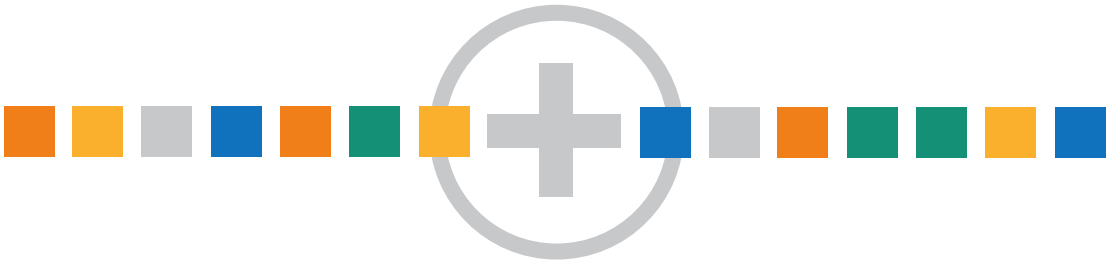
Financing climate action: iGST discussion series

Exploring loss and damage finance and its place in the Global Stocktake

Raju Pandit Chhetri, Laura Schäfer and Charlene Watson

ODI
Prakriti Resources Centre
GERMANWATCH
iGST
Independent Global Stocktake

Exploring loss and damage finance and its place in the Global Stocktake



Raju Pandit Chhetri, Laura Schäfer and Charlene Watson

March 2021

Cite as: Pandit Chhetri, R., Schaefer, L. and Watson, C. (2021) *Exploring loss and damage finance and its place in the Global Stocktake.* Part of the 'Financing Climate Action: iGST Discussion Series'.

Download the report
www.independentgst.org

ODI

iGST
Independent Global Stocktake

Prakriti Resources Centre

GERMANWATCH

About the iGST initiative and the Finance Working Group

The Independent Global Stocktake (iGST) is a consortium of civil society actors working together to support the Global Stocktake (GST), the formal process established under the Paris Agreement to periodically take stock of collective progress toward its long term goals.

The iGST aligns the independent community — from modellers and analysts, to campaigners and advocates — so we can push together for a robust GST that empowers countries to take greater climate action. www.independentgst.org

The Finance Working Group (FWG) is an open partnership bringing together expert perspectives from the global north and south on the progress made towards financing climate action. Considering the provision of support to developing countries to mitigate and adapt to climate change and the consistency of finance flows with climate objectives, the FWG aims to support the UNFCCC GST process as well as independently benchmark the official GST. The group is co-chaired by Charlene Watson of ODI and Courtnae Bailey of Imperial College London.

Acknowledgements

The authors are grateful for the review and thoughtful input from a diverse group of stakeholders. Special thanks go to Courtnae Bailey (iGST FWG co-chair), Sarah Colenbrander and Erin Roberts (ODI), Liane Schalatek (HBS), Linda Siegele (UCL, Faculty of Laws), Zoha Shawoo (SEI), Doreen Stabinsky (College of the Atlantic), M. Hafijul Islam Khan (environmental lawyer and loss and damage negotiator with the LDCs group). All omissions and errors remain the authors' own.

Contents

Acronyms

AOSIS	Alliance of Small Island States
CMA	Conference of the Parties serving as the meeting of the Parties to the Paris Agreement
COP	Conference of the Parties (to the UNFCCC)
Excom	Executive Committee (of WIM)
GCF	Green Climate Fund
GEF	Global Environment Facility
GST	Global Stocktake
IPCC	Intergovernmental Panel on Climate Change
LDC	least-developed country
MDB	multilateral development bank
NAP	national adaptation plan
NDC	nationally determined contribution
ODA	official development assistance
SCF	Standing Committee on Finance
SIDS	small island developing states
UNFCCC	UN Framework Convention on Climate Change
WIM	Warsaw International Mechanism for Loss and Damage

+ Executive summary

What is the background to this paper?

Sound science shows us that human-induced climate change is resulting in the increased frequency and intensity of both slow-onset processes and rapid-onset climate-related events. Acknowledging the near certainty of loss and damage associated with the adverse effects of climate change recognises that mitigation and adaptation will be insufficient to tackle all climate change impacts (IPCC, 2018). This loss and damage will be both economic and non-economic in nature, and in part will be a result of underlying socio-economic conditions.

The recognition that loss and damage might result from human-induced climate change was conceptualised at least as early as 1991. It appears in a proposal to address impending sea level rise by the Alliance of Small Island States (AOSIS) to the Intergovernmental Negotiation Committee, the body tasked with drafting the UN Framework Convention on Climate Change (UNFCCC). While this proposal was not taken up at the time, the concept of loss and damage in the UNFCCC process never died and has always been highly politically charged. As it became clear over time that the ultimate objective of the UNFCCC might not be met in time to 'prevent dangerous anthropogenic interference with the climate system' (UNFCCC, 2019a), developing countries demanded a separate political space within which to consider the real and costly limits to this failing global effort. On the other hand, developed countries were concerned that such consideration could lead to claims of liability and a call for compensation arising from the historical responsibility of developed countries for climate change.

From the original AOSIS proposal for a mechanism to address loss and damage from sea level rise, it took more than two decades to establish, under the Cancun Adaptation Framework, the Warsaw International Mechanism for Loss and Damage (WIM) in 2013, and it was only in the Paris Agreement, adopted in 2015, that loss and damage was afforded its own self-standing Article, creating a more solid political legitimacy in the negotiations for loss and damage.

Currently, however, there is no process for systematically collecting, recording and reporting information on loss and damage and related financial needs by countries under the UNFCCC. Nor is there a process to clearly track and report finance associated with loss and damage – either by developed or developing countries, collectively or individually. In fact, there is little clarity on the support that developing countries might receive for averting, minimising and addressing loss and damage.

Loss and damage has historically and intentionally been separated from finance discussions: it sits outside the commitments for developed countries to collectively mobilise $100 billion per year, from public, private and alternative sources, by 2020. The WIM's Executive Committee (Excom) and the Standing Committee on Finance (SCF) have discussed the financing of loss and damage, but largely their focus to date has been on identifying possible risk transfer and risk retention instruments, such as insurance and contingency funds, while recognising the gaps associated with financing for non-economic losses, as well as loss and damage from slow-onset processes.

The latest decision on loss and damage under the UNFCCC recognises the urgency of enhancing finance for loss and damage and 'invites' Parties to make use of the finance available. Concrete work on financing for loss and damage, however, has been left to the Excom, in collaboration with the Green Climate Fund (GCF), to the extent it can be made consistent with its existing investment, results framework and funding windows. The Excom

has also been requested to strengthen its dialogue with the SCF, which should place mentions of loss and damage more prominently into guidance given to the financial mechanism of the Convention and Paris Agreement, but it does not adequately address the increasing demand from a number of vulnerable developing countries, such as the small island developing states (SIDS) and least-developed countries (LDCs), for dedicated financing for addressing loss and damage.

What is the objective of this paper?

This paper provides a state of play for loss and damage finance. This is presented with the background context of what loss and damage is and how the concept has evolved in the UNFCCC process; critical reading for such a highly politically charged topic.

The objectives of the paper are twofold. The first is to outline the practical challenges that are faced by national stakeholders and international climate finance providers, both in progressing the financing of loss and damage and in monitoring and tracking such finance. Mechanisms of providing loss and damage finance must face these technical and political challenges if they are then to ensure the architecture, capacity and expertise underlying it are capable of delivering effective loss and damage finance. This is not an excuse for delay, but a call for iterative learning in delivering an effective design.

The second objective of the paper is to highlight the opportunity that the first Global Stocktake (GST) of the Paris Agreement in 2023 presents for progressing loss and damage finance challenges. Embedded in Article 14 of the Paris Agreement, the GST requires the collective assessment of progress towards the goals of the agreement every five years. Loss and damage is included as a cross-cutting issue in the GST, with information to be included on efforts to enhance understanding, action and support for loss and damage. The GST can, therefore, be used to lay the groundwork and develop a framework around which discussions on loss and damage support, including finance needs, can be had. Ultimately, this paper intends to support a learning-by-doing approach to overcoming the practical challenges of international support for loss and damage, articulating the role for both government and non-governmental stakeholders in moving forward the debate.

Chapter 1 outlines what loss and damage is, highlighting its scientific underpinnings. Chapter 2 builds on this, to characterise the types of support that countries are looking for to minimise, avert and address loss and damage. Chapter 3 explores how the concept of loss and damage appeared and is being discussed, while Chapter 4 summarises the progress towards loss and damage finance in the UNFCCC process. Chapter 5 outlines five practical challenges of loss and damage finance that could hinder progress towards effective loss and damage finance. Chapter 6 illustrates the opportunity for the GST to take loss and damage into account, including in its financing themes, and Chapter 7 concludes.

Who is the target group for this paper?

There are multiple target groups for this paper. Chapters 1, 2 and 3 act as primers and a resource for all actors new to the loss and damage discussions, outlining its evolution over the past three decades. Chapter 4 additionally speaks to interested governmental and non-governmental stakeholders, detailing how the financing of loss and damage has progressed over the past decade. Chapter 5, outlining practical challenges, is relevant for finance and loss and damage negotiators, as well as independent actors; illustrating where data, information and a convergence in ideas and solutions can progress the debate. Chapter 6 is relevant for all actors hoping to progress loss and damage finance discussions in the context of the first GST of the Paris Agreement.

What do we understand as loss and damage finance?

Loss and damage finance is considered in this paper to be the support provided as a result of needs attributed to climate change, and delivered following the principles of equity, justice and historical responsibility, to be guided by scientific findings and conclusions. It is considered to fall under the umbrella term of climate finance, complementary to mitigation and adaptation finance. It is recognised, however, that this definition remains too broad to fully operationalise with respect to tracking and accounting and will need to be further developed.

The financial mechanism of the UNFCCC does not yet sufficiently provide finance for averting, minimising or addressing loss and damage. Finance for addressing loss and damage is not separately recognised within multilateral climate change funds or bilateral climate finance support or by the multilateral development banks (MDBs). While multilateral funds could be requested to consider funding for loss and damage under their existing mandates, they would need to ensure adequate technical capacity to review proposals, to make use of existing accredited entities to deliver them, and to appropriately monitor their impacts. At the 2019 UNFCCC Conference of the Parties in Madrid (COP25), loss and damage was loosely anchored within the UNFCCC financial architecture. The Conference of the Parties (COP) and Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA) decisions providing guidance to the GCF asked the GCF Board to continue providing financial resources for activities relevant to averting, minimising and addressing loss and damage.

