tribunal for the Law of the Sea and the International Court of Justice's (ICJ) AO on the Obligations of States in respect of Climate Change.[83]

Reduction

Due to delayed climate action, it is no longer possible to entirely avoid loss and damage. As a result, loss and damage must be reduced through climate change adaptation and DRR.

Disaster risk reduction

DRR aims to prevent new risk, reduce existing risk and manage residual risk (i.e. left over risk) that could not be prevented or reduced.[84] Key DRR actions include establishing early warning systems, conducting risk mapping, increasing the resilience of infrastructure, emergency planning and drills, stockpiling resources, such as food and medical supplies, and strengthening policy frameworks.

DRR is undertaken for all types of disaster risk and not just those related to climate change. For example, DRR covers risks related to water and weather (e.g. floods), geological events (e.g. volcanic activity), biological risks (e.g. pandemics), technological risks (e.g.nuclear emergencies), amongst other things. Even when DRR actions do not respond directly to climate risks, they can still help to prevent, reduce and manage risks related to loss and damage events.

Through effective DRR, risk reduction can be transformed into an opportunity to address root causes of vulnerability such as poverty and inequality, and to advance sustainable development and justice.[85] Studies show that every dollar invested in risk reduction and prevention can save up to 15 dollars in post-disaster recovery efforts.[86]

What we have now	What we need
Climate change is increasing disaster risk by escalating the frequency, intensity, and duration of climate-related hazards (e.g. floods).[87] It is also increasing vulnerability to hazards through ecosystem degradation, reductions in water and food security and by altering livelihoods.[88] With every increment of warming, risks will become increasingly complex and more difficult to manage, resulting in more loss and damage.[89]	With a sharp rise in climate-related disasters, DRR must increase.[90] Developing countries must be supported by developed countries to meet the targets of the Sendai Framework for Disaster Risk Reduction by 2030. DRR data gaps must be closed to improve implementation and monitoring. DRR strategies must centre on community-based disaster risk management (CBDRM).[91] Communities must receive long term support for CBDRM, including capacity building support and accessible finance.

What we have now	What we need
Despite significant progress on DRR, including a reduction in global average disaster-related mortality by 49 percent from 2005-2014 to 2014-2023,[92] the number of people being affected by disasters worldwide has increased by 71 percent in the same period.[93] Total disaster costs have exceeded 2.3 trillion USD annually and will likely continue to increase.[94] Other challenges include fragmented implementation of DRR within countries, data gaps, and inadequate financing.[95]	A Treaty on the Protection of Persons in the Event of Disasters must be established by the end of 2027 to make DRR a compulsory legal requirement, supported by resources at the scale of the needs for developing countries to implement DRR actions.[96] The voluntary nature of the Sendai Framework's targets must be reviewed at a subsequent meeting of the Global Platform for Disaster Risk Reduction.[97] The follow on from the Sendai Framework must retain a multi-hazard approach and embrace a broader vision of long term resilience building. It must prioritise systemic resilience[98] and risk-informed development that addresses both the root causes of vulnerability and cascading impacts.[99]

Climate change adaptation

Climate change adaptation involves adjusting ecological, social and/or economic systems in response to actual or expected climate impacts with the aim of reducing loss and damage and/or benefiting from climate change (e.g. through longer growing seasons).[100]

Examples of adaptation strategies include building flood defenses, using drought resistant crops, and upgrading infrastructure to withstand extreme weather. Studies show that on average, every 1 USD invested in adaptation has the potential to generate more than 10 USD in benefits over 10 years.[101]

What we have now	What we need
Progress on adaptation under the UNFCCC has been woefully insufficient. Finance flows from developed countries to developing countries totaled just 26 billion USD in 2023[102] and in 2025 only 135 million USD was pledged to the Adaptation Fund.[103] Although developed countries have committed to tripling funding to approximately 120 billion USD per year by 2035 under the Global Goal on Adaptation (GGA), this is less than half of the estimated 365 billion USD developing countries need each year for adaptation.[104] Developing countries also face challenges in developing and implementing NAPs, including a lack of capacity, data, and finance. As of late February 2026, only 75 developing countries had submitted NAPs.[105]	The adaptation finance gap must be closed so that developing countries can both develop and implement the full spectrum of policies, plans and actions outlined in their NAPs. Capacity building, technical assistance, readiness, must also be significantly increased to meet the scale and scope of the needs. Locally led adaptation (LLA) and ecosystem-based adaptation (EbA) approaches must be centred in adaptation strategies. Communities must be resourced and equipped to develop and drive LLA and EbA to avoid maladaptation[106] and ensure more sustainable, equitable, and effective adaptation.[107] This requires simplified direct access to finance, technical assistance and capacity building. Particularly from financial institutions such as the Green Climate Fund (GCF) which have significant barriers to access.[108]

Preparedness

Having systems and plans in place to respond to loss and damage is key to preparing for unavoided and unavoidable loss and damage. Actions to prepare include setting up and maintaining early warning systems and strengthening social protection.[109]

Early warning

Early warning systems are integrated systems designed to provide timely and actionable warnings of impending hazards including extreme events (e.g. cyclones and earthquakes), risks to health (e.g. heatwaves and disease outbreaks), and food security threats (e.g. droughts). Giving just 24 hours' notice of an impending hazardous event can reduce damage by as much as 30 percent.[110] While investing just 800 million USD in early warning systems in developing countries could prevent losses of 3 to 16 billion USD annually.[111]

What we have now	What we need
Just 119 countries are covered by multi-hazard early warning systems (MHEWS).[112] Developing countries —particularly the Least Developed Countries (LDCs) and Small Island Developing States (SIDS)— have the lowest level of coverage, with only 52 percent of LDCs and 43 percent of SIDS covered.[113] Challenges include finance gaps, the need to innovate new technology,[114] ensuring long term sustainability of systems, and the complexity of evolving climate risks.[115] Significant systematic observation data gaps also need to be closed, particularly in Africa, Asia and Latin America.[116] A persistent "digital divide" is limiting the reach of new technologies in developing countries.[117] Much of the finance being provided to developing countries for MHEWS comes in the form of loans.[118] This risks exacerbating existing debt crises.	Universal coverage of MHEWS must be achieved by the end of 2027 under the Early Warning for All (EW4All) initiative.[119] This requires an investment of at least 3.1 billion USD.[120] The Climate Risk Early Warning Systems (CREWS) requires 78.8 million USD in funding just to address the immediate needs of LDCs and SIDS and significantly scaled up funding thereafter.[121] Sustained funding is also needed for the upkeep of MHEWS in developing countries. Developed countries must close this finance gap.

