THINK TANK & RESEARCH

POLICY BRIEF

Steps towards closing the Loss&Damage finance gap

Recommendations for COP25

- FIRST VERSION -

Laura Schäfer and Vera Künzel

GERMANWATCH

Brief Summary

This paper **emphasizes the urgency for tangible action in dealing with Loss&Damage (L&D)** and highlights, that in 2019 we still face a lack of adequate action and support for L&D under the UNFCCC. Seven technical and political challenges with regard to climate finance for L&D are identified. The paper shows that where international climate diplomacy doesn't advance fast enough to support the already affected people, they start to take the legal avenue to address the problem of L&D.

The paper concludes with the need for a finance facility for L&D and formulates key steps on the way to its establishment and **provides concrete recommendations for decisions that need to be taken at COP25.** With the aim to eventually set up a finance facility for L&D, the COP25 needs to agree on 1) A COP decision to establish an ExCom expert group on action and support. 2) A COP decision on ExCom priorities for 2020 to strengthening their engagement towards closing the L&D Finance gap.

Imprint

Authors:
Laura Schäfer and Vera Künzel

Contributers:
Christoph Bals, Rixa Schwarz, David Eckstein and Julia Grimm

Layout:
Hanna Fuhrmann

Publisher:
Germanwatch e.V.

Office Bonn:
Kaiserstr. 201
D-53113 Bonn
Phone +49 (0)228 / 60 492-0, Fax -19

Office Berlin:
Stresemannstr. 72
D-10963 Berlin
Phone +49 (0)30 / 28 88 356-0, Fax -1

Internet: www.germanwatch.org
E-mail: info@germanwatch.org

November 2019

Purchase order number: 19-2-08e
This publication can be downloaded at: **www.germanwatch.org/en/17312**

This policy brief is part of a more comprehensive process to address questions around L&D finance. It is a first version and serves as input to COP25 and as a starting point for discussions. Comments are welcome. Please contact schaefer@germanwatch.org and kuenzel@germanwatch.org.

german cooperation
DEUTSCHE ZUSAMMENARBEIT

Supported by Engagement Global with Funding from Federal Ministry for Economic Cooperation and Development. Germanwatch is responsible for the content of this publication.

Content

1 Building the argument for a Loss&Damage finance facility

This paper…

…emphasizes the urgency for tangible action in dealing with Loss&Damage (L&D). L&D due to climate change impacts is already a reality, not only but most existentially for vulnerable developing countries and communities around the world and creates a real climate crisis for millions of people. The lives and livelihoods due to climate change impacts have been grossly underestimated. Poor and vulnerable countries need to be supported in dealing with unavoidable L&D. This includes support for both, minimizing and addressing L&D ex-ante and ex-post.

…highlights, that in 2019 we still face a lack of adequate action and support for L&D under the UNFCCC. Current estimates indicate financial damage of at least 290 – 580 billion USD by 2030 for developing countries – not including non-economic losses such as loss of biodiversity and of cultural sites. An analysis of current potential financial means for L&D reveals seven challenges: 1) including that the scarce funding available is mainly for measures minimizing L&D ex-ante, aiming at reducing the residual risk of future economic L&D that cannot or will not be avoided through mitigation and/or adaptation. 2) There is so far very little funding with regard to actually addressing irreversible impacts that could not or were not avoided. 3) There is little to no funding for dealing with non-economic losses, both ex-ante and ex-post. 4) The funding already provided outside the UNFCCC regime to address L&D is by far not sufficient – the international community faces a humanitarian as well as a development funding gap. 5) We see first indications of a disaster support fatigue of a world and media facing more and more intense disasters. Additionally applied instruments like insurance solutions are important but are already reaching their limits. 6) The little available financial support for L&D does not follow core justice principles for international relations; in particular, the polluter pays principle and the principle of common but differentiated responsibilities. 7) Dynamics in the UNFCCC L&D Finance debate is weak due to developed countries fear of a bottomless compensation mechanism. Above that, the lack of an officially accepted definition for L&D provides a gateway to blur boundaries to adaptation.

…shows that where international climate diplomacy doesn't advance fast enough, affected people start to take the legal avenue to address the problem of L&D and bring up historical examples where affected people amplify the pressure to act on political decision makers and corporate actors by using legal avenues, resulting in the creation of a fund to deal with the problem.

…concludes the need for a finance facility for L&D and formulates key steps on the way to its establishment. One way to address the L&D finance question could be the establishment of a finance arm for the Warsaw International Mechanism for Loss and Damage (WIM) based on both, compensatory and distributive justice principles. The finance arm would consist of a finance facility and a technical committee/expert group. There are several steps necessary for establishing such a finance arm of the WIM.

1) A **room to discuss L&D finance** through an Executive Committee (ExCom) expert group on action and support and a standing agenda item on L&D;
2) An annual stocktake of national L&D finance needs and funding available in a **L&D finance gap report**;

3) Analysis of **potential financing approaches for L&D, including innovative sources of finance** that may generate additional resources and testing them against human-rights-based principles;
4) Analysis of **possibilities for a finance facility for L&D** within existing institutions or the need for new institutions.

...provides concrete recommendations for decisions that need to be taken at COP25. COP25 needs to address the issue of L&D finance prominently. With the aim to eventually set up a finance facility for L&D, the COP25 needs to decide on tangible next steps in approaching a solution for L&D finance. The WIM review needs to ensure that the WIM is fit to effectively assist vulnerable countries in dealing with L&D and meet their needs – also with regard to future L&D.

Recommendation 1: A COP decision to establish an ExCom expert group on action and support.

Recommendation 2: A COP decision on ExCom priorities for 2020. The COP25 should decide that the ExCom in 2020 prioritizes work in the following areas and delivers clear recommendations for concrete actions by COP26:

a) possibilities for a finance facility for L&D within existing UNFCCC institutions or the need for new institutions;
b) potential financing approaches for L&D, including innovative sources of finance that may generate additional resources and testing them against human-rights-based principles;
c) an assessment of best practice in developing countries to address Loss &Damage and how funding can reach the most vulnerable.