Ultimately, loss and damage finance will entail a range of sources and instruments. These might include United Nations or other institution-based funds, regional and national funds for loss and damage, or bilateral arrangements that make use of existing or new institutions. It remains politically infeasible for multilateral climate change funds that sit under the Convention and Paris Agreement to separate or identify loss and damage finance. In the short term, it is more likely that a multilateral mechanism established outside of the UNFCCC financial mechanism could provide a learning function. There remains a strong role for public actors and public finance, with international public finance that is highly concessional in nature playing a key role in the most vulnerable countries. Iteratively learning what works, in combination with a strong process to facilitate learning-by-doing and mandated assessment, will be required to progress towards an effective architecture for delivering loss and damage finance.

What are the key challenges in the context of loss and damage finance?

The design of any effective financing channel must consider a host of practical challenges in conceptualising loss and damage finance. Table 1 outlines five practical challenges for financing loss and damage. These include challenges in: modelling loss and damage and articulating support needs; determining which countries should be prioritised for loss and damage finance, balancing vulnerability and respective capabilities; understanding the roles of differing sources of finance, including public and private, international and domestic, ex ante and ex post, as well as the potential for alternative sources of financing; identifying and putting in place the most appropriate actors and institutions to deliver loss and damage responses; and distinguishing the characteristics of loss and damage finance from those of adaptation, development and humanitarian financing streams.

Table 1 Five practical challenges for financing loss and damage

Challenge	Description	Implication
The capacity to model loss and damage and articulate finance needs is lacking	There is no current process for systematically collecting, recording and reporting information on loss and damage and related financial needs by countries.	This hinders the ability of developing countries to assess the degree to which the finance available is aligned with their needs and priorities. It also challenges contributors in understanding the best routes through which to address loss and damage finance needs.
It is not clear which countries have the greatest need for loss and damage finance	The principle of prioritising countries with high vulnerability and low capacity to finance climate action could well be applied to the funding of loss and damage. However, vulnerability draws diverse justifications and interpretations in climate negotiations.	It is not clear how to balance the needs of countries with the lowest indicators of socio-economic development, income and capacity to respond with those of countries facing existential threats, such as SIDS, regardless of their current levels of socio-economic development, income and capacities.
The roles of different sources of finance in averting, minimising and addressing loss and damage are not clear	Where estimates of loss and damage finance needs exist, they are not always accompanied by an understanding of the roles of differing sources of finance – domestic, international, public and private – and how they may interact.	This challenges the ability of recipients and contributors of finance to put finance to work in the most efficient and effective ways possible. While there will be a strong role in loss and damage finance for public finance, with concessional international public finance playing a key role in the most vulnerable countries, a better consideration of different sources and the systems governing them could lead to broader systemic changes in the way that risks are managed in investment decision-making.
The current climate finance architecture does not necessarily have the right framework and expertise to programme loss and damage finance	The operating entities of the financial mechanism of the UNFCCC – the Adaptation Fund, the Global Environment Facility and the Green Climate Fund – do not have explicit mandates to fund loss and damage activities. Investment and results frameworks currently in place largely ensure and measure outcomes from a mitigation and an adaptation perspective, while the accredited entities – through which projects are implemented – do not necessarily have expertise on loss and damage.	While some institutions and actors in the climate finance architecture may have relevant processes, knowledge and experience of how projects and programmes for loss and damage might be carried out, they do not necessarily have the full suite of knowledge needed to support an appropriate or effective loss and damage response.
It is hard to differentiate loss and damage finance from development and humanitarian finance	Despite these broadly describable characteristics, there remain challenges in identifying the boundaries between humanitarian, development and climate finance, and loss and damage finance therein. Activities and actions over these themes are likely to have overlaps.	While the difficulty in differentiation between finance sources reflects that there are no clear buckets to receive funding at national and subnational levels, the lack of clear definitions hinders the programming and tracking of and learning from each source of finance on its own, much less accountability to any goals and commitments.

What opportunity does the GST provide to progress loss and damage finance?

In 2018, the Katowice decisions set the scene for the first GST. It outlined that the GST will be a three-step process of information collection and preparation, technical assessment and political assessment. It further outlined that loss and damage will be addressed, at minimum, in technical dialogues. There remain many details to be elaborated for the GST and it remains unclear exactly how information on support, or more specifically loss and damage finance, will be included.

The Subsidiary Body for Scientific and Technological Advice and the Subsidiary Body for Implementation will be tasked with developing guiding questions for the GST. With the engagement also of the WIM Excom, the SCF and the GCF, the GST could provide a first minimum baseline for loss and damage finance needs and response.

Inputs from UNFCCC bodies should be accompanied by stronger government and non-government stakeholder inputs. Both government and non-governmental actors can make written submissions as technical input to the GST and actively engage in the technical dialogues, for example around the provision of data and information on loss and damage and associated finance needs. These could work to complement other capacity-building platforms, such as the Santiago Network on Loss and Damage, which aims to catalyse technical assistance towards implementation of loss and damage approaches.

With the input phase of the first GST anticipated to start in 2022, there remains an opportunity for all actors to elevate the discussion on loss and damage finance. The 2023 GST will be a first step, not a comprehensive assessment of loss and damage needs and support. However, if used well, it can lay the groundwork for a framework around which progress towards loss and damage finance can be made.

1. What is loss and damage?

In its 2018 Special Report on 1.5°C global warming, for the first time the Intergovernmental Panel on Climate Change (IPCC) strongly acknowledged the issue of loss and damage.[1] It stated that 'there are limits to adaptation and adaptive capacity for some human and natural systems at global warming of 1.5°C, with associated losses' (IPCC, 2018). For instance, slow-onset processes, such as sea level rise, glacial melt and rising temperatures, as well as extreme events, including tropical cyclones, flooding and drought, are causing damage with which humans and ecosystems can no longer cope. Limits to adaptive capacity will become even more pronounced at higher levels of warming (ibid.).

Loss and damage is therefore a third pillar in the global effort to address the adverse effects of climate change, alongside adaptation and mitigation. There is no globally agreed definition of loss and damage, however. While it has been argued that the ambiguity around the definition of loss and damage has allowed for progress around agreements on loss and damage in the political realm, the lack of a formal definition throws up challenges in the preparation of plans, policies and strategies to minimise, avert and address loss and damage.

In the absence of an official definition, we understand loss and damage as 'adverse impacts of human-induced climate change that cannot be avoided by mitigation or adaptation, or that will not be avoided in the future by adaptation due to insufficient resources' (Mace and Verheyen, 2016). Verheyen (2012) characterises loss and damage as the result of impacts that are unavoided or unavoidable. She introduces avoided loss and damage as a third category, being damage prevented through mitigation and/or adaptation measures. This triad (avoided, unavoided and unavoidable) reflects that the extent of loss and damage significantly depends on mitigation and adaptation efforts, where efforts can either avoid loss and damage or, where not sufficient or unsuccessful – whether due to technical, financial or political constraints and limits – lead to unavoided or unavoidable loss and damage (Table 2).

Table 2 Avoided, unavoided and unavoidable loss and damage

Avoided	Unavoided	Unavoidable
Avoidable damage and loss avoided	Avoidable damage and loss not avoided	Unavoidable damage and loss (irreversible)
Damage prevented through mitigation and/or adaptation measures	Where the avoidance of further damage was possible through adequate mitigation and/or adaptation, but where adaptation measures were not implemented due to financial or technical constraints	Damage that could not be avoided through mitigation and/or adaptation measures; – slow-onset changes such as sea level rise, glacial melting – damage due to extreme events where no adaptation efforts would have helped prevent the physical damage

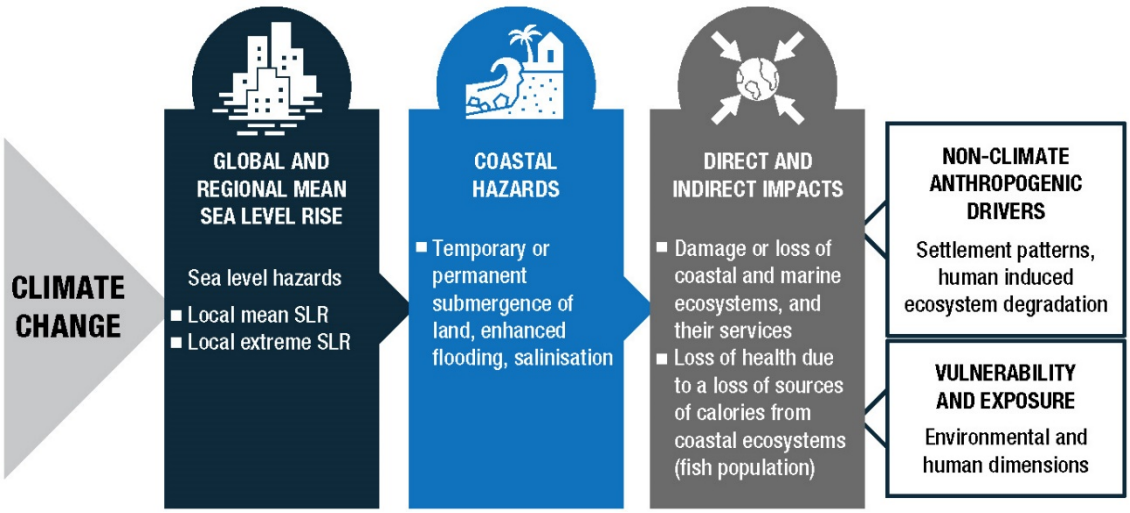
Source: Verheyen (2012)

[1] The glossary to the IPCC Special Report on the ocean and cryosphere (IPCC, 2019) identifies that Loss and Damage (capitalised letters) refers to the political debate under the UNFCCC, following the WIM establishment. It further notes that losses and damages (lower case letters) refers broadly to the harm from (observed) impacts and (projected) risks. This academic approach is not adopted in this paper and we follow the UNFCCC convention in all references to loss and damage.

The conclusion, therefore, is that loss and damage is beyond adaptation. The IPCC (2014) differentiates between hard adaptation limits (those that will not change, e.g. thresholds in physical systems or the exceedance of the physiological capacity of individual organisms or communities to adapt to changes) and soft adaptation limits (which could change over time, e.g. economics, technology, infrastructure, laws and regulations, or broader social and cultural considerations).

Loss and damage can be caused by extreme weather events (e.g. heat waves or tropical cyclones) and slow-onset processes (e.g. sea level rise, temperature rise and ocean acidification), as well as events triggered by a combination of the aforementioned. Multiple factors combine with these physical events to deliver loss or damage. In addition to anthropogenic emissions, factors such as natural climate variability, exposure, vulnerability and coping capacity must also be taken into account. Figure 1 provides an overview of the different drivers of loss and damage for the case of sea level rise.