Social protection

Social protection consists of policies, programs, and actions, designed to reduce vulnerability by preventing poverty, increasing social inclusion, and reducing inequality across the lifecycle of a person.[122,123] It provides safety nets for people who cannot support themselves or face additional needs during a crisis,[124,125] by ensuring access to essential services (e.g. health care and education) and/or income security.[126]

When combined with early warning systems and anticipatory action, social protection can enhance capacity to cope with loss and damage by providing support in advance.[127] In the aftermath of a loss and damage event, it can help households get back on their feet. In the long run, social protection can contribute to raising adaptive capacities —including those of future generations— through positive impacts on sustainable development and livelihood diversification.[128]

Studies show that every USD invested in social protection can increase Gross Domestic Product (GDP) on average by 1.84 times within two and a half years.[129] For local economies the benefits are even greater. For every dollar transferred to low income families there is an estimated multiplier effect of 2.50 USD in the local economy.[130]

What we have now	What we need
3.8 billion people worldwide still lack any kind of safety net.[131] This is particularly acute in the 50 most climate-vulnerable countries where 2.1 billion people lack any form of social protection.[132] Estimates show that for low- and middle-income countries, the financing gap to achieve universal coverage of social protection floors (i.e. nationally defined sets of basic social security guarantees) is 3.3 percent of their GDP annually.[133] However, for low-income countries alone, this gap is an overwhelming 52.3 percent of their GDP[134] —equivalent to 308.5 billion USD a year.	To achieve universal social protection coverage in all developing countries will require their governments to increase spending by an estimated 1.4 trillion USD annually.[135] Developing countries must not be left to bear this cost alone. Developed countries must mobilise finance as part of their commitments to support sustainable development in developing countries. In addition, developing counties' fiscal space must be increased through a combination of debt cancellation, and reforms to international tax and trade rules.[136,137] Multilateral development banks (MDBs) and relevant organisations such as the International Labour Organization must also scale up grant based finance and support for social protection mechanisms,[138] particularly to ensure social protection coverage in the aftermath of a loss and damage event when fiscal space is limited.[139] Diagnostic tools such as the Anticipatory Social Protection Index for Resilience can help developing countries assess how well a country's social protection systems can deliver early action against climate risks.[140] Yet, in addition to finance, developing countries will also need technical assistance and capacity building support to address the gaps identified.

Anticipatory action

Acting ahead of a loss and damage event helps to prevent and reduce loss and damage.[141] It also preserves the dignity of those affected[142] and protects development gains by enhancing resilience.[143] Examples of anticipatory action include providing cash transfers to vulnerable households, micro-insurance programs (e.g. the R4 Rural Resilience Initiative (R4)), setting up and/or reinforcing temporary shelters, safeguarding livelihoods (e.g. by moving livestock to safety), and/or distributing emergency water, food, and other essential supplies.[144]

Anticipatory action is informed by impact-based forecasting, which merges hazard forecasts (e.g. rainfall and disease data) with vulnerability data (e.g. social and environmental factors) to predict

specific impacts before they occur.[145] Effective implementation of anticipatory action ideally requires three elements: a pre-agreed trigger, pre-agreed activities, and pre-arranged financing.[146]

What we have now	What we need
Despite pre-arranged finance reaching a record 9.4 billion USD in 2024,[147] emerging trends suggest there is a significant finance gap,[148] particularly in low-income countries.[149] Of the pre-arranged finance that is flowing, the majority is provided as loans, risking exacerbating existing debt crises in developing countries.[150] Instruments, such as catastrophe bonds (Cat Bonds) and global and regional risk pools, require developing countries to pay premiums at the risk of receiving no payout at all when strict parametric triggers (e.g. wind speed) are not reached.[151] The World Bank's catastrophe deferred drawdown option (Cat DDO) and other instruments may come with conditionalities (e.g. implementing DRR policy actions) that may not align with country priorities.[152] Other challenges include fragmented data and weak forecasting systems, the technical and timing constraints of extremely short windows for action, and the need for enhanced coordination between actors.[153]	Grant based pre-arranged finance at the scale of the needs, must be available to support anticipatory action in every developing country. Developed countries must ensure the International Federation of Red Cross and Red Crescent Societies's (IFRC) Disaster Response Emergency Fund (DREF) is funded to at least 253 million USD by 2030[154] and the UN's CERF exceeds its 1 billion USD a year funding target.[155] Cat Bonds and risk pool premiums must be covered by developed countries, increased tax revenues, and innovative sources. Micro-insurance programs must be scaled up, including under the Global Shield Against Climate Risk, R4 Rural Resilience Initiative, and other initiatives, to which developed countries must significantly increase funding. All micro-insurance must be grant based to avoid increasing debt burdens. Data, forecasting, and early warning gaps must be closed. Communities must drive planning and implementation of anticipatory action. Coordination between relevant actors must increase.

Immediate response

Immediate response addresses the urgent needs of affected populations. It is essential to prevent and reduce further loss and damage and to lay the groundwork for mid- and long-term recovery.

Humanitarian response

Humanitarian response provides rapid, life-saving assistance—such as food, shelter, and emergency medical care—during or immediately after a loss and damage event. Only in specific circumstances, such as in long-lasting, complex emergencies, does humanitarian action contribute to and complement work to address loss and damage.[156]

What we have now	What we need
In 2026, 239 million people are projected to need humanitarian assistance requiring 33 billion USD.[157] Yet, in 2024 —the most recent year for which data is available— just 21.2 billion USD was received, when 49.6 billion USD was needed.[158] Recognising that the humanitarian system is facing a profound crisis of legitimacy, funding, and morale, a Humanitarian Reset was launched in 2025.[159] Focusing on a hyper-prioritisation of relief efforts, the Reset has been criticised for being a disguised response to funding cuts rather than a genuine, transformative shift, that moves from mere reform to a radical restructuring.[160]	The humanitarian finance gap must be closed. Developed countries must take the lead in providing finance through ODA which must exceed the target of 0.7 percent of gross national income. This must include capitalising the DREF, CERF and START Fund, and ensuring the UN agencies and non-governmental organisations (NGO) that deliver humanitarian assistance have consistent funding at the scale of the needs. The humanitarian system must be transformed to be locally led and internationally supported. One that empowers local actors with sustained support, centring them in decision making to ensure that programming is designed around the priorities of affected populations. This must include strengthened coordination and collaboration across the humanitarian, development, and peacebuilding nexus, as well as between humanitarian actors and developing country governments.[161] [162]

Mid term recovery and reconstruction

In the first few weeks after a loss and damage event, mid-term recovery and reconstruction will begin. This can be a complex process and involves a vast range of activities. Just a few examples include: loss and damage needs assessments, the installation of temporary infrastructure (e.g. water, electricity) and shelter (e.g. tents), mental health care, livelihood programs, family reunification, mourning, and remembrance.