1.1 Argument 1: Loss&Damage creates a real climate crisis for millions in vulnerable developing countries –the risks to lives and livelihoods due to climate change impacts have been grossly underestimated

Signs of an escalating climate crisis can no longer be ignored – on all continents, in all regions. A number of climate change impacts like increasingly intense and frequent extreme weather events (e.g. heat waves or heavy rain) and slow-onset processes (e.g. sea level rise and glacier melting) are emerging much faster than scientists anticipated.[1] With increasing reliability, attribution science can show that climate change is a driver for the observed frequency, intensity, and duration of some extreme weather events[2] and slow onset events. Human populations are already being forced to adapt to these impacts but there are limits to their capacity to do so. Therefore, Loss&Damage (L&D)[3] due to climate change impacts is already a reality, not only but most existentially for vulnerable developing countries and communities around the world and creates a real climate crisis for

1Oreskes et al. 2019.
[2] Committee on Extreme Weather Events and Climate Change Attribution et al. 2016
3 We understand L&D 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, and that must be addressed at the international level under the climate regime due to the equities involved" (Mace/Verheyen 2016). Multiple factors contribute to a specific loss or damage. Besides anthropogenic emissions natural modes of climate variability as well as other drivers that influence exposure and vulnerability need to be taken into account. In this paper we focus on climate related L&D.

millions of people. They are more vulnerable to the damaging effects of a hazard (as e.g. their livelihood depends on fewer assets, their consumption is closer to subsistence levels and their health and education are at greater risk) but have lower coping capacity (as they e.g. cannot rely on savings to buffer the impacts and may need more time to rebuild and recover).[4]

Climate change-related losses and damages threaten live and livelihoods, food security, human security and sustainable economic development.[5] Moreover, recent research shows that climate risks worsened access to international capital and increase interest rates resulting in higher indebtedness and lower investment. [6] Between 1999 and 2018, about 495 000 people died worldwide and losses of USD 3.54 trillion (in PPP) were incurred as a direct result of more than 12 000 extreme weather events.[7] The impact of extreme weather push 26 million people into poverty every year.[8]
In June 2019, Hurricanes Idai and Kenneth claimed more than 648 lives in Mozambique and neighboring countries, leaving 1.85 million people in need of humanitarian services.[9] Losses and damages amounted to 3 billion USD.[10] The funding appeal remained far below target (only 39 % of the response got funded) – leaving some of the most vulnerable communities without the support they need to rebuild their lives. The event forced the sixth poorest country in the world to take on an additional 118 million USDin debt.[11] But also losses from slow-onset processes are expected to significantly increase in the future. A recent study triples the estimates of world population threatened by sea level rise[12] – they conclude that by 2050 cities like Mumbai, Ho Chi Minh City and Bangkok are at risk of being wiped out as they would be mostly under water.

More and more new scientific results show that the risks to lives and livelihoods due to climate change impacts have been grossly underestimated as many of the most serious consequences are difficult to quantify and lie outside of human experience.[13] To prevent unprecedented suffering, especially poor people in poor and vulnerable countries – who have contributed least to the climate crisis – need to be supported in dealing with unavoidable L&D.

1.2 Argument 2: Dealing with Loss&Damage needs both, measures to minimize and address Loss&Damage ex-ante and ex-post

Article 8.1 of the Paris Agreement recognizes “the importance of averting, minimizing and addressing loss and damage associated with the adverse effects of climate change”. In averting and minimizing L&D, mitigation and adaptation measures are key. On the one hand, current mitigation commitments urgently need to be significantly ramped up to keep global warming within 1.5 degrees

4 Hallegatte et al. 2017.
5 Ibid.
6 Buhr/Volz 2018.
7 Eckstein et al. 2019.
8 Hallegatte et al. 2017.
9 UNICEF 2019.
10 Mozambique Cyclone Idai 2019.
11 Care et al. 2019.
12 Kulp/ Strauss 2019.
13 DeFries et al. 2019.

and prevent unmanageable climate change.[14] On the other hand, adaptation needs to “moderate or avoid harm”[15] due to expected climate change effects.

L&D measures concern climate change impacts that are expected to materialize as they have not or will not be prevented or minimized by mitigation or adaptation.[16] While mitigation and adaptation can avert L&D, L&D measures themselves are not expected to prevent these impacts altogether.[17] They aim at addressing the addressing the (potential) socio-economic or human effects of actual irreversible impacts.[18]
L&D measures can be applied both, before and after an impact.

- Before an impact **(ex-ante)**, L&D measures aim at addressing the residual risk of irreversible impacts that cannot or will not be avoided through mitigation and/or adaptation.
- After an impact **(ex-post)** L&D measures aim at addressing actual L&D by minimizing or responding to the socio-economic or human effects of actual irreversible impacts. While e.g. rapid reaction can reduce the scale of L&D, addressing L&D aims at responding to irreversible impacts that could not or were not avoided.

Measures for both, minimizing and addressing L&D need to cover both economic as well as non-economic losses and damages. The following table provides an overview of potential measures to minimize and address L&D.

Table 1: Measures to address L&D (risks) ex-ante and ex-post[19]

	Ex-ante L&D measures		Ex-post L&D measures	
	Addressing residual risks of L&D Objective: Addressing the residual risk of L&D that cannot or will not be avoided through mitigation and/or adaptation		Addressing actual L&D Objective: Minimizing and responding to the socio-economic or human effects of irreversible impacts that could not or were not avoided.	
	Economic losses	Non economic losses	Economic losses	Non economic losses
Sudden onset	Risk assessment (to assess the residual risk for L&D, e.g. for displacement) Setting up Financial Risk Transfer Instruments (e.g. Insurance (Index- and indemnity based, incl. Micro insurance, Regional risk pools) and Risk-linked securities (incl. Catastrophe bonds/Climate bonds)) Setting up Risk Retention Solutions (e.g. National and international disaster funds, Contingency funds, Contingency credit, Savings)	Risk assessment	Recovery and Rehabilitation (e.g. finance for the provision of emergency shelter, access to health, water and sanitation, food and livelihood support, access to education and rehabilitation of schools, protection and support for vulnerable groups) - can be financed by payouts of financial risk transfer instruments or through risk retention instruments	Recognition of loss (accompanied by financial payments or not) Active remembrance (e.g. through museum exhibitions, school curricula) Counselling Official apologies

[14] According to Climate Tracker, the Nationally Determined Contributions under the UNFCCC are not consistent with a 1.5°C goal but lead to approximately 4 degrees warming (https://climateactiontracker.org/).
[15] IPCC 2014.
[16] Wallimann-Helmer et al. 2018.
[17] Mace/Verheyen 2016.
[18] Wallimann-Helmer et al. 2018.
[19] Author’s own. Measures taken from ExCom 2019 and Wallimann-Helmer et al. 2018.