Figure 1 Slow-onset processes' chain of effects for sea level rise



Source: Schäfer et al. (2021a), based on information from IPCC (2019), pp 326–375

A distinction can be made between economic and non-economic loss and damage. Climate change impacts can cause loss and damage to goods (resources, services) that are commonly traded in markets. Examples include property and infrastructure. But material and non-material goods that cannot be traded are also lost by those affected. Examples are the loss of life, cultural identity, indigenous and local knowledge, human health, biodiversity or territory (Morrissey and Oliver-Smith, 2013). It is also important to note that loss and damage resulting from both extreme weather events and slow-onset processes can hinder the enjoyment of internationally guaranteed human rights, such as the rights to adequate food, water, health and housing, and can be a driver of migration (UN OHCHR, 2019).

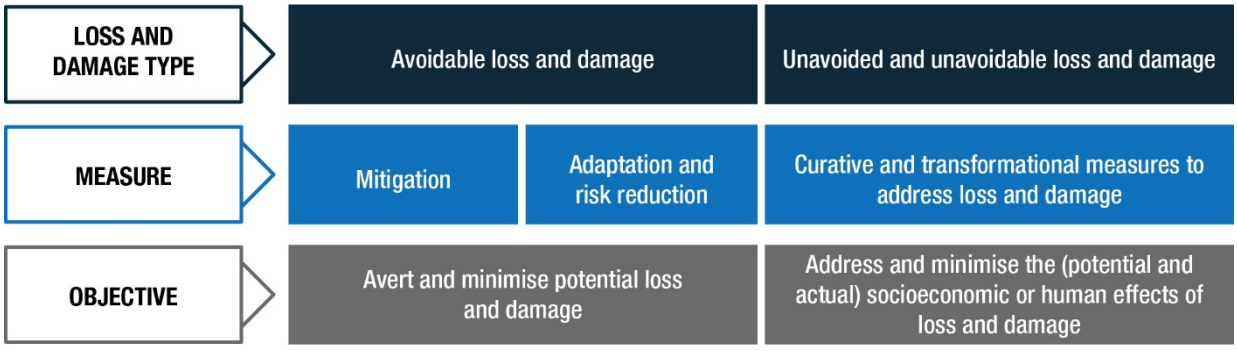
+ 2. What type of support are countries looking for to minimise, avert and address loss and damage?

Loss and damage is experienced through economic and non-economic impacts from both extreme events and slow-onset processes. Developing countries seek support to address economic losses, such as those to property, infrastructure, income and businesses, and non-economic losses, such as those to cultural heritage, loss of lives, livelihoods, biodiversity and ecosystems.

Many approaches to address loss and damage fit within comprehensive 'risk management'. Examples of risk management to address loss and damage include risk assessment, risk reduction, risk transfer and risk retention (where the costs of loss and damage are absorbed by the Party experiencing the loss and damage). A risk management approach primarily addresses loss and damage ex ante, i.e. before events happen. Approaches to address actual impacts ex post, rather than 'risk', have received considerably less attention, traditionally being the remit of humanitarian organisations funding action to redress the fallout of disasters.

To be able to understand the various measures for which countries have requested support, it is helpful to differentiate between three terms: averting, minimising and addressing loss and damage. Figure 2 shows how mitigation, adaptation and risk-reduction measures are key elements in *averting* and *minimising* avoidable loss and damage. For unavoided or unavoidable loss and damage, the essential elements include curative and transformative measures to *minimise* and *address* socio-economic or human effects of loss and damage.

Figure 2 Averting, minimising and addressing loss and damage



Source: Schäfer et al. (2021b)

Developing country requests for support are generally for curative or transformative loss and damage measures (Schinko et al., 2018). While curative measures are aimed at addressing and minimising the (potential) socio-economic or human effects of actual irreversible impacts, transformative measures are applied 'when limits to structural protection or other adaptation measures to manage climate-related risks are reached' and are, therefore, complementary to disaster risk-reduction and adaptation measures (Schinko et al., 2018; Roberts and Pelling, 2019). Both curative and transformative measures should cover economic and non-economic loss and damage. Table 3 summarises exemplary measures that fall under this category.

Table 3 Examples of measures to address loss and damage

	Exemplary measures to address loss and damage	
	Economic loss and damage	**Non-economic loss and damage**

Curative measures	• (Support for) setting up or scaling up financial protection measures to increase financial resilience (prearranged funding when impacts happen to protect fiscal balance, subnational governments, households and businesses)
	• (Support for) setting up or scaling up social protection schemes
	• Recovery and rehabilitation (e.g. based on financial protection measures, applicable for areas that are not permanently submerged but affected from more frequent high sea level events), including, for example:
	  ○ (support for) rebuilding of coastal infrastructure that has been destroyed
	  ○ (support for) rebuilding of livelihoods
	• Support for involuntary climate-induced displacement and forced migration
	• Capacity-building
		• Recognition of loss (accompanied/unaccompanied by financial payments)
		• Active remembrance (e.g. through museum exhibitions, school curricula)
		• Counselling
		• Official apologies

Transformative measures	• Support for voluntary migration (including planned relocation if areas can be foreseen as no longer inhabitable or manageable, and safe alternative localities are available) • Support in building up alternative livelihood provisions for people who can no longer, for example, fish because of sea level rise	

Source: Schäfer et al. (2021b)

There are no official and commonly accepted estimates on the amount of finance needed by developing countries to deal with loss and damage and to implement the above-described measures. The IPCC's Fifth Assessment Report estimates that global annual economic losses for additional temperature increases of ~2°C lie in the range of between 0.2% and 2.0% of gross domestic product (IPCC, 2014). And for non-Annex I countries, Markandya and González-Eguino (2018) estimate total residual damages of $116–435 billion in 2020, rising to $290–580 billion in 2030, $551–1,016 billion in 2040 and $1,132–1,741 billion in 2050.

A key challenge in articulating support to address climate-related loss and damage is the issue of multicausality, where multiple factors combine with the physical events that deliver loss or damage. In addition to anthropogenic emissions, factors such as natural climate variability, non-climate anthropogenic drivers, exposure and vulnerability must also be taken into account. Furthermore, while attribution science has made huge progress in recent years, particularly through probabilistic event attribution, attributing all losses and damages caused by an extreme event to climate change is still not possible (Otto et al., 2016).

+ 3. How is loss and damage discussed in the UNFCCC process?

The concept of loss and damage is not a new one. It was introduced in 1991 by the Alliance of Small Island States (AOSIS) under the UNFCCC negotiations. It was primarily raised by AOSIS to seek support from developed countries for the potential damage caused by rising sea levels (AOSIS, 1991).[2] Figure 3 summarises the major events and decisions related to loss and damage throughout the UNFCCC process.

Table 4 Major events and decisions related to loss and damage

Timeline	Events and decisions
AOSIS submission, 1991	AOSIS, chaired by Vanuatu, proposed the establishment of an international fund and insurance pool to compensate the most vulnerable small island and low-lying coastal developing countries for loss and damage resulting from sea level rise (AOSIS, 1991).
COP13, Bali, 2007	Bali Action Plan launched enhanced action on adaptation, including, inter alia, consideration of disaster-reduction strategies and means to address loss and damage associated with climate change impacts in developing countries that are particularly vulnerable to the adverse effects of climate change.
COP14, Poznan, 2008	AOSIS proposed the multi-window mechanism on loss and damage.
COP16, Cancun, 2010	Agreed to a work programme on loss and damage. Recognised the need to strengthen international cooperation and expertise in order to understand and reduce loss and damage associated with the adverse effects of climate change, including impacts related to extreme weather events and slow-onset events – 'Cancun Agreements'.

[2] AOSIS highlighted the need to address climate-related loss and damage for the most vulnerable Parties, and proposed the establishment of an international insurance pool as a collective loss-sharing scheme to compensate victims of projected sea level rise (AOSIS, 1991).

Timeline	Events and decisions
COP17, Durban, 2011	Agreed to continue the work programme on loss and damage and, in particular, to assess the risk of loss and damage, develop approaches to address such, and consider the role of the Convention in addressing loss and damage.
COP18, Doha, 2012	Agreed on the role of the Convention in addressing loss and damage. Agreed that institutional arrangements to address loss and damage as a result of climate change would be firmly established under the Convention.
COP19, Warsaw, 2013	Established the Warsaw International Mechanism for Loss and Damage associated with climate change impacts (WIM), and an executive committee (Excom) to implement the functions of the WIM. Through its functions, decided that the WIM shall fulfil the role of the Convention in promoting the implementation of approaches to address loss and damage associated with the adverse effects of climate change, in a comprehensive, integrated and coherent manner.
COP20, Lima, 2014	Approved the initial two-year workplan of the Excom of the WIM associated with climate change impacts. Gave the Excom the authority to establish subgroups to help it do its work.
COP21, Paris, 2015	Includes a dedicated Article on addressing loss and damage in the Paris Agreement (Article 8). The Article includes that Parties should enhance understanding, action and support on loss and damage. Recognises the importance of averting, minimising and addressing loss and damage associated with the adverse effects of climate change, including extreme weather events and slow-onset events, and the role of sustainable development in reducing the risk of loss and damage.
COP22, Marrakech, 2016	First review of the WIM, which: (1) includes calls for the secretariat to prepare a technical paper on elaborating the sources of financial support for loss and damage; and (2) recommends that the Excom establish an expert group on action and support.

Timeline	Events and decisions
COP24, Katowice, 2018	Decision 18/CMA.1: Annex on the modalities, procedures and guidelines, para. 115, foresees including information on loss and damage in the biennial transparency reports, which will be reviewed on a collective basis under the GST. GST Decision 19/CMA.1 speaks to taking loss and damage into account (para. 6.b.ii) and asks the Excom (among other constituted bodies) to prepare a synthesis report on an explicitly identified set of information (para. 36 of the same decision). Mentioned efforts to avert, minimise and address loss and damage under the COP and invited Parties to consider developing policies, plans and strategies, as appropriate, and to facilitate coordinated action and the monitoring of progress, where applicable, in their efforts to avert, minimise and address loss and damage. Also asked Parties to take into consideration future climate risks when developing and implementing their relevant national plans and strategies.
COP25, CMA.2, Madrid, 2019	Decision 2/CMA.2 (review of the WIM) requests the Excom to collaborate with the GCF on clarifying how developing countries might access funding for loss and damage. Decision 2/CMA.2 (review of the WIM), Decision 12/CP.25 and 6/CMA.2 invite the GCF to continue providing financial resources for activities relevant to averting, minimising and addressing loss and damage for developing country Parties, to the extent consistent with the existing investment, results framework and funding windows and structures of the GCF, and to facilitate efficient access in this regard, and in this context to take into account the strategic workstreams of the five-year rolling work plan of the Excom associated with climate change impacts.