Finance for recovery and reconstruction

After a loss and damage event, developing countries need additional finance to undertake recovery and reconstruction without having to divert funds from essential services such as education and health care. A critical aspect of recovery is community led loss and damage response, an approach that ensures affected populations directly manage, design, and implement recovery efforts.[163]

What we have now	What we need
The vast majority of finance available to developing countries from the IMF, World Bank and other international financial institutions (IFIs) and MDBs and international financial institutions, is provided in the form of loans. These loans often have market-based, non-concessional interest rates, and high transaction costs to access. As a result they can contribute to debt crises in developing countries. Even if such loans were appropriate to respond to loss and damage, the scale of these financial instruments is often only in the millions of USD when loss and damage events frequently cost developing countries tens of billions of USD.[164] [165] In 2025, the FRLD launched its start up phase —the Barbados Implementation Modalities (BIM)— under which 250 million USD has been allocated to funding requests between 5-20 million USD.[166] However, this is less than 0.06 percent of the at least 400 billion USD the FRLD will need to disburse annually by 2035.[167] This massive funding gap is caused by a lack of contributions from developed countries, who bear historical responsibility for climate change and its impacts. To date pledges total just 817.01 million USD,[168] of which just 448.92 million USD has been paid into the Fund's trust.[169] Under the BIM, the FRLD cannot disburse funds quickly nor directly to communities. In addition, work is still underway to fully operationalise the long term policies of the Fund.	Instead of loans with conditionalities, the IMF, World Bank and other IFIs and MDBs must provide massively scaled up grant based finance through instruments that are easy to access. The Board of the FRLD must develop a resource mobilisation strategy that will deliver at least 400 billion USD a year by 2035 and at least 50 billion USD a year in the first replenishment period (2027-2031).[170] The Board of the FRLD must establish a small grants policy that guarantees simplified direct access to communities through a dedicated window. The Board must also ensure the Fund can disburse money quickly so there is no gap between immediate response and mid-term recovery and reconstruction.

Long-term recovery and resilience building

Long term recovery involves a vast range of activities that are intended to prevent and reduce loss and damage happening when future disasters strike. These activities include building back better, remedy and reparation, reforming international tax, trade, and debt systems as well as the international financial architecture.

Building back better

Building back better is a post-disaster strategy focused on reducing future vulnerability and fostering resilience. It focuses on upgrading infrastructure and implementing stricter, more sustainable, and inclusive building standards. Better land-use planning and addressing social, economic, and environmental vulnerabilities are also critical components of building back better. [171]

Research indicates that when countries rebuild stronger, faster, and more inclusively after a disaster, they can reduce the impact on livelihoods and well-being by as much as 31 percent. Building back better has the potential to reduce global average losses by 173 billion USD per year.[172]

What we have now	What we need
Massive funding gaps mean that recovery and reconstruction is slow, incomplete, and can both create new risks and exacerbate existing inequalities.[173] This will lead to more loss and damage when future disasters strike.	Developing countries must be able to build back better in a way that not only recovers lost development, but also advances the achievement of the SDGs.[174] This must include addressing root causes of vulnerability such as marginalisation and poverty, and advance the protection and fulfillment of human rights. This will require finance and support at the scale of the needs. When building back better, the question of who decides what is "better" and for whom is key.[175] Affected communities, and particularly marginalised groups, must be centred in planning and decision making processes. This is critical to ensure that recovery efforts reach all segments of the population.[176]

Remedy and reparation

The human right to remedy applies to harm suffered in the form of loss and damage from climate change. Under international law, those whose human rights are violated have a right to remedy, including full reparation for climate-related harms.[177]

What we have now	What we need
The ICJ's AO on the Obligations of States in respect of Climate Change and the Inter-American Court of Human Rights' (IACHR) AO on the Climate Emergency and Human Rights have re-affirmed the obligations of States to provide remedy and reparations for loss and damage. Over 3,000 climate litigation cases have been filed across nearly 60 countries to hold governments and corporations accountable.[178] Yet States and corporations still refuse to abide by international law.	States and affected communities must receive reparations where remedy has not been forthcoming or is not satisfactory. The ICJ AO must be operationalised via an UN General Assembly (UNGA) resolution that goes beyond just welcoming the opinion and includes the establishment of a Loss and Damage Register.[179] Failing that, the register must be established independently through an UNGA resolution.

What we have now	What we need
Developed countries, particularly, are not meeting their legal obligations to prevent loss and damage by rapidly reducing emissions. Nor are they providing developing countries with the finance and other forms of support they need to remedy loss and damage.[180] The UNFCCC has also failed to uphold the right to remedy, including by setting up a FRLD that is not equipped to deliver remedy for climate harm. While all States are failing, to varying degrees, to fully uphold human rights due to political, economic, and/or legal failures.[181]	Climate litigation must continue to increase ambition under the UNFCCC and compliance with the obligation of developed countries to provide climate finance and other forms of support to developing countries.[182] The UNFCCC's Loss and Damage mechanisms and bodies must be strengthened to advance the fulfillment of States' duties related to the right to remedy. Climate reparation efforts must be aligned with other reparations efforts, including those addressing colonialism, Indigenous dispossession and transatlantic slavery, led by the African Union[183], the CARICOM Reparations Commission and others. This is key to bringing about the transformative changes needed to end the perpetuation of inequality and harm rooted in colonial exploitation, extraction, and racial capitalism.

Debt reform

Debt is accumulated by developing countries through borrowing from foreign lenders, IFIs and MBDs, such as the IMF and World Bank, as well as private investors.

What we have now	What we need
Developing countries are trapped in a vicious cycle where they are spending more on debt repayments than on healthcare[184] and climate action.[185] In 2024 alone, developing countries' net interest payments on public debt were 921 billion USD,[186] and in 2025, 38 low income countries were at a high risk of debt distress, and 13 faced debt distress.[187]	A United Nations Framework Convention on Sovereign Debt (UN Debt Convention) must be established.[188] One that will prevent debt crises from occurring and facilitate debt cancellation through a Multilateral Sovereign Debt Resolution Mechanism.[189] This will increase developing countries' fiscal space, enabling them to advance sustainable development and respond to loss and damage.

What we have now	What we need
Existing debt treatment frameworks such as the G20 Common Framework for Debt Treatments and false solutions such as debt for climate and debt for nature swaps[190] have failed to prevent or resolve debt crises.[191] As a result, developing countries lack the fiscal space they need to respond to loss and damage and are at risk of debt crises occurring in the aftermath of a loss and damage event.[192]	In the meantime, developing countries should push creditors to agree to debt cancellation, while ensuring that all new loan agreements contain climate resilient debt clauses that enable debt payments to be paused if they face a loss and damage event. At the same time, to accelerate debt cancellation, creditor countries should introduce new laws that would ensure that private creditors participate in debt restructuring deals on fair terms. This is needed to undermine their ability to delay negotiations, seek maximum payment or threaten to take countries to court for full payment.[193] The UK and New York are key jurisdictions for this as nearly all of the external private debt of developing countries is governed under English[194] and New York law.[195]

Tax reform

Taxation is a fundamental mechanism for promoting economic equity, raising money for climate action and sustainable development, and disincentivising harmful economic activities.