	Setting up Social protection schemes Capacity building (for the aforementioned measures)			
Slow onset	Setting up Risk transfer solutions, e.g. via catastrophe bonds			

1.3 Argument 3: In 2019 we still face a lack of adequate action and support for Loss&Damage under the UNFCCC

Minimizing and addressing L&D needs financial means. There are no official and commonly accepted estimates of L&D finance needs and the existing estimates vary significantly. According to the IPCC, AR5 estimates of global annual economic losses for additional temperature increases of ~2 C are incomplete, but lie in the range of between 0.2 and 2.0 % of GDP.[20] Beyond this very general assessment, the following estimates of finance needs for losses and damages exist:

- Markandya/ González-Eguino (2018) estimate (for non-Annex I countries), total residual damages from 116–435 billion USD in 2020, rising to 290–580 billion USD in 2030, 551–1,016 billion USD in 2040 and 1,132–1,741 billion USD in 2050. [21]
- Baarsch et al. (2015) estimate macroeconomic damages for developing countries of around 400 billion USD in 2030 and 1–1.8 trillion USD by 2050.
- UNEP Adaptation Gap Report (2014) estimates the indicative costs of adaptation and the residual damages for Least Developed Countries (LDCs) at around 50 billion USD/year by 2025/2030.[22]

As already mentioned under Argument 1, more and more new scientific results show that the risks to lives and livelihoods due to climate change impacts have been grossly underestimated as many of the most serious consequences are difficult to quantify and lie outside of human experience.[23]

Even if the Executive Committee (ExCom) has already undertaken some activities with regard to L&D finance (e.g. dialogues with different stakeholders and responsible bodies as well as technical papers[24]), 1) no conclusions have been drawn for concrete activities to support countries in minimizing

[20] Field et al. 2014: 14.
[21] Their figures depend on the climate scenario, the discount rate, the assumed parameters of the climate model and the socioeconomic model. The analysis is based on the case where equilibrium temperatures increase by 2.5–3.4 °C, implying some mitigation, but less than is required under the Paris accord. They note that uncertainties regarding these sources are very large and meaningful projections of residual damages in the medium to long-term are not possible.
[22] UNEP 2014.
[23] DeFries et al. 2019.
[24] The Forum of the Standing Committee on Finance (2016) on "Financial instruments that address the risks of loss and damage associated with the adverse effects of climate change"; the WIM ExCom´s side event on risk financing for slow onset events 2017; the "Suva expert dialogue" 2018, an expert dialogue on ways for facilitating the mobilization and securing of expertise and enhancement of support, including finance […] (decision 5/CP.23 para 9); a call for submissions to the Executive Committee on the sources of financial support that Parties and relevant organizations are providing to avert, minimize and address climate induced displacement 2019; a technical paper by the Secretariat on "Elaboration of the sources of and

and addressing actual L&D; 2) the activities mainly focus on ex ante risk reduction as recent analysis points out. On addressing ex post losses and damages the only activities have been oriented around risk transfer mechanisms. [25] Even if the provision of funding by developed countries to address L&D via internationally co-financed insurance solutions can be a solution for some specific problems, the currently existent systems still leaves “a major gap in activities to facilitate provision of finance to particularly vulnerable countries”.[26]

Table 2 summarizes the current potential financial means for L&D, based on the ExCom technical paper on “sources of and modalities for accessing financial support for addressing loss and damage” published in 2019. The analysis includes sources both, inside and outside UNFCCC finance entities. Although no finance entity under the UNFCCC has the official mandate to finance L&D, some of their financed projects have L&D components. The table makes no claim to completeness, a comprehensive analysis of potential financial means for L&D beyond the ExCom paper will follow in a second step.

modalities for accessing financial support for addressing loss and damage”, informed by the Suva dialogue as well as by the submissions, published 2019.

[25] Byrnes/Suminski 2019

[26] Ibid.

Table 2: Available funding to minimize and address L&D provided through funds inside and outside the UNFCCC finance architecture, based on UNFCCC technical paper[27]

<table>
<tr><th rowspan="3"></th><th colspan="2">Ex-ante L&D measures</th><th colspan="2">Ex-post L&D measures</th></tr>
<tr><th colspan="2">Address residual risk of L&D</th><th colspan="2">Address actual L&D</th></tr>
<tr><th>Economic losses</th><th>Non economic losses</th><th>Economic losses</th><th>Non economic losses</th></tr>
<tr><td>Sudden onset</td><td>Risk assessment
● AF: Finances building pre-emptive resilience through risk assessment
● LDCF: Finances certain risk assessment measures
● GCF: Finances projects for risk assessment
● IGP: Finance projects improving climate data and information systems

Setting up Financial Risk transfer
● GCF: several projects linked to risk transfer, including the introduction of a weather index-based insurance program
● SCCF: Technical and regulatory assistance to develop new weather risk insurance and reinsurance products
● IGP: finances projects to set up insurance schemes + development of insurance market, Provide financing for insurance and re-insurance companies which offer insurance solutions against extreme weather events; Provide technical assistance for the preparation and implementation of insurance solutions, Offer capacity building and education
● projects to enable more timely and reliable post-disaster response and to better prepare for climate and disaster risk through the use of climate and disaster risk finance and insurance solutions
● MDBs: The WorldBank helped Governments to transfer a portion of the risk of e.g. a severe drought to the international financial market using weather derivatives. They can play the role of financial intermediary when governments and counterparties require additional capacity

Setting up Social protection schemes
● AF: Finances projects to implement certain social protection measures</td><td></td><td rowspan="2">Recovery and Rehabilitation

● Potential payouts of financial risk transfer instruments (which should be counted as climate finance if premium payments and capitalization of pools were (partly) supported)[28]
● Humanitarian Assistance: Addressing loss and damage from sudden onset, extreme events, and answering emergency appeals.</td><td rowspan="2"></td></tr>
<tr><td>Slow onset</td><td></td><td></td></tr>
</table>

[27] Author's own. Content based on the UNFCCC technical paper "Elaboration of the sources of and modalities for accessing financial support for addressing loss and damage" (UNFCCC 2019). The paper looked at the following available sources of finance: UNFCCC funds (AF, LDCF, GCF), Multilateral climate funds and multilateral development banks, bilateral sources. Abbreviations: Inside UNFCCC: AF = Adaptation Fund; GCF = Green Climate Fund; LDCF= Least Developed Countries Fund; SCCF = Special Climate Change Fund. Outside UNFCCC: IGP = InsuResilience Global Partnership, MDBs = Multilateral Development Banks.

[28] The ExCom paper included no information on potential premium support through finance entities inside and outside UNFCCC. This point will be part of the comprehensive analysis in the next version of this paper.

The analysis of current potential financial means for L&D reveals that developed countries are only open to finance some L&D measures to a very limited extent. However, three key technical challenges with regard to L&D finance can be identified:

Challenge 1: Funding is mainly available (even though in insufficient scales) for ex-ante measures, aiming at reducing the residual risk of future economic L&D that cannot be or will not be avoided through mitigation and/or adaptation. Moreover, the UNFCCC paper classifies risk reduction projects as relevant for L&D, which we would classify as adaptation measures (as the impact can still be avoided).

Challenge 2: There is so far little to no funding with regard to measures minimizing and addressing L&D ex-post, with the objective to minimize the scale of L&D and address irreversible impacts that could not be or were not avoided after an impact materialized.

Challenge 3: There is little to no funding for dealing with non-economic losses, both ex-ante and ex-post.

Additional challenges were identified in a literature review:

Challenge 4: The funding already provided outside the UNFCCC regime to address L&D is by far not sufficient – especially regarding the growing number and intensity of extreme weather events. The High Level Panel on Humanitarian Financing diagnosed a humanitarian funding gap in 2015 of 15 billion USD – this lack of money lead to fatalities and forced people into lives without dignity[29] . Additionally, a development funding gap can be identified as the Official Development Assistance (ODA) which is aimed at 0,7 % of OECD DAC donor countries GNI by 2020 has only reached 0,31 % of the combined GNI of those countries in 2018. And the share of assistance for the neediest countries is even declining[30]. Applied to the Sustainable Development Goals (SDGs) this threshold would not be sufficient to reach them. A report by Oxfam identified an increase of roughly 62,5 % on 2015 ODA levels or an additional 250 Billion USD by 2025 being necessary – complemented by additional funding channels[31].