Source: This table is drawn from submissions and various decisions of the Conference of Parties of the UNFCCC as referenced in the text.

Loss and damage was formally recognised and anchored under the UNFCCC through the creation of the Warsaw International Mechanism for Loss and Damage (WIM) at COP19 in 2013, after years of diligent effort from developing countries (see Vanhala and Hestbaek, 2016). The establishment of the WIM was not a last-minute political compromise to break the deadlock at the climate talks, but rather the result of a longstanding call for the need to address unavoidable impacts of climate change (TWN, 2014). When the WIM was established, its set objective was to 'promote the implementation of approaches to address loss and damage in a comprehensive, integrated and coherent manner' (UNFCCC, 2014). In addition to the first two functions of enhancing knowledge and strengthening dialogue, the third function of the WIM is to enhance action and support, including finance, technology and capacity-building, to address loss and damage associated with the adverse effects of climate change, to enable countries to undertake actions (UNFCCC, 2014).

In the 2015 Paris Agreement, loss and damage was embedded as a self-standing Article (UNFCCC, 2015: Article 8). Through Article 8, the Parties recognised the importance of averting and minimising, in addition to addressing, loss and damage associated with the adverse effects of climate change (Box 1).[3] The Paris Agreement further recognised that the WIM, established under the UNFCCC process, would be subject to the authority and guidance of the Paris Agreement's governing body (UNFCCC, 2015). Concrete actions to avert, minimise and address loss and damage are set out in Article 8.4, but the development of a coherent plan for implementing them is still in progress. The principal outstanding issues relate to measures to address loss and damage.

Box 1 Loss and damage in the Paris Agreement

Embodying loss and damage as its own Article in the Paris Agreement separated it from adaptation (which is largely contained in Article 7). In addition to explicitly recognising loss and damage, the Paris Agreement Article 8 commits Parties to 'enhance understanding, action and support, including through the Warsaw International Mechanism, as appropriate, on a cooperative and facilitative basis with respect to loss and damage associated with the adverse effects of climate change'.

The wording used – namely 'cooperative' and 'facilitative' – was deliberate, to move away from more compensation or liability framings and interpretation for support. Liability and compensation is further referenced in the text of Paris Decision 1/CP.21, paragraph 52, where the Conference of the Parties agrees that 'Article 8 of the Agreement does not involve or provide a basis for any liability or compensation'.

Article 8.4 provides a positive list of areas for cooperation and facilitation to enhance understanding, action and support for loss and damage. They are: early warning systems; emergency preparedness; slow-onset events; events that may involve irreversible and permanent loss and damage; comprehensive risk assessment and management; risk insurance facilities, climate risk pooling and other insurance solutions; non-economic losses; and resilience of communities, livelihoods, and ecosystems.

These areas are acknowledged to overlap with adaptation and disaster risk reduction, however, and more understanding of what Parties need to address loss and damage is required, while ensuring that the financing of adaptation actions, disaster risk reduction, development finance or humanitarian responses is not conflated with financing for loss and damage.

Sources: UNFCCC (2015); UNFCCC (2016a); Burkett (2016)

In Decision 1/CP.21, the COP requested the Excom to establish a 'clearing house' for risk transfer. The idea was that it would serve as a repository for information on insurance and risk transfer, to facilitate the efforts of Parties to develop and implement comprehensive risk

[3] The WIM was established to help the UNFCCC fulfil its role of promoting the implementation of approaches to 'address' loss and damage. The inclusion of loss and damage in the Paris Agreement instead acknowledges the Parties' recognition of the importance of 'averting, minimising and addressing' loss and damage. The Katowice decision text on the GST also refers to averting, minimising and addressing loss and damage. In this paper, we refer to averting, minimising and addressing loss and damage as 'loss and damage response measures', though it is noted that there is little understanding of how to finance the addressing of loss and damage, and strong emphasis on ex-ante rather than ex-post measures.

management strategies (UNFCCC, 2016a). Consequently, at COP23 in November 2017, the Fiji Clearing House for Risk Transfer was launched. To date, this clearing house has acted as a platform for discussion and the sharing of stories among stakeholders. It has supported learning around risk transfer, rather than acting to enhance support to developing countries.

At COP25 in Madrid, the review of the WIM 'acknowledge[ed] that further work is needed to effectively operationalize the functions of the Warsaw International Mechanism' (UNFCCC, 2020a). COP25 also resulted in decisions regarding action and support for loss and damage (see Chapter 5) and the establishment of the Santiago Network for Loss and Damage. The Network shall 'catalyse the technical assistance of relevant organizations, bodies, networks and experts, for the implementation of relevant approaches at the local, national and regional level, in developing countries that are particularly vulnerable to the adverse effects of climate change' (UNFCCC, 2020a: Decision 2/CMA.2, para. 43). The network is yet to be operationalised but presents an opportunity to 'provide reliable support for the most vulnerable countries and communities to address loss and damage on the ground and give voice and agency to frontline communities, those affected by loss and damage' (White et al., 2020).

Article 14 of the Paris Agreement outlines an obligation for countries to assess progress towards their commitments every five years. The Global Stocktake (GST) will 'assess the collective progress' towards agreed long-term goals 'in a comprehensive and facilitative manner, considering mitigation, adaptation and the means of implementation and support' (UNFCCC, 2015: Article 14.1). The first GST will be carried out in 2023. Loss and damage is included as a cross-cutting issue in the GST. However, the Katowice decision on the GST (Decision 19/CMA.1) falls short of outlining exactly what information on loss and damage might be included (Höhne et al., 2019). This assessment can guide action as well as ensure the accountability of actors, yet the next two years will be critical for laying the foundations for a meaningful GST, particularly for loss and damage.

+ 4. What has the UNFCCC process said on finance for loss and damage so far?

The UNFCCC broadly articulates the needs of developing countries. Article 3 highlights the common but differentiated responsibilities of States, and states that 'specific needs and special circumstances of developing country Parties, especially those that are particularly vulnerable to the adverse effects of climate change, and of those Parties, especially developing country Parties, that would have to bear a disproportionate or abnormal burden under the Convention, should be given full consideration'. Article 4 clearly outlines developed countries' responsibility to support vulnerable developing countries through funding, technology transfer and insurance (UNFCCC, 1992).

In 2009, through the Copenhagen Accord, developed countries committed to mobilise jointly $100 billion a year by 2020 to address the needs of developing countries (UNFCCC, 2009), a target that was formally agreed the following year at COP16 in Cancun. This funding would come from a wide variety of sources: public and private, bilateral and multilateral, and including alternative sources of finance. This climate finance has been largely focused on mitigation and adaptation actions (OECD, 2020; Oxfam, 2020). As decided at COP19, one of the functions of the WIM was to enhance action and support, including finance, technology and capacity-building, to address loss and damage associated with the adverse effects of climate change, so as to enable countries to undertake actions (UNFCCC, 2014). Notably, Article 8 of the Paris Agreement makes mention of support, but not explicitly 'finance', for averting, minimising and addressing loss and damage.

In an effort to advance understanding of the financial instruments that address the risks of loss and damage associated with the adverse effects of climate change, the Excom of the WIM requested the Standing Committee on Finance (SCF) – a body supporting the COP and the financial mechanism, including by measurement, reporting and verification of support provided – to devote one of its annual forums to the topic. Accordingly, in 2016, the SCF held its annual forum on the topic 'Financial instruments that address the risks of loss and damage'. A report of the forum was presented at COP22 in Marrakech. The range of financial instruments addressed at the forum included insurance, contingency finance, catastrophe bonds and social protection schemes. Among the conclusions were that, while a range of financial instruments were available for addressing the risks of loss and damage, there was a need for more work to be carried out to develop financial instruments, in particular in respect of slower onset processes, such as sea level rise, rising land and sea temperatures and ocean acidification. It further noted the complexities in the tracking of loss and damage finance (UNFCCC, 2016b).

In 2019, the UNFCCC Secretariat prepared a technical paper titled *Elaboration of the sources of and modalities for accessing financial support for addressing loss and damage* (UNFCCC, 2019a). This was in response to the request made at COP22 in 2016 to elaborate the sources of financial support, whether provided through or outside of the financial mechanism, for addressing loss and damage and modalities for accessing such support. The report was intended as an input into the review of the WIM in 2019 at COP25. This report looks into various aspects of addressing loss and damage and the sources of finance based on current practice; however, gaps and challenges, as well as potential additional sources, were not explored.

No concrete decisions have been made under the UNFCCC that provide clear guidance on the financing of averting, minimising and addressing loss and damage. This is against the

backdrop of an increasing demand from a number of particularly vulnerable developing countries, particularly some within the SIDS and LDCs groupings, for a dedicated source of financing for loss and damage. This call is often for the provision of support in developing specific plans, programmes and strategies to address loss and damage, as there is for adaptation and mitigation, for example from countries such as Vanuatu (Vanuatu, 2018).

One of the avenues through which the particularly vulnerable developing countries have proposed to finance loss and damage is the Green Climate Fund (GCF). The GCF is the newest operating entity of the financial mechanism under the UNFCCC and serving the Paris Agreement. It is also the biggest of the multilateral climate change funds, both in pledge volume and project approval amounts (Schalatek and Watson, 2020). The governing instrument of the GCF states that the Fund 'will finance agreed full and agreed incremental costs for activities to enable and support enhanced action on adaptation, mitigation (including REDD-plus), technology development and transfer, capacity-building and the preparation of national reports by developing countries' (GCF, nd). Currently, therefore, this Fund does not have an explicit provision to finance loss and damage and developing countries can only apply for funding as adaptation, mitigation or cross-cutting.

At the 2019 COP25 in Madrid, loss and damage was loosely anchored within the UNFCCC financial architecture. Decision 2/CMA.2 requests the Excom to collaborate with the GCF to 'clarify how developing country Parties may access funding' for loss and damage. In parallel, COP and CMA decisions providing guidance to the GCF asked the GCF Board to 'continue providing financial resources for activities relevant to averting, minimizing and addressing loss and damage' (UNFCCC, 2020a).