What we have now	What we need
Tax-related illicit financial flows —including tax evasion and avoidance— are costing countries around the world an estimated 492 billion USD[196] every year. Of this, 347.6 billion USD is lost to multinational corporations shifting profit offshore to underpay tax while 144.8 billion USD is lost to wealthy individuals hiding their assets offshore.[197] Developing countries, which have historically had little to no say on global tax rules, are disproportionately affected by tax evasion and avoidance.[198,199,200,201] In 2023 lower income countries' tax losses were 47 billion USD — equivalent to 49 percent of their public health budgets.[202] Developed countries' dominance in setting international tax rules has led to a system that deepens inequalities between rich and poor nations.[203] The Organisation for Economic Co-operation and Development (OECD), which has led tax reform to date, is highly criticised for heavily favouring developed countries and multinational corporations.[204,205]	A fit for purpose UN Tax Convention must be operationalised that reclaims trillions of dollars in tax and ensures all countries have an equal voice in shaping international tax rules.[206] It must reallocate international taxing rights, combat illicit financial flows and tax abuse, put in place an effective global minimum corporate tax, and progressive global taxes on wealth and fossil fuels.[207,208] The Convention must also provide the rules for countries to put in place domestic environmental and climate taxes,[209] while ensuring that money raised through taxation contributes to sustainable development and responding to loss and damage.

Trade reform

Trade is governed by a complex framework of international rules, primarily managed by the World Trade Organization (WTO), alongside bilateral agreements, regional treaties, and national legislation.

What we have now	What we need
Current trade rules have locked developing countries into underdevelopment through exploitative economic relationships with developed countries.[210] This relationship both increases the vulnerability of developing countries to loss and damage and reduces their ability to respond to it.	Trade rules must be reformed to enable developing countries to increase their resilience to loss and damage and enhance response. This includes reforming rules that undermine technology transfer, increase food insecurity and/or commodity export dependence, facilitate capital flight, and exert pressure to privatise public services. It also requires reforming trade rules to enable developing countries to move up global value chains (e.g. by refining raw materials in country)[211] and benefit from digital trade in an equitable manner (e.g. by implementing digital service taxes on big tech companies such as Meta and Google).[212,213]
Existing treaties and agreements create major barriers to effective responses to loss and damage. For example, trade rules on intellectual property undermine access to knowledge and technology transfer. Trade rules on stockpiling stop developing countries from building up reserves for anticipatory action and immediate response. While the ISDS mechanism is restricting governments from enacting climate policies and regulating and taxing polluting companies.[214]	The ISDS mechanism must be abolished so that all countries can take climate action and impose taxes on polluting companies without the fear of being sued. To be effective, trade reform must be accompanied by reparations, debt cancellation,[215] and the provision of climate finance.

Reform of the international financial architecture

The IMF and the World Bank are key pieces of international financial architecture, alongside other IFIs and MDBs such as the Asian Development Bank and African Development Bank.

What we have now	What we need
The IMF and World Bank are failing to disincentivise climate and planet wrecking activities.[216] They are also promoting policies that enlarge debt burdens, reduce fiscal space, and increase dependence on fossil fuels[217] and the extraction of other natural resources.[218] This is increasing vulnerability to loss and damage in developing countries.	The IMF and World Bank must be profoundly transformed to ensure a more responsive, democratic, accountable, and sustainable development oriented international finance system.[219] There must be yearly allocations of hundreds of billions of SDRs to developing countries to support sustainable development and loss and damage responses.[220]
Despite some reforms, including to the voting power of countries', profound democratic deficits, power asymmetries and governance characterised by colonial continuity continue to plague the Bretton Woods institutions.[221,222] The World Bank's Evolution Roadmap and the Bridgetown Initiative both aim to reform these institutions but do not go far enough. Even though the equivalent of approximately 650 billion USD in SDRs[223] was allocated for response to the COVID-19 pandemic, SDRs are not being used to tackle climate change. SDRs in their current form are also ill equipped to support developing countries. Reasons include developing countries being allocated fewer SDRs than developed countries[224] and SDRs being channelled as loans rather than grants.[225,226]	SDRs must be allocated based on countries' needs, not their IMF quotas. A system must be created to allow developed countries to re-channel SDRs to developing countries.[227] SDRs must also be able to be channelled through MDBs and funds —including the FRLD— and disbursed as grants not loans.

Cross cutting issues

Responding to loss and damage also requires addressing cross-cutting issues such as strengthening resilience in health, food and education systems, revitalising livelihoods, addressing challenges related to human mobility, and protecting culture, heritage, knowledge, and ways of being.

Human mobility

Loss and damage from climate change is driving human mobility—including displacement, migration and planned relocation.[228] Over the past 10 years, weather-related disasters alone have caused approximately 250 million internal displacements.[229] As emissions grow, displacement and other forms of involuntary mobility will become increasingly frequent and consequential to communities affected by climate change.[230]

What we have now	What we need
Despite the adoption of the UN's Global Compact for Safe, Orderly and Regular Migration (GCM), few regional and bilateral mobility frameworks are in place that incorporate climate change. While the number of countries with plans in place to manage displacement and planned relocation is growing, finance and support is inadequate.[231]	Developing countries must receive scaled up finance, technical and capacity building support to put in place pathways, policies, and plans to ensure equitable, safe, and dignified human mobility. This must include sustained support to participate in Regional Consultative Processes (RCPs) and implement the International Organization for Migration's (IOM) Migration Governance Framework (MiGOF) to establish regional and bilateral mobility frameworks. Support is also needed to develop and implement community-driven guidelines and policies on planned relocation and establish related national financial mechanisms. Durable solution approaches must be employed to comprehensively avert, minimise and address displacement.[232] Improved data collection and analysis must also be supported. The Executive Committee (ExCom) of the Warsaw International Mechanism for Loss and Damage's (WIM) Task Force on Displacement (TFD), must increase understanding of loss and damage associated with climate induced migration, displacement, and planned relocation, and produce technical expert guidance on the quantification of related costs.

Health

The climate crisis is a health crisis.[233] Loss and damage to health is taking place in a myriad of ways. This includes deaths and illness from increasingly frequent extreme weather events and the disruption of food systems, and diseases such as cholera, malaria, and dengue fever. Loss and damage to health also includes mental health impacts such as post-traumatic stress disorder, anxiety, chronic stress, and depression.[234]

What we have now	What we need
The health impacts of climate change are worsening, with millions of people dying needlessly each year due to fossil fuel dependence, growing emissions, and failure to adequately adapt.[235] Costs could exceed 21 trillion USD by 2050 in low- and middle-income countries alone.[236] Globally, many health systems are underprepared and lack resilience to climate change, with 11 billion USD needed each year to strengthen the resilience of health systems in developing countries alone.[237] One in twelve hospitals worldwide face the risk of total shutdown due to extreme weather events if emissions are not reduced.[238] The reduction of ODA[239] has created gaps in health coverage by leaving international NGOs unable to deliver life saving medical assistance.[240] Withdrawal of 1 billion USD of funding by the United States has severely crippled the World Health Organization's (WHO) health programs, forcing the closure of health facilities in over 70 countries.[241] Limited capacity, finance, data, coordination, and technical constraints in developing countries continue to impact the preparation of Health National Adaptation Plans (HNAPs).[242]	This finance gap must be closed to enable resilient health systems in developing countries and scaled up emergency health responses in the aftermath of a loss and damage event. Developing countries must receive scaled up technical assistance, finance and capacity building to prepare and implement HNAPs. The WHO's Global Action Plan on Climate Change and Health 2025–2028 must address health risks from loss and damage and drive up ambition to scale up finance and support from developed countries to developing countries.