Challenge 5: Applied instruments to address Loss&Damage, like insurance solutions, are an important component of a broader climate risk management, if designed carefully. However, they face limitations: There is a risk to only focus on people who can afford a premium and therefore potentially increases marginalization of the poor who are not able to do so, while international support for insurance premiums for the poor is so far insufficient. Additionally, not all losses and damages can be covered by insurances, e.g. at least by now the instrument is not suitable to address slow onset processes[32] . Above these limitations, latest experiences show, that ongoing climate change is also changing the circumstances: The insurance industry is already discussing growing climate risks which may be impossible to model and therefore are ultimately uninsurable.[33] According to prime minister of Barbados, devastation by hurricane Dorian on the island state exceeded the capacity of the Caribbean Catastrophe Risk Insurance (CCRIF) to fully address the consequences; in particular it left a gap to finance rebuilding.[34]

[29] High Level Panel on humanitarian financing 2016.
[30] OECD 2019.
[31] Martin/Walker 2015.
[32] Schaefer et al 2016.
[33] Shankelmann 2017.
[34] Prime Minister's Office Barbados 2019.

6: Currently, financial support for L&D does not follow core justice principles for interna-tional relations, fortified by a majority of states in the international community. In particu-lar, the polluter pays principle and the principle of common but differentiated responsibil-ities and capability need to be applied. A lot of countries (France (83%), Germany (62%), or Japan (53.70%) in 2016) provide a substantial share of funding via loans to conces-sional terms. “Loans can play an important role, especially in so called “bankable” projects, where investments deliver a return. However, they still contradict the universal principle of “polluter pays”, as loans have to be repaid”[35]. However, the current practice of most developed countries is to report these instruments at their face value (not the net value of the concessional loan) – making the level of assistance received by developing countries very intransparent.[36] Moreover, a huge part of climate finance is channeled to richer developing countries, primarily due to the increase focus on private investments which are more likely to develiver a return in emerging economies[37].To finance L&D measures grants are needed so that vulnerable countries whose risks of being hit by an extreme event have grown through climate change while they have contributed least to it, do not have to bear the cost (e.g. for insurance premiums) themselves.

A seventh challenge applies to the political circumstances in which L&D finance is discussed:

Challenge 7: It is currently very difficult to get dynamics into the UNFCCC L&D debate. On the one hand, discussions on a solution are not progressing because developed countries fear the establishment of a bottomless compensation mechanism – with no clear estimates of the cost. On the other hand, the lack of an officially accepted definition for L&D allows developed countries to blur the boundaries to adaptation.

1.4 Argument 4: Where international climate diplomacy doesn’t advance fast enough, affected people start to take the legal avenue to address the problem of Loss&Damage

As the climate change impacts are felt already and **international climate diplomacy doesn’t advance fast enough, affected people start to take the legal avenue to address the problem of L&D.** They go to court, claiming the responsibility of large emitters to climate change in terms of liability for L&D. Based on COP decision 1/CP.21, the Paris Agreement and its article 8 on Loss&Damage (L&D) don’t “involve or provide a basis for any liability or compensation” (§51).However, the COP decision “cannot exclude the application of the general rules on liability and compensation between states”– hence, the formulation doesn’t apply to other international duties, international law and national legal systems. Recent years have seen an increase in climate-related litigation claims being brought before the courts by municipalities, public interest organizations, property owners and youth. As of July 2019, more than 1,300 climate change cases had been filed in 28 countries[38]

---

[35] ActAlliance 2018.
[36] Oxfam 2018.
[37] ActAlliance 2018.
[38] Setzer/ Byrnes 2019.

The climate change lawsuits increase the pressure to reach political solutions for addressing L&D. The current climate change lawsuits are turning an abstract risk of climate claims into a very concrete one for big emitters. In the case of Saúl Luciano Lliuya against the German Energy provider RWE, the court established that generally, responsibility of a large emitter for damage or risks in foreign countries exists. It is based on German law, BGB §1004, which says that "If the property is impaired, the owner can demand the removal of the impairment from the disrupter. […]"[39]. The paragraph provides the legal basis to claim support for adaptation measures from RWE as "the disrupter". At the same time, funding to address L&D could be claimed on the very same specific norm, should the disaster (a glacier outburst flood) occur while the case is negotiated or thereafter. Based on the existing court cases, this risk applies to a multitude of countries around the world since Saúl Luciano Lluyia's lawsuit can act as a model for similar lawsuits in other countries. In fact, more than 50 jurisdictions worldwide have the same or a very similar material legal basis used for Lluyia's case.[40] **History shows concrete examples of how affected people can amplify the pressure to act on political decision makers and corporate actors by using legal avenues.**

For states it cannot be of interest that each individual major polluter is brought to justice. As the number of lawsuits continues to rise, court decisions can play an increasingly important role in implementing consequences of unclear framework conditions e.g. for companies. States and their industry would be better off, if they would shape framework conditions e.g. for their companies in a way, that their litigation risk would shrink. Present "Carbon Majors" should be forced to both provide funding to address the damages they have caused and transform their business models to avoid further damages.

1.5 Argument 5: We need a Loss&Damage finance facility based on compensatory and distributive justice principles that finances measures for both, minimizing and addressing Loss&Damage

We have outlined, how climate change impacts threaten live and livelihoods, food security, human security and sustainable economic development and how L&D creates a real climate crisis for millions of people, existentially for vulnerable developing countries and communities around the world. However, the preceding analysis revealed a massive lack of financial means to address L&D, for both inside and outside UNFCCC funding entities.

A political solution is needed to support poor and vulnerable people and their countries in dealing with unavoidable and unavoided L&D. This solutions would need to include both, elements of compensatory and distributive justice:

Elements of compensatory justice: The focus lies on holding emitters accountable for their contribution to climate change and regulating how polluters have to indemnify countries and people affected by their historic and current emissions. This is based on first, the "polluter pays principle" which is anchored as Principle 16 in the Rio Declaration (1992). Second, the "no-harm rule" saying that States are duty-bound to prevent, reduce and control the risk of environmental harm to other states. Where harm is caused, there is an obligation to cease wrongful conduct and to make full

[39] Bürgerliches Gesetzbuch (BGB).
[40] Schäfer et al. 2018.

reparation for any injuries caused. The no-harm rule is a widely recognized principle of customary international law and is also anchored in Principle 2 of the Rio Declaration 1992.
However, if the political solution to support poor and vulnerable countries in dealing with unavoidable and unavoided L&D is only based on compensatory justice principles, this would mean that those facing L&D would only be supported in dealing with part of the faced harm. As this is problematic from an ethical point of view, the political solution on the other hand would need to include elements of distributive justice.