Also at COP25, the Excom was requested to establish an expert group on action and support, which was the culmination of calls made by developing country Parties since the first review of the WIM in 2016. The expert group is tasked with clarifying how the access of developing countries to existing GCF funds and existing financial resources for loss and damage can be facilitated. The Excom was requested to establish this expert group by the end of 2020, pursuant to Decision 2/CP.19, which established both the WIM and its Excom and set out the functions of the WIM, including enhancing action and support (finance, technology and capacity-building). Subsequently, at its 12th meeting in October 2020, the Excom adopted terms of reference and established the Expert Group on Action and Support (or ASEG) (see UNFCCC, 2020b, for Excom members).

The work of this expert group on action and support is to assist the Excom in implementing COP and CMA decisions and its five-year rolling workplan as it relates to action and support, including finance, technology and capacity-building, guided by workstream (e) of the workplan. The expert group in collaboration with the GCF will clarify access to funding for loss and damage, but the work is in progress. While the Excom has been consulting with the operating entities of the financial mechanism under the Convention in pursuit of enhancing support for loss and damage, to date these discussions have been largely symbolic in nature.

+ 5. What are the practical challenges of conceptualising loss and damage finance?

The climate community should be keen not to repeat the deliberate looseness in the wording of the $100 billion goal. There remains no clarity on what counts towards the developed country commitment to mobilise $100 billion a year by 2020, from public, private and alternative sources, to developing countries to respond to climate change (Weikmans and Roberts, 2019; Roberts and Weikmans, 2017; Pickering et al., 2015).

Both technical and political challenges hinder the conceptualisation and realisation of financial support for loss and damage as a category separate to adaptation or mitigation or, indeed, as part of climate finance. Working through challenges is important if the best support system possible is to be designed. This is not an excuse for delay, but a call for iterative learning in delivering an effective design. As the ongoing work on technical challenges progresses, the politics around the issue should become less loaded – improving transparency and furthering equity, trust and faith in the support mechanisms that ultimately emerge – facilitating the acceptance of ways forward. This chapter highlights some of the technical and political challenges towards conceptualising loss and damage finance.

5.1 The capacity to model loss and damage and articulate finance needs is lacking

There is no current process for systematically collecting, recording and reporting information on loss and damage and related financial needs by countries under the UNFCCC. Nor is there a process to clearly track and report finance associated with loss and damage – either by developed or developing countries, collectively or individually.

Nationally determined contributions (NDCs) are the tool at the heart of the Paris Agreement for achieving its long-term goal of limiting global warming to well below 2°C, and preferably to 1.5°C, compared with pre-industrial levels. NDCs are submitted by each country and contain pledges for reducing national emissions and adapting to the impacts of climate change. All countries were to provide ambitious new or updated NDCs by 2020. However, communicating loss and damage is not a mandatory element of NDCs. Therefore, to date, most NDCs do not include explicit information on loss and damage needs, although there has been a move recently for countries to do so.

National adaptation plans (NAPs) support medium- and long-term adaptation planning in developing countries. To date, loss and damage does not explicitly appear in the NAPs of most of the countries. This is, in part, because neither the process itself nor guidance from the UNFCCC includes loss and damage. Loss and damage has been separated from adaptation for many years in the negotiations and, therefore, there is no specific mandate to include loss and damage responses in these documents. A number of countries have, however, included elements that would be considered loss and damage (e.g. noting limits to adaptation or insurance mechanisms), and the on-the-ground reality, as noted above, is a complex continuum between adaptation and loss and damage.

Furthermore, many countries find costing adaptation and NDCs challenging. Assessing the risks and vulnerabilities, investigating adaptation and mitigation responses, and then separately addressing loss and damage is a complex process, particularly for countries with limited capacity. Without concrete financial support, and with widely limited historical climate data (hydrological and meteorological) and low capacity to model future projections, countries

have been largely unable to appropriately cost loss and damage. Developing countries and some non-governmental organisations request that both the NDC and NAP processes should better include loss and damage components so that support for their assessment and implementation can be included (Chamling Rai and Acharya, 2020).[4]

The lack of complete data on the risks and impacts of loss and damage hinders the expression – and therefore funding – of needs.[5] For example, it challenges the ability of developing countries to assess the degree to which the finance available is aligned with their needs and priorities, as well as challenges contributors in understanding the best routes through which to address loss and damage finance needs.

5.2 It is not clear which countries have the greatest need for loss and damage finance

All developing countries are eligible for receiving funding from developed countries under the principle of common but differentiated responsibilities under the UNFCCC. The UNFCCC, however, recognises that low-lying and other small island countries, countries with low-lying coastal, arid and semi-arid areas or areas liable to floods, drought and desertification and developing countries with fragile mountainous ecosystems are particularly vulnerable to the adverse effects of climate change (UNFCCC, 1992). The Paris Agreement goes further in reference to financing in Article 9.4, to consider the LDCs and SIDS as particularly vulnerable to the adverse effects of climate change and having significant capacity constraints, needing public and grant-based resources for adaptation (UNFCCC, 2015). The GCF has adopted a policy to provide 50% of its funding on adaptation, of which 50% is to be spent in LDCs, SIDS and African states, given the necessity to assist the particularly vulnerable group of countries (GCF, 2020).

This principle of prioritising high vulnerability with low capacity could well be applied to the funding of loss and damage. In its technical paper on loss and damage, the UNFCCC Secretariat states that there is a lack of funding to address loss and damage, and, moreover, a lack of direct access to these funds for those populations and communities who are most climate-vulnerable (UNFCCC, 2019a). It is not always clear, however, how to identify the most vulnerable for support efforts. Vulnerability has always been a very contentious issue, drawing diverse justifications and interpretations in the climate negotiations. For instance, some countries argue that they are having to deal with an increasing number of extreme climatic events affecting their socio-economic development, while others stress their loss of national income due to reductions in the exploration and sale of fossil fuels that support their economies (UNFCCC, 2016c).

The prioritisation of countries for loss and damage finance would need to balance the needs of countries with the lowest indicators of socio-economic development, income and capacity to respond to climate change, and no modern technology, information systems or ability to mobilise resources on their own, with those of countries facing existential threat by the slower onset processes of sea level rise, permanent temperature increases, melting of glaciers and ocean acidification. The countries in this latter group, including SIDS and other low-lying

[4] If Parties can carry out, and be supported to carry out, assessments of the financial needs of their loss and damage response and, to the extent possible, they include this information in biennial update reporting, national communications, NDCs, NAPs (and ultimately biennial transparency reporting falling under the Enhanced Transparency Framework post 2024), the more likely GST conversations on loss and damage finance are to be meaningful. (See also: Chamling Rai and Acharya, 2020.)

[5] It is hoped that a forthcoming Needs Determination Report by the SCF will shed some light on financial needs for responding to climate change in 2021, although it is likely to focus on adaptation and mitigation needs.

coastal states, for example, should be supported regardless of their current levels of socio-economic development, income and capacity.

With high diversity in relation to climate risks and impacts, national income and capacity across developing countries, this subject is a complicated matter to resolve. Often it is glossed over at the climate talks due to internal disagreements among the developing countries themselves. This debate and the grouping together of all 'developing countries' are likely to emerge again in negotiations as the process begins to map out the larger 2025 climate finance goal, from a baseline of $100 billion.

5.3 The roles of different sources of finance in averting, minimising and addressing loss and damage are not clear

Modelling of climate finance needs is not always accompanied by an understanding of the roles of different sources of finance and how they may interact. These challenges will also be faced for loss and damage finance. As estimates of loss and damage finance needs emerge, it will be necessary to consider which funding sources are most appropriate.

In the context of historical responsibility for climate change and common but differentiated responsibilities, developed countries have obligations to finance climate change adaptation and mitigation action in developing countries (Article 9). The Paris Agreement further urges consideration of the need for public and grant-based resources for adaptation and for the particularly vulnerable (Article 9.4). Developing countries that are in a position to do so are encouraged to provide support voluntarily, which acknowledges the differing capabilities among developing countries (Article 9.2).

International public finance for climate action can be characterised by three major channels: multilateral climate change funds, multilateral development banks (MDBs) and bilateral public finance channels. It is noted that international public finance also flows through regional and national development finance institutions, which includes south–south flows. Finance for addressing loss and damage is not, however, separately recognised within multilateral climate change funds or bilateral climate finance support or by MDBs (UNFCCC, 2019a).

Multilateral climate change funds pool contributor resources for programming in developing countries. They exist both within (e.g. GCF, Adaptation Fund) and outside of (e.g. Climate Investment Funds) the UNFCCC financial mechanism. A newly dedicated multilateral fund for loss and damage would take many years to develop – the GCF took five years to get to operationalisation – and is currently politically infeasible.

The operating entities of the financial mechanism of the Convention could be requested to consider or support finance for loss and damage under their own mandates. To do so, however, they would need to ensure they have adequate technical capacity to review proposals, to make use of existing accredited entities to deliver them and to appropriately monitor their impacts. The GCF has been invited to continue to fund loss and damage, though, through its existing funding windows (rather than through a discrete window for finance on loss and damage, as called for by some Parties at COP25). While the Global Environment Facility (GEF) and GCF are both found to have the capacity to provide dedicated loss and damage financing – although their operations diverge in instruments, scale and access modalities (Richards and Schalatek, 2017) – it is currently not politically feasible for these funds to separate or identify loss and damage finance. This is especially the case for multilateral funds that sit under the Convention and Paris Agreement.

It is more likely, therefore, that in the short term a multilateral mechanism established outside of the UNFCCC financial mechanism could provide a learning function.

The **MDBs** provide concessional finance to the poorest countries and less-concessional finance to others. Concessional MDB flows are usually funded through developed country contributions (and retained earnings), while less-concessional flows are funded through contributions and borrowed capital (on favourable terms given that the MDBs' shareholders can be called upon should recipients not be able to meet their financial obligations) (UNFCCC, 2016d). MDBs have experience in funding instruments that might be considered part of a risk management approach for loss and damage – for example, catastrophe bonds, supporting risk pooling mechanisms and parametric insurance and contingency finance. They are, therefore, likely to play an important role in financing loss and damage, although eligibility for access to finance from the MDBs does not necessarily align with the developing country categories of the Convention and may reduce concessionality or introduce barriers to access for some of the countries most in need of loss and damage finance.

Developed countries could further mobilise their **bilateral cooperation** agencies to engage in financing for loss and damage. These arrangements tend to have greater flexibility for engaging with the appropriate implementing entities, via the identified financial instruments, to meet the needs outlined in Chapter 2. These flows have high levels of concessionality and are therefore well placed to support information gathering, data analysis, capacity-building and testing of responses and financial instruments for loss and damage, which will help in establishing best practice through identifying what works and what doesn't.

Multilateral climate change funds, MDB climate finance and bilateral cooperation climate finance flows are significantly smaller than domestic finance flows and private finance flows. However, these international public finance flows can also be used as a catalyst to mobilise larger flows of public and private finance towards (or at least to align flows with) a loss and damage response.