Food

Agrifood systems are both a major driver of climate change —responsible for over one-third of global greenhouse gas emissions— and highly vulnerable to its impacts.[243] 84 percent of the world's 570 million farms are smallholdings which produce around a third of food globally.[244] Of these, small holder farmers in developing countries[245] —particularly women—[246] are most acutely affected by climate impacts.

What we have now	What we need
Each year hundreds of billions of dollars' worth of crops and livestock are lost due to loss and damage events. This is undermining hard-won development gains and devastating livelihoods, pushing people into food insecurity, hunger, and poverty.[247] In 2024 alone, between 7.8 and 8.8 percent of the global population faced hunger[248] and as many as 2.3 billion people across the world are estimated to have been moderately or severely food insecure.[249] Approximately 80 percent of the global population most at risk from climate change induced crop failures and hunger are in Sub-Saharan Africa, South Asia, and Southeast Asia.[250] Low-income countries have also disproportionately borne the brunt of recent food price increases as a result of, amongst other things, the COVID-19 pandemic and escalating conflict.[251] Global challenges that are likely to further undermine food and nutrition security.[252]	To reduce food insecurity, the resilience of agrifood systems must be increased at the same time as transitioning to sustainable practices to reduce emissions. To do so developing countries will need between 300-400 billion USD per year.[253] Under the UNFCCC, the Koronivia Joint Work on Agriculture must prioritise a transition to humane and agroecological food systems that protect people, animals, and our planet whilst guaranteeing food security and sovereignty.[254] At the same time, finance and support to address unavoidable loss and damage to agrifood systems, with a focus on small holder farmers in developing countries, will need to be scaled up. This includes ensuring that the UN's Food and Agriculture Organization and World Food Programme, as well as international and local NGOs (e.g. World Vision) have the finance they need to assist people most at risk of famine.

Livelihoods

Climate change is profoundly impacting livelihoods across the world. It does so by reducing agricultural yields, lowering labor productivity, damaging ecosystems that people depend on for livelihoods, destroying places of work, and forcing people to move.[255] In 2024, 640 billion potential labour hours were lost due to heat exposure alone—with productivity losses equivalent to 1.09 trillion USD.[256]

What we have now	What we need
Loss and damage to livelihoods is amplifying existing inequalities and undermining sustainable development.[257] Yet, progress on livelihood-related SDGs, particularly SDG 1 (No Poverty) and SDG 8 (Decent Work and Economic Growth), are at a near standstill, with extreme poverty affecting about 9 percent of the global population.[258] Without a significant acceleration in efforts, 8.9 percent of the global population will still be living in extreme poverty by 2030.[259]	To achieve decent work for all and respond to loss and damage to livelihoods in developing countries, significantly scaled up finance and other forms of support is needed.[260] This includes enabling developing country governments to: undertake a just transition, implement re-skilling programs, enhanced social protection systems, strengthen labour rights enforcement, and investments in sustainable and digital economy initiatives. [261]

Education

Education is a critical driver of development. It does so by boosting economic growth, reducing poverty, and empowering individuals. Every 1 USD spent on education potentially generates up to 15 USD in economic growth.[262]

What have now	What do we need
Climate change is severely disrupting education globally, impacting millions of children each year.[263] [264] In 2024 alone, loss and damage events impacted over 242 million students in 85 countries or territories[265] —74 percent of whom were in low- and lower-middle-income countries.[266] This risks long-term societal and economic crises creating a cycle of further loss and damage as a result of reduced lifetime earnings, increased inequality, and diminished national productivity.[267] For example, as households adopt erosive coping strategies[268] such as pulling children —particularly girls— out of school, and forcing girls into early marriage.[269] In 2021, less than 1.5 percent of climate finance went to education.[270] As a result of ODA cuts, education funding now faces a 3.2 billion USD decline in 2026.[271] This will further compound the existing financial, institutional capacity, and technical challenges[272] that developing countries face when implementing international frameworks for climate education such as the United Nations Educational, Scientific and Cultural Organization's (UNESCO) Education for Sustainable Development (ESD) framework.[273] Challenges that they also face when implementing education infrastructure resilience frameworks such as the Comprehensive School Safety Framework (CSSF).[274]	Finance and support must be scaled up to enable developing countries to enhance the resilience of their education system and its infrastructure. This includes effectively implementing the CSSF. UN and NGO actors, including the United Nations Children's Fund (UNICEF), Education Cannot Wait, and the Global Partnership for Education Fund, must have the funding they need to protect children from loss and damage to education and address impacts that could not be avoided. Finance and support must also be scaled up to ensure that education systems in developing countries can empower young people to drive loss and damage responses. Including through the implementation of UNESCO's ESD framework and Greening Education Partnership, and the UNFCCC's Action for Climate Empowerment agenda.

Culture, heritage, knowledge, ways of being

Climate change is impacting culture, heritage, local and Indigenous knowledge and ways of being in a myriad of ways. The UNFCCC identifies loss and damage to cultural heritage, Indigenous knowledge, and societal and cultural identity as three categories of non-economic loss and damage (NELD).[275] However, researchers have identified more than one thousand ways that climate-related intangible harm is being experienced around the world.[276]

What have now	What we need
80 percent of UNESCO World Heritage Sites are currently experiencing significant loss and damage.[277] A lack of funding for heritage preservation is a major issue.[278] Developing countries were only able to spend 3.86 USD per capita on heritage preservation in the period 2019–2023.[279] Indigenous Knowledge holders are receiving less than 1 percent of climate finance.[280] Cultural heritage is also frequently overlooked in climate adaptation, making up less than 1 percent of reported actions in countries' Biennial Transparency Reports (BTRs). [281] A lack of legal frameworks and operational strategies to carry out adequate management of cultural and natural heritage sites is also lacking at the local level.[282]	Developing countries require guidance from technical experts on including culture and heritage into NAPs and NDCs. This should be supported by increased finance, technical assistance, and capacity building, for the development and implementation of plans. Indigenous Peoples and local communities must drive all planning and implementation related to the protection and safeguarding of culture, heritage, ways of being, and knowledge. To do so, they must have easy access to finance and support to respond to context specific NELD. The UNFCCC's Local Communities and Indigenous Peoples Platform (LCIPP), must be supported to increase the promotion of the protection of traditional knowledge, innovations, and cultural practices. UNESCO must be adequately funded to lead the response to loss and damage to cultural heritage under the 1972 World Heritage Convention and the Convention for the Safeguarding of the Intangible Cultural Heritage. These efforts must be supported by a fully capitalised Heritage Emergency Fund that enables rapid response to protect cultural heritage. UNESCO must reform its approach to centre Indigenous Peoples rights and knowledge and address its Global North bias.[283] The WIM ExCom's Expert Group on Non-Economic Losses, must increase understanding of NELD and produce guidance on its economic quantification.