Elements of distributive justice: This suggestion was recently brought up by Wallimann-Helmer et al.(2018) as in a case of emergency (like materializing L&D is) "someone is under duty to assist irrespective of whether that agent has caused the threat ("remedial responsibility")". Due to their extraterritorial state obligations, states are obliged to support one another and cooperate in order to realize the human rights of all people (e.g. defined in the Covenant for Economic, Social and Cultural Rights). Accordingly, the developed and other wealthier country Parties should take the lead in combating climate change and supporting poor and vulnerable countries in addressing its adverse effects – at least if their government is not able to protect human rights of citizens. Moreover, the principle of „Common but differentiated responsibilities and respective capabilities" (CBDR) anchored in UNFCCC Art 3.1 supports the same concept in saying that "the Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities".

One way to address the L&D finance question could be the establishment of **a finance arm for the WIM** based on both, compensatory and distributive justice principles. It would build on the WIM's mandate to "Facilitat[e] the mobilization and securing of expertise, and enhancement of support, including finance, technology and capacity-building, to strengthen existing approaches and, where necessary, facilitate the development and implementation of additional approaches to address loss and damage associated with climate change impacts, including extreme weather events and slow onset events" (2/CP.19,paragraph 5(c)(iii)).

The finance arm of the WIM would consist of two elements:

A **finance facility** (which would provide financial means for measures to minimize and address L&D and could either cohere dedicated L&D funding from existing UNFCCC funds (e.g. through a GCF L&D window or enhanced mandate for the AF) or be based on a multi-donor trust fund which accumulates funds from donors, innovative, public and private sources.[1] The fund itself could be anchored under an existing UNFCCC finance institution, (e.g. the GCF or adaptation fund). **The fund could be operationalized using insurance-related principles** - "element of international support ('risk sharing' between developed and developing countries), a shifting of the financial burden of impacts ('risk transfer'), from impacted countries to those contributing most directly to this impact, and systems in which contributions are made to an international or regional financial pool and disbursed to parties in need ('risk pooling')."[1] The scope of the instrument should incorporate slow onset risks. Ideas from AOSIS "Multi-Window Mechanism to address loss and damage" could be used to operationalize

A technical committee / expert group providing advice and support for development and funding of tools to address the particular needs of particularly vulnerable countries.

The role of attribution

Attribution science is advancing rapidly, and has potential to increase understanding of how climate variability and change is influencing slow onset and extreme weather events, and how this interacts with other drivers of risk, including socio economic drivers, to influence losses and damages. However, it is currently not possible to conduct scientifically viable attribution studies for all types of extreme weather events leading to losses and damages. In fact, the evidence at the disposal of poor countries, typically highly vulnerable to climate change, is very limited as compared to richer countries with long-term and high-quality data series and information. It has been suggested that a L&D finance mechanism could be informed by attribution science. However, trying to base payments on quantitative attribution evidence at a local level is unlikely to lead to fair outcomes, as the strength of available evidence will vary between places and events.[41] According to James et al, "the idea of a global compensation mechanism based on fully attributable losses and damages is currently far from reality"[42]. However, in the medium to longer-term, as evidence from climate change attribution studies is bound to increase, it could play a role in demanding compensatory justice by taking on a liability-based perspective. First steps in this direction are already being taken - In New Zealand, the Ministry of Finance has calculated how many of the insured losses of the last ten years can be attributed to climate change and how much the losses cost the country.[43] Something like this would have to be done in other parts of the world. And researchers are working on a project aimed at analyzing how high the climate change component of an insurance premium should be for southern Africa.

There are several steps necessary for establishing such a finance arm of the WIM. They do not necessarily all have to be processed one after the other but can also run in parallel.

Step 1: A room to discuss L&D finance

To discuss and initiate concrete implementation and support strategies, Parties need room for exchange and discussion. So far, the only room for discussions on action and support exists during ExCom meetings when Strategic Workstream E of the Work Plan is discussed – apart from some single activities on the issue (see p.9): Enhanced cooperation and facilitation in relation to action and support, including finance, technology and capacity-building, to address loss and damage associated with the adverse effects of climate change).

A dedicated expert group as for action and support is still missing. As an example, the Workstream D on human mobility could advance through the related task force that has been established in 2016 and produced and put forward a set of recommendations by COP24 in 2018, how to tackle the challenge. An essential reason for this progress may lie in the clear guidance by the COP (COP21 mandate to the WIM to set up a task force). This guidance could also be an important lever for progress of Workstream E on action and support.

Moreover, a standing agenda item for L&D is needed: So far, L&D under UNFCCC is only discussed on a technical level. Once a year, the WIM Executive Committee presents its annual report to the COP for consideration by the Parties. The ExCom guides the implementation of the WIM functions and is a technical, not a political body. However, some of the technical discussions, like around L&D Finance will not advance without political decisions – therefore discussions about L&D on the political level have to be enabled. Listing L&D as a permanent agenda item for Subsidiary Bodies (SBs) so that it is considered at each of its sessions would create such room for discussion. Parties could discuss their challenges and needs in addressing L&D and how to mainstream the topic into other

[41] Huggel et al. 2016.
[42] James et al. 2018.
[43] New Zealand Climate Change Research Institute / NIWA 2018.

processes, e.g. financial support, capacity building and technology transfer. The SBs assist the governing bodies through the provision of information and advice on scientific and technological matters and in the assessment and review of the implementation of the Convention. While the technical discussions on relevant items are being taken up under the constituted bodies, the SBs have the "responsibility of maintaining the political momentum, ensuring transparency on decision-making on these matters" – thereby they prepare the basis for decisions to be made at the political level. In the context of the Paris Agreement, Parties are also devising reporting guidelines on climate-related needs and actions. All these processes are anchored at the political level, where Loss&Damage needed to be integrated as well."[44] Already in the past, G77, LDCs and AOSIS called for a L&D to be a permanent agenda for Subsidiary Bodies.

Step 2: An annual stocktake of national financial L&D needs and L&D funding available in a L&D finance gap report

Article 9 of the Paris Agreement includes finance for many climate-related actions. Although it contains no mention of L&D, Art. 9.4 focuses on countries with the greatest loss and damage burdens, stating, the provision of scaled-up financial resources should … [take] into account … the priorities and needs of developing country Parties, especially those that are particularly vulnerable to the adverse effects of climate change and have significant capacity constraints, such as the least developed countries and small island developing States.(UNFCCC, 2015).[45]

As explained under Argument 2, there are no official estimates of Loss&Damage finance needs and the existing estimates vary significantly and are based on different methods. What is missing moreover is an accurate assessment of the current status quo of L&D finance accompanied by a definition of L&D measures. A reliable assessment of both, finance needs for L&D measures and the funding available on an annual basis is needed. One way to get there would be a L&D Finance Gap Report – similar to the Adaptation Finance Gap or the Emissions Gap Reports. Both reports assess the gap between adaptation needs/ambition and reality and were requested by Parties. The adaptation gap report focuses on gaps in developing countries in three important areas of finance, technology and knowledge.