National governments can be supported by international public finance flows to take forward loss and damage response plans, for example. They can be supported to build knowledge and institutional capacity, so as to develop and embed loss and damage within climate policy frameworks in a coherent manner. In doing so, they can also understand better the role of **domestic policy**, **regulation** and **finance** in the loss and damage finance response. It is important to note that this is not an argument for transferring responsibility for financing loss and damage to developing country Parties. Rather it acknowledges a complementary role between financing sources and putting finance to work in the most efficient and effective ways possible.

National governments can put in place fiscal policies to manage climate risks. These include policies to create contingency funds, contingent credit lines and catastrophe bonds, for example, but can also be extended to include policies that direct public spending on social protection policies. They can also proactively subsidise insurance or subsidise interest rates that support averting, minimising and addressing loss and damage. These actions can extend to regional levels where appropriate; an example would be multi-country risk pooling, where countries pay premiums, and pay-outs create budget liquidity in the immediate aftermath of rapid-onset events, operating on the likelihood that not all countries in the risk pool will be hit concurrently. Depending on needs, it is worth noting that the establishment and operation of such interventions may or may not be supported by international public finance.

Many different **private sector actors** are likely to play a role in financing loss and damage. Such actors, and the mechanisms through which they finance loss and damage, are diverse; including private households, corporations and businesses, banks, investors and other

financial institutions. Insurance companies can transfer risks,[6] and corporations might finance loss and damage responses in their comprehensive risk management in day-to-day business operations. Governments can further support and incentivise the management of loss and damage risk, which could further shift private finance flows towards averting, minimising and addressing loss and damage.

A number of innovative mechanisms have been proposed as sources of finance for loss and damage. These seek to avoid competition with public finance and, in particular, official development assistance (ODA). Examples include aviation levies, financial transaction taxes and a climate damages tax (Richards and Schalatek, 2017; Stamp Out Poverty, 2018). These are not new proposals, however (note, for example, the High-level Advisory Group on Climate Finance, 2010), and many would face political challenge in their establishment, even before finance could be earmarked for loss and damage. A newer proposal in the wake of the COVID-19 pandemic is debt-for-climate swaps (Picolotti et al., 2020). While it would remain highly complicated in implementation, likely requiring significant multilateral cooperation, strong conditionalities and associated monitoring and verification, it is increasing in visibility as it recognises the high indebtedness and likelihood of default of many climate-vulnerable countries.

Loss and damage finance will likely come from multiple sources. This further suggests a strong role for public actors and public finance, with international public finance that is highly concessional in nature playing a key role in the most vulnerable countries. Such highly concessional international public finance can support capacity-building, technology transfer and research. This will build experience and knowledge in an area that has been largely marginalised. Such international public flows can catalyse and be coupled with other sources of investment capital to address loss and damage response needs, with the aim of leading to changes in the way that climate risks are managed, both in the real economy and in the supporting financial systems.

5.4 The current climate finance architecture does not necessarily have the right framework and expertise to programme loss and damage finance

The operating entities of the financial mechanism of the Convention – the Adaptation Fund, the GEF and the GCF – do not have explicit mandates to fund activities that address loss and damage. While some may have relevant processes, knowledge and experience of how projects and programmes for loss and damage might be carried out, this is not necessarily the full suite of knowledge needed to support an appropriate or effective loss and damage response.

The investment and results frameworks that funds of the financial mechanism have in place ensure and measure outcomes from mitigation and adaptation perspectives. For instance, under the GCF, the independent Technical Advisory Panel (iTAP), which is appointed to assess funding proposals, assesses projects from an adaptation and mitigation viewpoint. Currently, there is no authority or expertise in place to assess funding proposals that include a loss and damage element. Furthermore, the accredited entities to the Adaptation Fund, GEF and GCF – through which projects are implemented – have expertise that focuses on

[6] It should be noted that while insurance has been a focus of loss and damage finance, it is not a panacea. There are limits to insurance, it remains poorly suited to slow-onset processes and it may be subject to moral hazard. Furthermore, there should be adequate mechanisms to ensure access to insurance by the poorest, including possible financial support for their premiums.

adaptation or mitigation actions (and even then do not necessarily have the capacity or resources to address the full suite of mitigation and adaptation actions needed).

At COP25 in Madrid, SIDS and LDCs advocated for COP guidance to the GCF on the opening of a new window to fund loss and damage. At the end of the day, this request was reduced to inviting the Board of the Green Climate Fund 'to continue providing financial resources for activities relevant to averting, minimizing and addressing loss and damage in developing country Parties, to the extent consistent with the existing investment, results framework and funding windows and structures of the GCF, and to facilitate efficient access in this regard, and in this context to take into account the strategic workstreams of the five year rolling work plan of the Executive Committee of the WIM associated with Climate Change Impacts' (UNFCCC, 2019c: Decision 12/ CP25). As outlined above, this means that loss and damage will be considered under the GCF's existing themes, which runs the risk of failing to deliver effective loss and damage finance.

5.5 It is hard to differentiate loss and damage finance from development and humanitarian finance

Differentiating loss and damage finance from other assistance is a complex matter. Activities and actions funded through development assistance and humanitarian aid are likely to have overlaps with climate finance, and specifically adaptation finance (Richards and Schalatek, 2017).

Humanitarian aid largely covers the material and logistical assistance provided to people and communities in the event of, for example, natural disasters, wars and famine. Natural disasters may also comprise climate-induced disasters, but often these events are not perceived from the viewpoint of climate science and justice. Humanitarian aid is provided voluntarily, and often spontaneously and over a short term, to overcome undesirable events and situations in a given location. There is no contractual obligation or understanding of 'fair share', but rather a moral obligation to fellow humans. Humanitarian aid has frequently fallen short of needs, however, with few funding appeals reaching 100%.

Development finance is given by richer countries and other agencies to support economic, social, environmental, cultural and political development in eligible developing countries. Developed countries have been providing ODA since 1969, defined by the OECD Development Assistance Committee (DAC) as government aid that promotes and specifically targets the economic development and welfare of developing countries. Recently, the OECD DAC noted that the OECD members self-reported $152.8 billion of ODA in 2019 alone (OECD, 2020). ODA is often designed to meet longer-term objectives, such as alleviating poverty, achieving food security and attaining economic and political stability, with the OECD members themselves largely designing the scope, modality and eligibility criteria for the support. This support is voluntary in nature and based on a moral, rather than historical, responsibility that gives rise to an obligation to provide financial support. DAC donors have committed to use 0.7% of their gross national income as ODA, although, historically, few have met this target (OECD, n.d.).

Climate finance lacks an agreed definition under the UNFCCC. It broadly refers to support provided for climate actions in developing countries, including for adaptation and mitigation, and is driven by an obligation under the UNFCCC based on the historical responsibility of developed countries. All developing countries are eligible for climate finance as defined by the Convention and the Paris Agreement, which is wider than development finance eligibility. Climate finance mobilisation goals also include both public and private finance, although exactly what counts differs among stakeholders (Bodnar et al., 2015). The OECD estimated

that international climate finance flows totalled $75.1 billion a year in 2017–2018, of which $58.4 billion a year was public climate finance flows (OECD, 2020). Oxfam (2020), however, using a stricter definition, identified $59.5 billion a year of international public climate finance flows in 2017–2018, with a bias in spending towards mitigation – only 25% of this figure supported adaptation – and a significant proportion of this amount was provided as (concessional) loans.

Loss and damage finance is largely seen as support that is provided as a result of needs attributed to climate change and that is delivered following the principles of equity, justice and historical responsibility, guided by scientific findings and conclusions. This interpretation is, therefore, what separates it from development assistance and humanitarian aid, but embeds it in climate finance, despite its exact definition still being a work in progress.

Despite these broadly describable characteristics, there remain challenges in identifying the boundaries between humanitarian, development and climate finance (see also Watson, 2016; Watson et al., 2015). This has been especially challenging for development and adaptation finance, where the pursuit of a clear adaptation or climate rationale in processes to access climate finance, for example, has caused debate and led to delays and project rejections (Climate Analytics, 2020; GCF, 2018; Devex, 2018). While this, in part, reflects that there are no clear buckets to receive funding at national and subnational levels, the lack of clear definitions – or positive and non-overlapping listings – hinders the programming and tracking of and learning from each source of finance on its own, much less accountability to any goals and commitments. Humanitarian, development and climate finance are all likely to support elements of loss and damage, but without further clarity, it is likely that none do so sufficiently at present.

+ 6. How might the Global Stocktake take loss and damage into account?

Parties to the Paris Agreement have agreed to take loss and damage into account in a collective stocktake in 2023 (and every five years thereafter). Loss and damage is explicitly mentioned in Katowice Decision 19, 'Matters relating to Article 14 [the Global Stocktake] of the Paris Agreement', which outlines the GST as a three-step process comprising information collection and preparation, technical assessment and political assessment (UNFCCC, 2019b). Paragraph 6.b.ii of the decision confirms the presence of loss and damage in the technical phase of the GST. Paragraph 36.e determines that information will be collected on 'Efforts to enhance understanding, action and support, on a cooperative and facilitative basis, related to averting, minimizing and addressing loss and damage associated with the adverse effects of climate change'. The Excom of the WIM is also included in footnote 2, as part of the technical assessment.

The Katowice decisions left many details to further elaborate. Mentions of loss and damage suggest that it will be addressed, as a minimum, in technical dialogues, including by means of 'in-session round tables, workshops or other activities' (UNFCCC, 2019b: Decision 19, para. 6). The constituted bodies to the Paris Agreement, including the WIM Excom, have also been requested to prepare synthesis reports for consideration during the technical assessment phase. Though loss and damage is accepted as a cross-cutting issue of the GST, it remains unclear exactly how information on support, or more specifically loss and damage finance, will be included in the GST (Dagnet et al., 2020; Watson and Roberts, 2019).

The Subsidiary Body for Scientific and Technological Advice and the Subsidiary Body for Implementation will be tasked to develop guiding questions for the GST. Höhne et al. (2019) propose three questions for the GST to answer relating to loss and damage:

- To what extent have Parties enhanced understanding, action and support with respect to loss and damage associated with the adverse effects of climate change?
- What is required for Parties to avert, minimise and address loss and damage associated with the adverse effects of climate change?
- What policies and institutions are available to reduce the risk of loss and damage?

Obergassel et al. (2019) instead consider specific functions of the GST in order to fulfil its role in enhancing climate ambition. They suggest the GST should provide guidance and signal transparency and accountability and knowledge and learning. They further suggest conditions to ensure an effective process includes inclusiveness, political relevance, transparent assessments and both technical assessments and high-level political messages.