4

Unpacking the glue that holds the mosaic together

In this chapter we unpack the four key ingredients of the "glue" that holds the mosaic together.

Coordination, coherence, and complementarity

Coordination, coherence and complementarity at the international, regional, national, and local levels are critical to ensuring the effective delivery of loss and damage responses. They are the "glue" that brings the pieces and stakeholders within the mosaic together, helping to avoid duplication and fragmentation, and ensuring that no one is left behind.

What we have now	What we need
At the international level, the UN Office for the Coordination of Humanitarian Affairs (OCHA) coordinates global humanitarian response. In addition, the FRLD convenes an annual High Level Dialogue on coordination and complementarity, and the WIM is mandated to strengthen dialogue, coordination, coherence, and synergies, among relevant stakeholders. Yet, no dedicated mechanism exists to coordinate loss and damage response in real time.	A proposal to establish a UN Climate Council under the UNGA has been put forward and should be carefully considered taking into account possible risks related to diverting political attention from the UNFCCC and limited resources. Were a UN Climate Council to be established, it should be capable of four core functions:[284] 1. Providing high-level political direction to catalyse and support ambition and deliver authoritative policy advice;[285] 2. Strengthening accountability; 3. Enhancing coordination among key actors, processes, and mechanisms; and 4. Anticipating risks (e.g. tipping points) to enable early responses.[286] At the same time, loss and damage must be integrated into existing frameworks and plans such as national DRR strategies, national development plans, NDCs, NAPs, and NBSAPs.[287]

Systematic observation, data, science, knowledge, and lived experience

Systematic observation, data, the best available science, the knowledge of Indigenous Peoples and local communities, and the lived experiences of affected countries and populations, are fundamental to effective loss and damage responses. They act as the "glue" that transforms policy goals into evidence-informed, actionable strategies.

What we have now	What we need
Significant systematic observation and data collection and analysis gaps exist in developing countries, especially in Africa where surface weather station density is far below global standards, reducing forecast accuracy not only locally but globally.[288] In LDCs and SIDS nearly 90 percent of basic weather and climate data is not being collected.[289] The World Meteorological Organization (WMO), Global Climate Observing System (GCOS), and Systematic Observations Financing Facility (SOFF) all face major funding challenges.[290,291,292] The IPCC faces political issues —including developed countries' objection to the inclusion of the term "loss and damage"— leading to struggles over wording and the potential politicisation of science. This has had a significant impact on the inclusion of loss and damage in IPCC reports.[293] The United Nations Environment Programme (UNEP) faces significant funding challenges[294] and has no mandate to produce a Loss and Damage Gap Report. However, a regular report on Loss and Damage was mandated in 2025 under the third review of the WIM.[295] The knowledge of Indigenous Peoples and local communities and the lived experiences of affected countries and populations is frequently excluded from planning and implementation. In addition, the WIM ExCom is not producing the technical expert guidance needed on key issues such as the quantification of economic and non economic loss and damage.	The WMO, GCOS, and SOFF must receive sustained funding at the scale of the needs to close data and systematic observation gaps in developing countries.[296] New satellite technologies and powerful advances in data processing and artificial intelligence must be harnessed to reshape systematic observation.[297] The IPCC's Seventh Assessment Report must include significant focus on loss and damage and reflect the projected costs of different emissions trajectories. The regular report on Loss and Damage mandated at COP 30, must quantify the loss and damage needs of developing countries. It must also capture the knowledge and experiences of Indigenous Peoples and local communities as well as human rights aligned best practices and gender responsive responses to loss and damage. UNEP must be fully funded and receive a mandate to produce a Loss and Damage Gap Report. Climate attribution science must be scaled up and fully funded to provide real-time analysis of extreme weather events, inform loss and damage response strategies, policy-making, and legal litigation. It is a key tool for holding major emitters accountable.[298] The WIM ExCom and its expert groups must be supported by a dedicated budget of at least 14.2 million USD a year.[299] This is key to enabling expert groups to deliver knowledge products and activities faster and have more capacity to provide support to developing countries and communities.[300] The ExCom's expert group on action and support must significantly scale up activities, including providing support to developing countries. The knowledge and experiences of Indigenous Peoples and local communities must drive decision making. They provide crucial, context-specific observations that complement systematic observation, data, and science. They also innovate holistic, context specific solutions rooted in long-term ecological stewardship.

Capacity building, readiness, technical assistance, knowledge, and technology transfer

Capacity building, readiness, technical assistance, knowledge and technology transfer are the "glue" needed to fill the gap between ambitious policy goals and on-the-ground implementation.

What we have now	What we need
The readiness support provided by the GCF's Readiness and Preparatory Support Programme (RPSP)[301] and the technical assistance provided by the Santiago Network, Climate Technology Centre and Network (CTCN), Global Facility for Disaster Reduction and Recovery (GFDRR), and UN agencies, is not addressing the scope and scale of the needs of developing countries. Nor does the capacity building support currently provided. Developing countries also face significant barriers to accessing the knowledge and technology they need to prevent, reduce, and address loss and damage (e.g. renewable energy technologies).	The Country Support System (CSS) being operationalised by the FRLD must provide readiness support valued at least 260.206 million USD a year to developing countries.[302] The CSS must be complementary to the Santiago Network. The RPSP, Santiago Network, the CTCN, GFDRR, and all other readiness, capacity building, and technical assistance providers, must be funded to enable them to address the scope and scale of the needs of developing countries. The Santiago Network needs at least 129.2 million USD a year to catalyse the technical assistance needed by developing countries and communities.[303] Trade rules on intellectual property must be reformed to ensure that developing countries have access to the knowledge and technologies they need for climate action, DRR and sustainable development.

Accountability, reporting, principles, norms, human rights, and international law

Accountability, reporting, principles, and norms act as "glue" that binds contributors (e.g. developed countries and MDBs) and implementing actors (e.g. governments, UN Agencies, and NGOs) to their obligations to uphold international law and ensure transparency.