The method of the L&D Gap Report for assessing finance needs could follow the successfully tested structure of the Technology Needs Assessment. To determine their climate technology priorities, countries undertake technology needs assessments (TNAs). All developing countries may receive support to conduct a TNA. Support is provided by the UNEP DTU Partnership and the Global Environment Facility. Since 2010, UNEP DTU has supported more than 80 countries to conduct TNAs. An important role is played by the Technology Executive Committee (TEC). It analyses TNAs and, together with key stakeholders and practitioners, developed guidance for preparing TNAs.

The L&D Finance Gap report would provide space to address the following methodological challenges in assessing L&D Finance needs:

- Issues relating to the time horizon under consideration and related uncertainty[46]. Future climate change varies with the future emission scenario and the climate model output for a particular scenario.
- The relationship between adaptation expenditures and L&D[47]
- The adaptation deficit, which relates to the adverse impacts of current climate variability and extremes, which many countries have not incorporated in their adaptation plans. Future adaptation will be less effective if the adaptation deficit is not addressed and hencethe bigger the adaptation deficit, the larger L&D will be.

[44] Climate Analytics 2017.
[45] See also Durand et al. 2016.
46 Markandya /González-Eguino 2018.
47 Ibid.

The L&D Finance Gap Report should be produced as soon as possible and its results should feed into the Standing Committee on Finance (SCF) needs determination report in 2020.

Step 3: Analysis of potential financing approaches for Loss&Damage, including innovative sources of finance that may generate additional resources and testing them against human-rights-based principles

There is a large number of different financing instruments for L&D. They include traditional instruments (e.g. climate risk insurance, climate bonds, etc.) and innovative tools (e.g. an air passenger levy, financial transaction tax, solidarity levy etc.) but also immediate debt relief in the form of an interest-free moratorium on debt payments is lately discussed as an option. The ExCom (respectively its expert group on action and support) should analyze these tools with regard to the following criteria: adequacy, dependability, predictability, sustainability, feasibility, human-rights effects and should thereby consider existing analysis (e.g. Durand et al. 2016).

One of the most advanced discussions exist with regard to an **air passenger levy**. In 2008, the LDC Group suggested an adaptation solidarity levy on international air passengers to provide more adequate funding for adaptation activities in the poorest and most vulnerable countries and communities.[48] They proposed to establish a small passenger charge for international flights − differentiated with respect to the class of travel −to raise between 8 billion USD and 10 billion USD annually. This idea was transferred to the L&D context in 2019 by the UN report on "Human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment"[49]. It suggests that "Financing for loss and damage could be provided through an air travel levy, a levy on fuels used by the aviation and shipping industries, or a climate damages levy on the revenues of fossil fuel companies. A basic global air travel levy would raise 40–100 billion USD annually (at 10–25 USD per person per flight, given that current passenger levels exceed 4 billion per year). Air travel causes significant, largely unregulated emissions, and is used primarily by relatively wealthy people. A progressive air travel levy could impose higher payments on business – and first-class tickets, as well as on longer flights. This addition would be based on the principle of responsibility as first class and long distance travelers produce more emissions. Nine States, including Cameroon, Chile, France and the Republic of Korea, have already adopted an air-ticket solidarity levy, with the proceeds going towards Unitaid, a global health initiative."[50]

For the EU, the increased inclusion of aviation in EU Emissions Trading Scheme will be discussed in 2020 or 2021 providing an opportunity that the issue of an air passenger levy is included in the discussions.

Step 4: Analysis of possibilities for a finance facility for Loss&Damage within existing institutions or the need for new institutions

The ExCom (respectively its expert group on action and support) together with the SCF should investigate on possibilities how to channel additional funding to address L&D. Based on Decision 2/CP.19, para-5(c)(ii), the ExCom is mandated to provide "information and recommendations for consideration by the [COP] when providing guidance relevant to reducing the risks of loss and damage and, where necessary, addressing loss and damage, including to the operating entities of the financial mechanism of the Convention". The SCF should be tasked by the COP to conduct a comparative analysis of various fund of finance mechanism options' respective strengths and weaknesses to inform decision making by the COP. Either in support of **the creation of a new Loss&Damage fund of finance mechanism solution** or in giving guidance to the existing operating

48 Müller 2008.
49 UN 2019.
50 UN 2019.

entities of the UNFCCC financial mechanism to **expand their mandate to include LossDamage financing** and prepare governance to that purpose.

As the GCF and the AF already financing some of the ex-ante L&D measures (see table 2), they should be reviewed in the first place regarding their fit to enclose L&D funding in their portfolio or host a specific L&D trust fund. Finding a way to finance ex-post L&D measures, apart from insurance solutions, will be of particular importance.

Analysis how state and private actors can contribute to the financing of loss and damage based on the UNFCCC-principles of responsibility and capability.

The fund mobilization for the finance facility should follow key principles[1]

- **Polluter pays/Responsibility**: Financial contributions to the fund are relative to the quantity of historic and current emissions produced (based on Rio Declaration)
- **Extraterritorial state obligations:** States (financially) support one another, especially wealthier towards poorer countries and cooperate in the realization of all peoples' economic, social and cultural rights
- **Respective capability:** Financial contributions are correlated with differentiated responsibilities and respective capabilities as well as countries different social and economic conditions (based on UNFCCC, Art. 3.1)
- **Adequacy**: Funding is sufficient to minimize and address L&D as it adequately reflects L&D finance needs from developing countries.
- **Financial additionality:** L&D finance is additional to adaptation finance and provided on top of the 100 billion USD per year from 2020.
- **Predictability:** Funding is known and secure over a multi-year, medium-term funding cycle.

Step 5: Analysis of funding modalities - what role can national Loss&Damage mechanisms play?

Some countries are addressing the problem of L&D by setting up national mechanisms and funds. Examples include the Bangladesh L&D mechanism and the Philippine People's Survival Fund. In complementing current efforts to set up the mechanism, Haque et al. (2018) suggest for the Bangladesh L&D mechanism to make use of a reserve fund of approximately 140 million USD accumulated by unspent finance from the Bangladesh Climate Change Trust Fund in order to deal with those climate-related impacts not tackled by conventional Disaster Risk Rreduction (DRR) or Climate Change Adaptation (CCA) measures. This would also include ex-post compensation for losses and damages triggered by climate change induced slow onset events, like salinity intrusion and increased intensity of cyclones. It should be tested if this type of fund could be used as payout modality for the L&D finance facility. It would be interesting to test such an option as a first step in a couple of states.

2 Conclusions: COP25 decisions to advance the Loss&Damage finance discussion

COP25 needs to address the issue of L&D finance prominently. With the aim to eventually set up a finance facility for L&D, the COP needs to decide on tangible next steps in approaching a solution for L&D finance. The WIM review needs to ensure that the WIM is fit to effectively assist vulnerable countries in dealing with L&D and meet their needs, also with regard to future L&D.