Taking into account the Katowice decisions, the insights from Höhne et al. (2019) and Obergassel et al. (2019) suggest that the 2023 GST will be a first step, not a comprehensive assessment of loss and damage. It is likely to lay the groundwork and develop a framework around which discussions on loss and damage support, including finance needs, can be had. While, at a minimum, the GST process will entail the engagement of the WIM Excom, the SCF and the GCF, which should include an assessment of collective loss and damage finance needs and response options, it is unlikely to provide inputs that will respond to the pragmatic challenges around financing for loss and damage outlined here. This highlights a role for independent actors to support and benchmark the official GST process (Box 2).

Box 2 What role is there for independent actors to support and benchmark the GST in understanding progress towards financing loss and damage?

The 2018 Katowice decisions text confirmed that the GST will be 'conducted in a transparent manner and with the participation of non-Party stakeholders' (UNFCCC, 2019b: para. 10). Opportunities for the participation of non-state actors, such as the iGST, include the provision of written submissions as technical input to the GST and active engagement in the technical dialogues (Obergassel et al., 2019).

Two core tasks emerge that independent actors, including the Finance Working Group of the iGST, could usefully engage with to progress meaningful loss and damage finance discussions in the GST:

1. Improve data and information on loss and damage and associated finance and support needs, to support evidence-based decision-making.
High-quality, robust information will support the credibility and legitimacy of the GST process (Dagnet et al., 2020). Supporting countries to assess current and potential loss and damage and to identify response measures, including possible financing sources (this includes elements of capacity-building, research and data collection and analysis), can support rigorous stocktaking. As the GST will be a collective assessment of progress, there is a role for independent actors in supporting both top-down modelling of loss and damage costs and financial needs, as well as bottom-up modelling and understandings on comparable terms. Such work would rely on sufficient competencies of independent actors and would benefit from strong linkages with other capacity-building platforms (e.g. as part of the Santiago Network).

2. Develop a meaningful structure for technical assessment of loss and damage, including for support and finance.
Loss and damage remains a tricky topic within UNFCCC negotiations. A space to discuss both technical *and* political challenges in operationalising support for addressing loss and damage is necessary. While the structure of the technical dialogues of the GST are yet to be fully developed, it is understood that the chairs and co-facilitators of the GST process will need to develop framing questions for the technical phase. Building on Höhne et al. (2019), independent actors could propose a series of questions that structure information in a way to most effectively and efficiently answer questions on collective progress around loss and damage finance and support. Going further in answering these questions, independent actors could provide an important benchmark of collective progress towards its support and finance.

In addition to supporting the GST, the above efforts of independent actors could also support the development of appropriate financing mechanisms – at multiple scales, both domestic and international – to make them most effective and efficient.

7. Conclusion

The reality of loss and damage to the adverse effects of climate change is well founded in science and observation. Mitigation and adaptation will be insufficient to tackle all climate change impacts (IPCC, 2018). It took more than two decades for the UNFCCC to establish the Warsaw International Mechanism for Loss and Damage (WIM), in 2013, and it was only in the Paris Agreement, adopted in 2015, that loss and damage was afforded its own self-standing Article, creating a more solid political legitimacy in the negotiations for loss and damage.

The financing of loss and damage responses – both ex ante and ex post – within the UNFCCC still remains at a nascent stage. Loss and damage has historically and intentionally been separated from finance discussions: it sits outside the commitments for developed countries to collectively mobilise $100 billion per year, from public, private and alternative sources, by 2020. The focus to date has been on identifying possible risk transfer and risk retention instruments, rather than on addressing loss and damage. Under the financial mechanism of the UNFCCC and Paris Agreement, it remains politically infeasible to create a separate multilateral fund to finance loss and damage in the short term.

The GST provides a key opportunity to progress loss and damage financing. In pursuit of a UNFCCC mechanism to finance loss and damage, the Paris Agreement's GST allows for the inclusion of information on loss and damage needs, available funding and best practice in its input and technical assessment phases. The political phase of the GST can then initiate high-level discussions that could form the basis of a forward-looking, learning-by-doing approach to financing loss and damage.

The five practical challenges outlined in this paper, summarised in Table 1, demonstrate that there are gaps to be filled in understanding before the 'right' loss and damage funding mechanism can be proposed. Within the phases of the GST, there is scope to gather information on and reinforce options to finance loss and damage, both inside and outside the UNFCCC financial mechanism. These might include UN or other institution-based funds, regional and national funds for loss and damage, or bilateral arrangements that make use of existing or new institutions.

Ultimately, loss and damage finance will entail a range of sources and instruments. Iteratively learning what works, in combination with a strong process to facilitate learning-by-doing and mandated assessment, will be required to progress without awaiting full information on a perfectly designed architecture (which is likely to be different for each context). Such a learning-by-doing approach could be supported by the WIM expert group on 'action and support'.[7] Capitalising on the opportunity to review progress systematically, including through the second GST (2028), creates an adaptive learning process towards the financing of loss and damage in the most efficient and effective way.

Independent actors can support the official GST process and offer an unofficial benchmark of progress. Given the historical resistance to including the issue of loss and damage in the international climate change discussions, such actors have an important role to play in shining a much brighter light on the subject. They can support the better articulation of finance needs and appropriate sources of finance for loss and damage – particularly the role of international

[7] This relies on its mandate being extended at the next COP. It is acknowledged that, based on the current Decision, the expert group is only mandated to clarify how developing countries' access to existing GCF funds and existing financial resources for loss and damage can be facilitated.

concessional public finance flows – as well as support the GST to ask the right questions towards a meaningful collective assessment of progress. In doing so, this can support the development of a range of options and a process of learning on how to finance loss and damage in an effective way.

+ References

AOSIS – Alliance of Small Island States (1991) 'Submission on behalf of AOSIS: Draft annex relating to Article 23 (Insurance) for inclusion in the revised single text on elements relating to mechanisms'. Intergovernmental Negotiating Committee for a Framework Convention on Climate Change: Working Group II, Vanuatu (A/AC.237/WG.II/Misc.13)

Bodnar, P., Brown, J. and Nakhooda, S. (2015) *What counts: tools to help define and understand progress towards the $100 billion climate finance commitment.* WRI, Climate Policy Initiative and ODI (https://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/9807.pdf)

Burkett, M. (2016) 'Reading between the red lines: loss and damage and the Paris outcome' *Climate Law* 6(1–2), University of Hawai'i Richardson School of Law Research Paper No. 3303680 (https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3303680)

Chamling Rai, S. and Acharya, S. (2020) *Anchoring L&D in enhanced NDCs*. Gland: WWF (https://wwf.panda.org/?955216/Loss-damage-NDCs)

Climate Analytics (2020) *Enhancing the climate rationale for GCF proposals*. Impact briefing. Climate Analytics (https://climateanalytics.org/media/enhancing_the_climate_rationale_in_gcf_proposals_final_03.30.2020.pdf)

Dagnet, Y., LePrince-Ringuet, N., Mendoza, J.M. and Thwaites, J. (2020) *A vision for a robust global stock take.* WRI, Climate Works (https://files.wri.org/s3fs-public/vision-for-robust-global-stocktake-issue-brief_2.pdf)

Devex (2018) 'DevExplains: green climate funds'. Webpage (https://www.devex.com/news/devexplains-green-climate-funds-91802)

GCF – Green Climate Fund (n.d.) 'Governing Instrument for the Green Climate Fund'. Incheon: GCF (https://www.greenclimate.fund/sites/default/files/document/governing-instrument.pdf)

GCF (2018) 'GCF Adaptation Rationale Workshop'. Incheon: GCF (https://www.greenclimate.fund/event/gcf-adaptation-rationale-workshop)

GCF (2020) *Catalysing action and finance for country adaptation priorities*. GCF in Brief: Adaptation Planning. Incheon: GCF (https://www.greenclimate.fund/sites/default/files/document/gcf-brief-adaptation-planning_1.pdf)

High-level Advisory Group on Climate Finance (2010) *Report of the Secretary-General's High-level Advisory Group on Climate Change Financing*. New York: United Nations (/www.cbd.int/financial/interdevinno/un-climate-report.pdf)

Hoffmaister, J.P., Talakai, M., Damptey, P. and Soares Barbosa, A. (2014) Warsaw International Mechanism for loss and damage: moving from polarizing discussions towards addressing the emerging challenges faced by developing countries. TWN Opinion Piece, 8 January. Third World Network (www.twn.my/title2/climate/info.service/2014/cc140101.htm)

Höhne, N., Jeffery, L., Nilsson, A. and Fekete, H. (2019) *Guiding questions for the Global Stocktake under the Paris Agreement.* NewClimate Institute. Part of the iGST Designing a Robust Stocktake Discussion Series (www.climateworks.org/wp-content/uploads/2020/05/Guiding-Questions-for-the-Global-Stocktake_iGST_NewClimate.pdf)

IPCC – Intergovernmental Panel on Climate Change (2014) *Climate Change 2014: impacts, adaptation, and vulnerability. Part A: Global and sectoral aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Field, C.B. et al. (eds.)]. Cambridge: Cambridge University Press.

IPCC (2018) 'Summary for policymakers' in Masson-Delmotte, V. et al. (eds.) *Global warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty*. Geneva: World Meteorological Organization. (https://report.ipcc.ch/sr15/pdf/sr15_spm_final.pdf#page=16)

IPCC (2019) *IPCC Special Report on the ocean and cryosphere in a changing climate*. Geneva: IPCC (/www.ipcc.ch/srocc/)

Mace, M. and Verheyen, R. (2016) 'Loss, damage and responsibility after COP21: all options open for the Paris Agreement' *Review of European, Comparative and International Environmental Law* 25(2): 197–214. (www.researchgate.net/publication/305695003_Loss_Damage_and_Responsibility_after_COP21_All_Options_Open_for_the_Paris_Agreement)

Markandya, A. and González-Eguino, M. (2018) 'Integrated assessment for identifying climate finance needs for loss and damage: a critical review' in R. Mechler et al. (eds) *Loss and damage from climate change. Concepts, methods and policy options*. Cham: Springer, pp. 343–362 (https://link.springer.com/chapter/10.1007/978-3-319-72026-5_14)

Morrissy, J. and Oliver-Smith, A. (2013) *Perspectives on non-economic loss and damage: understanding values at risk from climate change*. Bonn: Germanwatch (www.researchgate.net/publication/289130103_Perspectives_on_non-economic_loss_and_damage_Understanding_values_at_risk_from_climate_change)

Obergassel, W., Hermwille, L., Siemons, A. and Förster, H. (2019) *Success factors for the Global Stocktake under the Paris Agreement.* Wuppertal Institute for Climate, Environment, Energy. Part of the iGST Designing a Robust Stocktake Discussion Series (www.climateworks.org/wp-content/uploads/2020/05/Success-Factors-for-the-Global-Stocktake_iGST_Wuppertal.pdf).