What we have now	What we need
States are failing to uphold human rights and other obligations under international law. Developed countries in particular are breaking international norms and undermining the rule of law. Developing countries lack the support they need to develop and implement nationally determined policies, plans and actions. They also lack capacity and data needed to report progress and the challenges they face when implementing these policies, plans, and actions.	All States must be held to account for violating international law. The AOs from the ICJ and IACHR must be operationalised. Litigation must continue to drive ambition across policy agendas by holding States and corporations accountable.

What we have now	What we need
	Developing countries must receive the support they need to make plans and report their needs, priorities, and efforts. This is key to enabling them to report on, amongst other things, progress towards achieving the SDGs; the targets of the Sendai Framework, CBD and UNCCD; and via the Global Stocktake of the Paris Agreement. This is critical to ensure that reporting and planning creates a continuous cycle of improvement that drives reform across all levels of the mosaic.

5

Addressing the finance elephant in the mosaic

It is clear that the biggest gap in the mosaic of solutions is new and additional grant based finance that is adequate and sustainable to address the full scale and scope of the needs in developing countries and the frontline communities within them. In this chapter, we unpack the gap between available finance and the estimated needs of developing countries. Crucially, we also indicate how this gap can be closed.

Available finance vs needs

Table 1 compares what finance is currently available and what finance is needed for key pieces of the mosaic of solutions. Where indicated needs are global, all other needs are those of developing countries. In each case we present the most recent data. In some cases a range is presented spanning the highest and lowest estimations. When looking at the total available finance versus the needs, we find that only hundreds of billions of USD were available in recent years, when tens of trillions of USD are needed annually.

Table 1: **Finance flows versus projected needs.**

SOLUTION	FINANCE AVAILABLE	FINANCE NEEDED
Sustainable Development	435 billion USD in 2023[304]	4 trillion USD per year[305]
Ecosystem Protection and Restoration (global need)	220 billion USD in 2023[306]	571 billion USD[307] to 700 billion USD each year [308]
Climate Change Mitigation	208 billion USD in the year 2023[309]	3.9 trillion USD per year by 2030 [310] to 4.725 trillion USD per year[311]
Climate Change Adaptation	26 billion USD in the year 2023[312]	365 billion USD per year in 2035 [313] to 1.44 trillion USD per year[314]
Loss and Damage	613.43 million USD in 2025[315]	724.43 billion USD a year[316]
Humanitarian Response (global need)	21.2 billion USD in 2024[317]	49.6 billion USD in 2024[318]

Filling the finance gap

Despite the significant scale of the finance needed, past precedents show that money is available if there is political will to mobilise it. The IMF allocated SDRs worth approximately 650 billion USD[319] during the COVID-19 pandemic.[320] The Emergency Economic Stabilisation Act allowed the US Treasury to buy up to 700 billion USD in mortgage backed securities and other assets during the 2008 economic crisis.[321]

In the short term, innovative sources and SDRs must be mobilised to start to fill the most critical gaps in the mosaic:

Innovative sources

Innovative sources include instruments such as a Climate Damages Tax (CDT), wealth taxes, taxes on maritime shipping, levies on business class flights, aviation fuel and plastic polymers, and the phase out of fossil fuel subsidies.

Developed countries must take the lead to mobilise innovative sources of finance to meet their obligations. Doing so will enable them to provide new and additional, public, grant based finance to developing countries, finance domestic climate action, and address the cost of living crisis. When leveraging innovative sources, developed countries must adhere to the do no harm, pro poor and polluter pays principles, to ensure that developing countries and vulnerable populations are not adversely affected by levies and taxes.

In a previous study, we identified that developed countries can mobilise at least 4.8 trillion USD each year from innovative sources to meet their obligations for Loss and Damage finance.[322] Another study from Oil Change International shows that they can mobilise at least 6.6 trillion USD a year for climate finance. Enabling them to far surpass the at least 300 billion USD and 1.3 trillion USD per year goals of the New Collective Quantified Goal on Climate Finance (NCQG) under the Baku to Belém Roadmap to 1.3T.[323]

Representative examples of revenue that individual developed countries could raise include: In the UK a 2 percent wealth tax on net assets worth more than 13.5 million USD could raise 32 billion USD every year.[324] An EU wide Financial Transaction Tax (FTT) could raise approximately 66 billion USD annually.[325]

SDRs

Automatic and/or regular allocations of SDRs could provide hundreds of billions a year.

In the mid term the UN Tax Convention must fill the remaining gaps in the mosaic:

UN Tax Convention

Under a fit for purpose UN Tax Convention, a global wealth tax targeting the top 0.5 percent of high-net-worth individuals alone could raise approximately 2.1 trillion USD a year. While establishing an internationally applied “polluter pays” surtax on the global profits of polluting and environmentally damaging industries and an effective global minimum corporate tax could raise trillions more.[326]

At the same time emerging solutions suggest that developing countries could soon be able to increase fiscal space by:

Canceling debt

As of 2024 —the latest year for which data is available— developing countries owed 31 trillion USD in public debt.[327] Under the proposed UN Debt Convention’s Multilateral Sovereign Debt Resolution

Mechanism much of this debt could be canceled. This would free up significant amounts of fiscal space in developing countries by removing the need to pay back interest and principal on debt obligations.

Leveraging fairer trade rules

Big tech and entertainment companies, including Amazon, Google, Apple and Meta, generated record profits —in the hundreds of billions— through digital services in 2025.[328] Under fairer international trade rules and a fit for purpose UN Tax Convention, developing countries could place taxes and custom duties on digital services and transmissions with the potential to raise billions each year.[329]

6

Opportunities to strengthen the mosaic

In this chapter we consider how to make strategic progress on operationalising a fit for purpose mosaic of solutions and identify key policy and political moments relevant to driving reform.

Strategic progress in tough political times

In these tough political times, it is critical to ensure that the pursuit of larger reforms do not eclipse the opportunity to make small wins and lay strategic groundwork for transformative changes later on. For example, small wins in negotiations on the UN Tax Convention, such as the inclusion of sustainable development in decision texts, could lay the groundwork for channeling money directly to the FRLD.

The current geopolitical crisis may also present opportunities. For example, although catastrophically detrimental to climate action, the fossil fuel extraction and trade policies of the US under the Trump administration could spur countries to form coalitions of the willing in support of sustainable development. This could help to set in motion significant changes in the geopolitical order, whereby countries taking climate action and achieving the SDGs take the economic lead.

However, caution should also be exercised, especially if developed countries continue to break international norms and undermine the rule of law. For example, critics of the Humanitarian Reset have strongly asserted that the reform is a reactive, panic-driven response to funding cuts likely to entrench existing, deeply flawed power structures, including the continued reliance on international, rather than local, actors.[330]

Following the hyper-prioritisation logic of the Reset, which will focus humanitarian assistance on only the most life threatening situations, it would be wise to anticipate that contributor countries may attempt to further justify a focus on "priority gaps" within loss and damage response. A phenomenon which has already been observed in FRLD Board meetings.