2.1 Recommendation 1: COP25 decision to establish an ExCom expert group on action and support

An ExCom Expert Group on Action and Support:

COP20 mandates the ExCom to "establish a technical expert panel or group, extending invitations to relevant bodies under the Convention and relevant United Nations organizations, the private sector, expert bodies and relevant initiatives that could provide technical support and guidance on comprehensive risk management and transformational approaches (which could include issues related to action areas 5 and 7 of this workplan)"[51]. So far, the ExCom established four technical expert groups: On Comprehensive risk management, Slow onset events, Non-economic losses and Displacement. They play a "mayor role in carrying out the activities of the workplan".[52] As a first step on the way to set up a finance facility on L&D Finance, the **COP25 should decide to set up an expert group on Action and Support as first element of a WIM finance arm**. As the other expert groups, this group should support carrying out the activities of the eponymous strategic workstream. But it should also help to address the question of how to fully operationalize the third function of the WIM on enhancing action and support. In 2020, the expert group should deal with the following issues:

- Annual stocktake of national L&D finance needs and the funding available through a L&D finance gap report reflected in the SCF needs determination report
- Analysis of potential financing approaches for L&D, including innovative sources of finance that may generate additional resources
- Testing financing approaches and implementation methodologies against a human-rights-based approach
- Analysis of possibilities for a finance facility for L&D within existing institutions or the need for new institutions

[51] FCCC/SB/2014/4, Annex II – Action Area 2, Activity (d).
[52] Ibid.

2.2 Recommendation 2: COP25 Decision on ExCom priorities for 2020

The COP25 should decide that the ExCom in 2020 prioritizes work in the following areas, and delivers clear recommendations for concrete actions by COP26:

- possibilities for a finance facility for L&D within existing UNFCCC institutions or the need for new institutions
- potential financing approaches for L&D, including innovative sources of finance that may generate additional resources and testing them against human-rights-based principles
- an assessment of best practice in developing countries to address Loss&Damage and how funding can reach the most vulnerable – using a human rights methodology to identify them.

Literature

ActAlliance 2018: An analysis of the Climate Finance Reporting of the European Union. Available at: https://actalliance.eu/wp-content/uploads/2018/04/Analysis-of-the-climate-finance-reporting-of-the-EU.pdf.

AOSIS 2008. Submission of alliance of Small Island States. In: Ideas and proposals on the elements contained in paragraph 1 of the Bali Action Plan, Submissions from Parties, Addendum, Part I (UN Doc. FCCC/AWGLCA/2008/Misc.5/Add.2), 9–32.

Buhr, B./ U. Volz et al. 2018: Climate change and the costs of capital in developing countries. London. Available at: https://eprints.soas.ac.uk/26038/1/ClimateCostof-Capital_FullReport_Final.pdf.

Byrnes, R./Surminski, S. 2019: Addressing the impacts of climate change through an effective Warsaw International Mechanism on Loss and Damage - Submission to the second review of the Warsaw International Mechanism on Loss and Damage under the UNFCCC. Available at: https://www4.unfccc.int/sites/SubmissionsStaging/Documents/201910251036---GRI_WIM%20Submission.pdf.

CARE et al. 2019: From Cyclone to Food Crisis: Ensuring the needs of women and girls are prioritized in the Cyclone Idai and Kenneth responses. Available at: https://reliefweb.int/report/mozambique/cyclone-food-crisis-ensuring-needs-women-and-girls-are-prioritized-cyclone-idai.

Climate Analytics 2017: Loss and Damage at COP23 – goals, roadblocks and detours. Available at: https://climateanalytics.org/blog/2017/loss-and-damage-at-cop23-disappointments-and-consolation-prizes/.

Committee on Extreme Weather Events and Climate Change Attribution et al. 2016: Attribution of Extreme Weather Events in the Context of Climate Change. Available at: https://www.nap.edu/read/21852/chapter/1.

DeFries, R./ Edenhofer, O./ Halliday, A./ Heal, G./ Lenton, T./ Puma, M./Rising, J./ Rockström, J./. Ruane, A./ Schellnhuber, H. J./ Stainforth, D./ Stern, N./ Tedesco, M./ Ward, B. 2019: The missing economic risks in assessments of climate change impacts. Available at: http://www.lse.ac.uk/GranthamInstitute/wp-content/uploads/2019/09/The-missing-economic-risks-in-assessments-of-climate-change-impacts-2.pdf.

Durand, A. et al. 2016: Financing Options for Loss and Damage: a Review and Roadmap. Available at: https://www.die-gdi.de/uploads/media/DP_21.2016.pdf.

Eckstein, D./ Künzel, V./ Schäfer, L./ Winges, M. 2019: Global Climate Risk Index 2020. Bonn: Germanwatch.

Executive Committee of the Warsaw International Mechanism for Loss & Damage [ExCom] 2019: Compendium on Comprehensive Risk management Approaches. Available at: https://unfccc.int/sites/default/files/resource/FINAL_AA3_Compendium_September_2019%28revised%29.pdf.

Field, C.B. et al. 2014: Climate Change 2014. Impacts, Adaptation and Vulnerability. Summary for Policy Makers. Working Group II Contribution to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Available at: https://www.ipcc.ch/site/assets/uploads/2018/02/ar5_wgII_spm_en.pdf.

Hallegatte, S./ Vogt-Schilb, A./ Bangalore, M./ Rozenberg, J. 2017: Unbreakable: Building the Resilience of the Poor in the Face of Natural Disasters. Climate Change and Development. Washington, DC: World Bank.

Haque, M./ Pervin, M./ Sultana, S./ Huq, S. 2018: Towards establishing a national mechanism to address loss and damage: a case study from Bangladesh. In: Mechler R./ Bouwer, L./ Schinko, T./ Surminski, S./ Linnerooth-Bayer, J. (eds): Loss and damage from climate change. Concepts, methods and policy options. Springer, 451–473.

High-Level Panel on Humanitarian Financing 2016. Report to the Secretary-General: Too important to fail—addressing the humanitarian financing gap. Available at: https://reliefweb.int/sites/reliefweb.int/files/resources/%5BHLP%20Report%5D%20Too%20important%20to%20fail%E2%80%94addressing%20the%20humanitarian%20financing%20gap.pdf.

Huggel C./ Wallimann-Helmer, I./ Stone, D./ Cramer, W. 2016: Reconciling justice and attribution research to advance climate policy. Nat Clim Change.6. 901–908.

IPCC 2014: Glossary. Available at: https://www.ipcc.ch/site/assets/uploads/2019/01/SYRAR5-Glossary_en.pdf.

James, R./ Jones, R. G./ Boyd, E/ Young, H.R./ . Otto, F.E.L./ Huggel, C./ Fuglestvedt, J.S. 2018: Attribution: How Is It Relevant for Loss and Damage Policy and Practice?: Concepts, Methods and Policy Options. In book: Loss and Damage from Climate Change, 113-15.