OECD – Organisation for Economic Cooperation and Development (n.d.) 'Official Development Assistance*'.* Webpage. Paris: OECD (www.oecd.org/development/financing-sustainable-development/development-finance-standards/official-development-assistance.htm).

OECD (2020) *Climate finance provided and mobilised by developed countries in 2013–18.* Paris: OECD (.www.oecd.org/environment/climate-finance-provided-and-mobilised-by-developed-countries-in-2013-18-f0773d55-en.htm)

Otto, F., James, R. and Allen, M. (2016) *The science of attributing extreme weather events and its potential contribution to assessing loss and damage associated with climate change impacts.* Oxford: Environmental Change Institute (https://unfccc.int/files/adaptation/workstreams/loss_and_damage/application/pdf/attributingextremeevents.pdf).

Oxfam (2020) *Climate finance shadow report 2020: assessing progress towards the $100 billion commitment*. Oxford: Oxfam GB (https://oxfamilibrary.openrepository.com/bitstream/handle/10546/621066/bp-climate-finance-shadow-report-2020-201020-en.pdf)

Pickering, J., Jotzo, F. and Wood, P. (2015) 'Sharing the global climate finance effort fairly with limited coordination' *Global Environmental Politics* 15(4): 39–62 (www.mitpressjournals.org/doi/abs/10.1162/GLEP_a_00325)

Picolotti, R., Zaelke, D., Silvermand-Roati, K. and Ferris, T. (2020*)* 'Debt-for-climate swaps: IGSD Background Note'*.* Washington DC: Institute for Governance and Sustainable Development (www.igsd.org/wp-content/uploads/2020/08/Background-Note-on-Debt-Swaps-11Aug20.pdf).

Richards, J.A. and Schalatek, L. (2017) *Financing loss and damage: a look at governance and implementation options.* Washington DC: Heinrich Boell Stiftung (www.boell.de/sites/default/files/loss_and_damage_finance_paper_update_16_may_2017.pdf?dimension1=Division_OEN).

Roberts, E. and Pelling, M. (2019) 'Loss and damage: an opportunity for transformation?' *Climate Policy* 20(6): 758–771 (https://doi.org/10.1080/14693062.2019.1680336).

Roberts, J.T. and Weikmans, R. (2017) 'Postface: fragmentation, failing trust and enduring tensions over what counts as climate finance' *International Environmental Agreements: Politics, Law and Economics* 17: 129–137 (https://doi.org/10.1007/s10784-016-9347-4).

Schäfer, L., Jorks, P., Seck, E. et al. (2021a) *Slow-onset processes and resulting loss and damage: an introduction.* Bonn: Germanwatch (www.germanwatch.org/sites/germanwatch.org/files/FINAL_Slow-onset%20paper%20Teil%201_20.01.pdf).

Schäfer, L., Jorks, P., Seck, E. et al. (2021b) *National and international approaches to address loss and damage from slow-onset processes: status quo, challenges, and gaps.* Bonn: Germanwatch.

Schalatek, L. and Watson, C. (2020) *The Green Climate Fund*. Climate Finance Fundamentals Series. Climate Funds Update, ODI and HBS (https://us.boell.org/sites/default/files/2021-03/CFF11%20-%20ENG%202020%20-%20Digital.pdf).

Schinko, T., Mechler, R. and Hochrainer-Stigler, S. (2016) 'The risk and policy space for loss and damage: integrating notions of distributive and compensatory justice with comprehensive climate risk management' in R. Mechler et al. (eds) *Loss and damage from climate change*, *Concepts, methods and policy options*. Cham: Springer, pp. 83–110 (https://link.springer.com/chapter/10.1007/978-3-319-72026-5_4).

Stamp Out Poverty (2018) *The Climate Damages Tax: a guide to what it is and how it works.* London: Stamp Out Poverty (www.stampoutpoverty.org/live2019/wp-content/uploads/2019/06/CDT_guide_web23.pdf).

UNFCCC – United Nations Framework Convention on Climate Change (1992) *United Nations Framework Convention on Climate Change.* Bonn: UNFCCC (https://unfccc.int/resource/docs/convkp/conveng.pdf).

UNFCCC (2009) *Copenhagen Accord*. Bonn: UNFCCC (https://unfccc.int/resource/docs/2009/cop15/eng/l07.pdf).

UNFCCC (2014) *Report of the Conference of the Parties on its nineteenth session, held in Warsaw from 11 to 23 November 2013. Addendum part two: action taken by the Conference of the Parties at its nineteenth session.* Bonn: UNFCCC (https://unfccc.int/sites/default/files/resource/docs/2013/cop19/eng/10a01.pdf).

UNFCCC (2015) *Paris Agreement*. Bonn: UNFCCC (https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement).

UNFCCC (2016a) *Report of the Conference of the Parties on its twenty-first session, held in Paris from 30 November to 13 December 2015. Addendum part two: action taken by the Conference of the Parties at its twenty-first session.* Bonn: UNFCCC (https://unfccc.int/sites/default/files/resource/docs/2015/cop21/eng/10a01.pdf).

UNFCCC (2016b) 'Highlights of the 2016 SCF Forum'. Bonn: UNFCCC Secretariat (https://unfccc.int/files/cooperation_and_support/financial_mechanism/standing_committee/application/pdf/scf2016_forum_highlights.pdf).

UNFCCC (2016c) *Guidance to assist developing country Parties to assess the impact of the implementation of response measures, including guidance on modelling tools.* Technical paper by the Secretariat. Bonn: UNFCCC (https://unfccc.int/resource/docs/2016/tp/04.pdf).

UNFCCC (2016d) *2016 Biennial assessment and overview of climate finance flows report*. Bonn: UNFCCC (https://unfccc.int/files/cooperation_and_support/financial_mechanism/standing_committee/application/pdf/2016_ba_technical_report.pdf).

UNFCCC (2019a) *Elaboration of the sources of and modalities for accessing financial support for addressing loss and damage.* Technical paper by the secretariat. Bonn: UNFCCC (https://unfccc.int/sites/default/files/resource/01_0.pdf).

UNFCCC (2019b) *Report of the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement on the third part of its first session, held in Katowice from 2 to 15 December 2018. Addendum part two: action taken by the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement.* Bonn: UNFCCC (https://unfccc.int/sites/default/files/resource/CMA2018_03a02E.pdf).

UNFCCC (2019c) *Report of the Conference of the Parties on its twenty-fifth session, held in Madrid from 2 to 15 December 2019. Addendum part two: action taken by the Conference of the Parties at its twenty-fifth session.* Bonn: UNFCCC (https://unfccc.int/documents/210476).

UNFCCC (2020a) *Report of the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement on its second session, held in Madrid from 2 to 15 December 2019. Addendum part two: action taken by the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement at its second session.* Bonn: UNFCCC (https://unfccc.int/sites/default/files/resource/cma2019_06a01E.pdf).

UNFCCC (2020b) 'Twelfth meeting of the Executive Committee of the Warsaw International Mechanism for Loss and Damage associated with Climate Change Impacts, Bonn, Germany, 12–16 October 2020'. Bonn: UNFCCC (https://unfccc.int/sites/default/files/resource/Excom12_%20placement_agenda%20item_3.pdf).

UN OHCHR – Office of the United Nations High Commissioner for Human Rights (2019) *Report of the Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment.* Geneva: OHCHR (https://undocs.org/A/74/161)

Vanhala, L. and Hestbaek, C. (2016) 'Framing climate change loss and damage in UNFCCC negotiations' *Global Environmental Politics* 16(4): 111–120 (www.mitpressjournals.org/doi/pdf/10.1162/GLEP_a_00379).

Vanuatu (2018) 'Submission by the Republic of Vanuatu'. Executive Committee of the Warsaw International Mechanism for Loss and Damage of the UNFCCC (https://unfccc.int/files/adaptation/workstreams/loss_and_damage/application/pdf/vanuatu_submission.pdf).

Verheyen, R. (2012) *Tackling loss and damage: a new role for the climate regime?* Bonn: Germanwatch (http://www.geo.uzh.ch/~chuggel/files_download/phd_colloquium/verheyen_tackling_loss_damage_cdkn12.pdf).

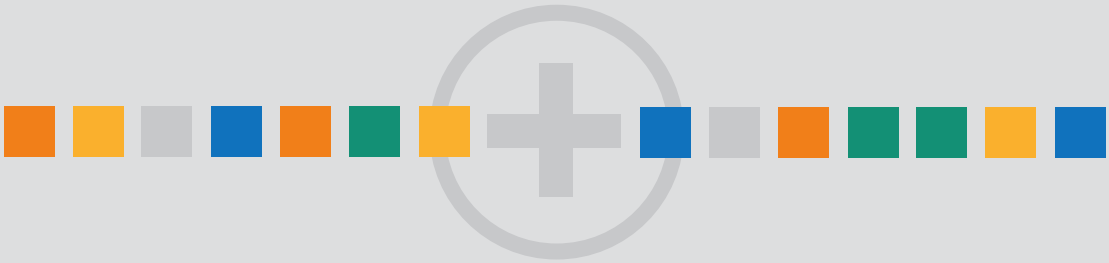
Watson, C. (2016) *Financing our shared future: navigating the humanitarian, development and climate finance agendas.* London: ODI (www.odi.org/sites/odi.org.uk/files/resource-documents/11228.pdf).

Watson, C. and Roberts, L. (2019) *Understanding finance in the Global Stocktake*. London: ODI and Independent Global Stocktake (www.odi.org/publications/16513-understanding-finance-global-stocktake).

Watson, C., Caravani, A., Mitchell, T. Kellett, J. and Peters, K. (2015) *Finance for reducing disaster risk: 10 things to know.* London: ODI (www.odi.org/publications/9248-finance-reducing-disaster-risk-10-things-know-full-report).

Weikmans, R. and Roberts, J.T. (2019) 'The international climate finance accounting muddle: is there hope on the horizon?' *Climate and Development* 11(2): 97–111 (https://doi.org/10.1080/17565529.2017.1410087).

White, H., Raffety, K., Schäfer, L. and Stabinsky, D. (2020) *Designing the Santiago Network for Loss and Damage.* PreventionWeb (https://www.preventionweb.net/news/view/74948).



Learn more:

www.independentgst.org