A timeline of key policy and political moments

We are in the critical decade for climate, environmental, and developmental action.[331] Table 2 provides a timeline of upcoming policy and political moments that can be leveraged to close key gaps in the existing mosaic of solutions.

Table 2: **Key political and policy moments between 2026 and 2030**

2026	2027	2028	2029	2030
Sustainable Development Goals				
				Deadline for attainment of the SDGs
UN Tax Convention				
First, second and third Substantive Sessions	Submission of the final Convention and two early protocols to UNGA.			
UN Framework Convention on Sovereign Debt				
	Civil society and developing countries aim to introduce the Convention to UNGA by 2027.			
Sendai Framework for Disaster Risk Reduction				
	Early Warnings for All (EW4All) deadline.			Deadline for attainment of the goals of the Sendai Framework.
CBD				
COP17 / First Global Stocktake / 7th National Reports due.		COP 18	8th National Reports due.	COP 19 / Deadline to protect at least 30 percent of the world's land and sea.
UN Convention to Combat Desertification				
COP 17		COP 18		COP 19

2026	2027	2028	2029	2030
UNFCCC				
COP 31 / BTR 2.0	COP 32	COP 33 / Second Global stocktake / BTR 3.0	COP 34	COP 35 / Fourth WIM Review / NDC 4.0 / BTR 4.0 / Deadline to halve emissions by 2030 to limit warming to 1.5°C. GGA deadline to reach 120 billion USD per year (by 2035). Baku to Belém Roadmap to 1.3T (ongoing to 2035)

7

Key recommendations

In this final chapter we provide general recommendations on how to deliver a fit for purpose mosaic of solutions as well as targeted recommendations for: political and narrative influencers in developed countries; developing country governments; and civil society actors.

General recommendations

- A mosaic of solutions approach is needed to ensure that loss and damage response can meet the needs of developing countries and the frontline communities within them.
- The mosaic of solutions approach can help:
    - Address the complex, multifaceted nature of loss and damage though a "policy mix";
    - Strengthening coherence, coordination and complementarity across climate change, DRR, humanitarian, biodiversity, and development agendas, and the three Rio Conventions; and
    - Ensure that marginalised groups get the support they need by helping to bypass power bottlenecks.
- Limiting global warming to 1.5°C, protecting ecosystems and achieving the SDGs by 2030 are the most effective ways to prevent catastrophic loss and damage in the future. However, loss and damage is happening now and must be reduced and addressed.
- Adaptation, DRR, preparedness, and anticipatory action will all help to significantly reduce loss and damage if fully funded and implemented. This must include achieving the goals of the Sendai Framework by 2030, ensuring universal coverage of early warning systems by 2027, and universal social protection by 2030. However, unavoided and unavoidable loss and damage must still be addressed.
- To ensure immediate response to loss and damage at the scale of the needs, the humanitarian system must be fully funded and transformed into a locally led and internationally supported system.
- Locally led loss and damage responses —that puts affected populations at the heart of decision making— must be centred in loss and damage response. Communities must be able to directly access finance in a simplified manner —including from the FRLD.

- Building back better must address root causes of vulnerability, ensure long term resilience, and advance sustainable development, centring the needs and priorities of affected populations.
- All finance gaps must be closed. Past precedents, including the mobilisation of trillions of USD during COVID-19 pandemic and the 2008 financial crash, show that the money is there. Developed countries can mobilise at least 6.6 trillion USD from innovative sources each year to meet their obligations. Hundreds of billions of USD in SDRs can be allocated each year by the IMF. A fit for purpose UN Tax Convention can reclaim trillions of dollars in tax.
- Readiness, technical assistance, capacity building, and technology transfer must also be provided at the scale of the needs.
- A fit for purpose UN Debt Convention will facilitate debt cancellation for developing countries, increasing their fiscal space and preventing them from facing future debt crises. This will significantly increase their capacity to respond to loss and damage.
- Trade reform can strengthen developing countries' food security, lessen their dependence on imports, give them the technology they need, and increase their fiscal space. The abolition of the ISDS mechanism will allow all countries to take climate action without the fear of being sued.
- Understanding of loss and damage must increase. Systematic observation, data collection and analysis must be strengthened.

Recommendations for policy, political and narrative influencers in developed countries

- Developed countries are the principle blockers to achieving many of the solutions within the mosaic. Domestic political and legal action is required by civil society to ensure that developed countries:
    - Meet their obligations under international law;
    - Take the lead on reducing emissions inline with the 1.5°C goal of the Paris Agreement;
    - Mobilise finance through innovative sources to generate public grant based finance domestic and international climate action and sustainable development; and
    - Agree to reform the international finance, trade, debt, and tax systems and regulate against institutions that will block progress.
- Meeting their obligations under international law to mobilise and provide finance and support to developing countries, will not harm developed countries. Instead it will benefit them by creating a more stable, prosperous, and secure world for all. A world in which the drivers of migration are reduced, trade is stable and not frequently disrupted by conflict and climate impacts, and pandemics are quickly contained, amongst other things.[332]
- Mobilising finance through innovative sources, done well, will not harm hard working tax payers and low income households in developed countries. Instead, it will help them to cope with climate impacts at home, the cost of living crisis, and strengthen their national health systems.

At the same time, it will make their lives happier and healthier by disincentivising planet wrecking activities.

Recommendations for funders of all types

- Critical pieces of the mosaic of solutions are being built, proposed and reformed right now, including the UN Tax Convention and UN Debt Convention. The work to ensure that these solutions come to fruition,are fit for purpose and deliver for developing countries and frontline communities within them, requires funding now.

Recommendations for developing country governments

- Only a small amount of support is currently available. To unlock support at the scale of the needs, ensure fiscal space and all other forms of support needed to respond to loss and damage, developing country governments must present a united front in all relevant decision making spaces. This includes reforms to debt, tax, and trade.

Recommendations for civil society

- Loss and damage response under the UNFCCC alone cannot meet the needs of frontline communities. By reclaiming the mosaic of solutions approach as a key tool to advance climate justice and undertaking strategic networked advocacy in all decision making spaces, we can start the process of delivering the world we want. That said, we must continue our work to ensure Loss and Damage under the UNFCCC delivers support to developing countries and frontline communities within them.
- Networked advocacy requires collaboration between civil society and Indigenous Peoples organisations and networks working within and across climate change, disaster risk reduction, humanitarian, biodiversity, and development agendas. This is critical to ensure that States uphold their obligations to prevent, reduce and address loss and damage in all international policy regimes.

In these challenging times when many countries are retreating to nationalism, a transformation is needed to see opportunities in mobilising a mosaic of solutions to respond to loss and damage. It is to the benefit of all countries. This paper has demonstrated that the resources exist to create a world in which all humans, all other species, and all ecosystems are thriving on a healthy planet. With the right regulatory and policy frameworks at the global and national levels, developed countries can meet their obligations and address the climate, development and colonial debt they owe developing countries while also ensuring the wellbeing of their citizens.

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