Kulp, S.A./ Strauss, B.H. 2019: New elevation data triple estimates of global vulnerability to sea-level rise and coastal flooding. In: Nature Communications 10.

Mace, M./ Verheyen, R. 2016: Loss, Damage and Responsibility after COP21: All Options Open for the Paris Agreement. In: Review of European 25 (2),197-214.

Mozambique Cyclone Idai 2019: Post Disaster Needs Assessment 2019. Available at: https://www.undp.org/content/dam/undp/library/Climate%20and%20Disaster%20Resilience/PDNA/PDNA%20Mozambique%20Cyclone%20Idai%20-%20Post-Disaster%20Needs%20Assessment_Executive%20Summary.pdf.

Markandya, A./ González-Eguino, M. 2018: Integrated Assessment for Identifying Climate Finance Needs for Loss and Damage: A Critical Review. In: Mechler R./ Bouwer, L./ Schinko, T./ Surminski, S./ Linnerooth-Bayer, J. (eds): Loss and damage from climate change. Concepts, methods and policy options. Springer, 343-362.

Martin, M./ Walker, J. 2015: Financing The Sustainable Development Goals - Lessons from government spending on the MDGs. Available at: https://www-cdn.oxfam.org/s3fs-public/file_attachments/rr-financing-sustainable-development-goals-110615-en.pdf.

Müller, B. 2008: International Air Passenger Adaptation Levy (IAPAL). A proposal by the Group of Least Developed Countries (LDCs) within the framework of the Bali Action Plan. Available at: https://oxfordclimatepolicy.org/sites/default/files/ecbiBrief-IAPAL13Q%26As.pdf.

New Zealand Climate Change Research Institute/ NIWA 2018: Estimating financial costs of climate change in New Zealand. An estimate of climate change-related weather event costs. Available at: https://treasury.govt.nz/sites/default/files/2018-08/LSF-estimating-financial-cost-of-climate-change-in-nz.pdf.

OECD 2019: Development aid drops in 2018, especially to neediest countries. Available at: http://www.oecd.org/development/development-aid-drops-in-2018-especially-to-neediest-countries.htm.

Oreskes, N./ Oppenheimer, M./Jamieson, D. 2019: Scientists have been underestimating the pace of climate change. In: Scientific America. Available at: https://blogs.scientificamerican.com/observations/scientists-have-been-underestimating-the-pace-of-climate-change/.

Oxfam 2018: Climate Finance Shadow Report 2018. Available at: https://oi-files-d8-prod.s3.eu-west-2.amazonaws.com/s3fs-public/file_attachments/bp-climate-finance-shadow-report-030518-en.pdf.

Prime Minister's Office Barbados 2019: Statement at the UN Secretary's Climate Action Summit. Available at: https://pmo.gov.bb/2019/09/23/statement-at-the-un-secretary-generals-climate-action-summit/.

Schaefer, L./Waters, L. 2016: Climate Risk Insurance for the poor &vulnerable: How to effectively implement the pro-poor focus of Insuresilience. An analysis of good practice, literature and expert interviews. Munich Climate Insurance Initiative. Available at: http://www.climate-insurance.org/fileadmin/mcii/documents/MCII_2016_CRI_for_the_Poor_and_Vulnerable_full_study_lo-res.pdf.

Schaefer, L./ Künzel, V./ Bals, C. 2018: The significance of climate litigation for the political debate on Loss&Damage. Available at: https://www.germanwatch.org/sites/germanwatch.org/files/publication/21699.pdf.

Schalatek, L., Bird, N. 2016: The Principles and Criteria of Public Climate Finance', Climate Funds Update, Available at: https://www.odi.org/sites/odi.org.uk/files/resourcedocuments/11018.pdf.

Setzer, J./ Byrnes, R. 2019: Global Trends in Climate Change Litigation: Snapshot 2019. Available at: http://www.lse.ac.uk/GranthamInstitute/wp-content/uploads/2019/07/GRI_Global-trends-in-climate-change-litigation-2019-snapshot-2.pdf.

Shankelmann, J. 2017: Growing Climate Risks may be ‚Impossible to Model' – and Ultimately Uninsurable. Insurance Journal. Available at: https://www.insurancejournal.com/news/national/2017/11/13/470949.html.

Wallimann-Helmer, I./ Meyer, L./Mintz-Woo, K./ Schinko, T./ Serdeczny, O. 2018:The Ethical Challenges in the Context of Climate Loss and Damage. In: Mechler R./ Bouwer, L./ Schinko, T./ Surminski, S./ Linnerooth-Bayer, J. (eds): Loss and damage from climate change. Concepts, methods and policy options. Springer, 39-62.

UN 2019: Human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment. A/74/161. Available at: https://undocs.org/en/A/74/161.

UNEP 2014: The Adaptation Gap Report. Available at: https://climateanalytics.org/media/unep_adaptation_gap_report_2014.pdf.

UNFCCC 2015: Paris Agreement. Available at: https://unfccc.int/sites/default/files/english_paris_agreement.pdf.

UNFCCC 2019: Elaboration of the sources of and modalities for accessing financial support for addressing loss and damage. FCCC/TP/2019/1. Available at: https://unfccc.int/sites/default/files/resource/tp2019_1_advance.pdf.

UNICEF 2019: Idai and Kenneth cause devastation and suffering in Mozambique. Available at: https://www.unicef.org/mozambique/en/cyclone-idai-and-kennethCyclone.

Germanwatch

Following the motto of *Observing. Analysing. Acting.* Germanwatch has been actively promoting global equity and livelihood preservation since 1991. We focus on the politics and economics of the Global North and their worldwide consequences. The situation of marginalised people in the Global South is the starting point for our work. Together with our members and supporters, and with other actors in civil society, we strive to serve as a strong lobbying force for sustainable development. We aim at our goals by advocating for prevention of dangerous climate change and its negative impacts, for guaranteeing food security, and for corporate compliance with human rights standards.

Germanwatch is funded by membership fees, donations, programme funding from Stiftung Zukunftsfähigkeit (Foundation for Sustainability), and grants from public and private donors.

You can also help us to achieve our goals by becoming a member or by making a donation via the following account:

Bank für Sozialwirtschaft AG,
BIC/Swift: BFSWDE33BER
IBAN: DE33 1002 0500 0003 2123 00

For further information, please contact one of our offices

Germanwatch – Bonn Office
Kaiserstr. 201
D-53113 Bonn, Germany
Phone: +49 (0)228 / 60492-0
Fax: +49 (0)228 / 60492-19

Germanwatch – Berlin Office
Stresemannstr. 72
D-10963 Berlin, Germany
Phone: +49 (0)30 / 2888 356-0
Fax: +49 (0)30 / 2888 356 -1

E-mail: info@germanwatch.org

or visit our website:

www.germanwatch.org