

# Operationalization of the Loss and Damage Fund: Challenges and Opportunities

## DISCUSSION PAPER



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# INTRODUCTION

At the 27th Conference of the Parties (COP27) of the United Nations Framework Convention on Climate Change (UNFCCC), the participating states agreed on the broad modalities for the establishment of a historic Loss and Damage Fund. Furthermore, COP27 set up a transnational committee to “make recommendations for consideration and adoption by COP28” for the loss and damage fund, making the particulars and modalities of the fund a key topic for COP28 in December 2023.

The proposed aim of such a Loss and Damage fund is to ensure that developing countries have financial assistance as they contend with the negative impacts of climate change, either through sudden extreme events or through long-term damages through desertification and sea level rise. The loss and damage fund is the result of a years-long process by the developing countries to set up a mechanism to rebuild and further develop resilience in their physical and social infrastructure. However, while such an establishment is historic, there are several challenges that need to be overcome for the Loss and Damage fund to be functional and effective. This issue brief examines some of the crucial considerations that the Transitional Committee and COP members will need to come to an agreement on, from a governance, financial, and scientific viewpoint. Furthermore, it also seeks to examine the implications of the setting up of such a fund on India, as well as the role India can play in the establishment and functioning of such a loss and damage mechanism.

## WHAT IS LOSS AND DAMAGE?

Among the different channels of climate action and concepts, loss and damage is generally utilized to refer to the adverse impacts of climate change that arise due to the failure of adequate ‘mitigation’ (the reduction of greenhouse gas emissions) or due to the lack of sufficient ‘adaptation’ (the building of resilience to adjust against current and future climatic impacts)<sup>2</sup>. Therefore, it can be surmised that the increasing need to focus on loss and damage reflects the reality that climate change had substantial adverse impacts on ecosystems, economies, infrastructure, livelihoods, human health, and well-being around the world.

However, despite the focus, negotiations, and policy development around loss and damage, there is no internationally agreed definition for loss and damage that has been enshrined in the UNFCCC. To a limited extent, the UNFCCC categorizes loss and damage “to include harms resulting from sudden-onset events (climate disasters, such as cyclones) as well as slow-onset processes (such as sea level rise)”<sup>3</sup>. Similarly, the United Nations Environment Programme (UNEP) further describes loss and damage as “the negative consequences that arise from unavoidable risks of climate change.”<sup>4</sup> Independent analysis by thinktanks, researchers, and academia also have varying definitions of loss and damage, with the London School of Economics and Political Science (LSE) describing loss and damage as the “policy that supports vulnerable, developing countries manage their loss and damage due to climate change”<sup>5</sup>. The Loss and Damage Collaboration defines it as the “unavoidable devastation that is being caused by higher global temperatures that have resulted from human-induced climate change”; and the Centre for American Progress defines the term to refer to “permanent loss or repairable damage caused by the manifestations of climate change”<sup>6</sup>.

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<sup>1</sup> <https://unfccc.int/process-and-meetings/bodies/constituted-bodies/transitional-committee>

<sup>2</sup> Kreienkamp, J. and Vanhala, L., 2017. Climate change loss and damage. Global Governance Institute, pp.1-28.

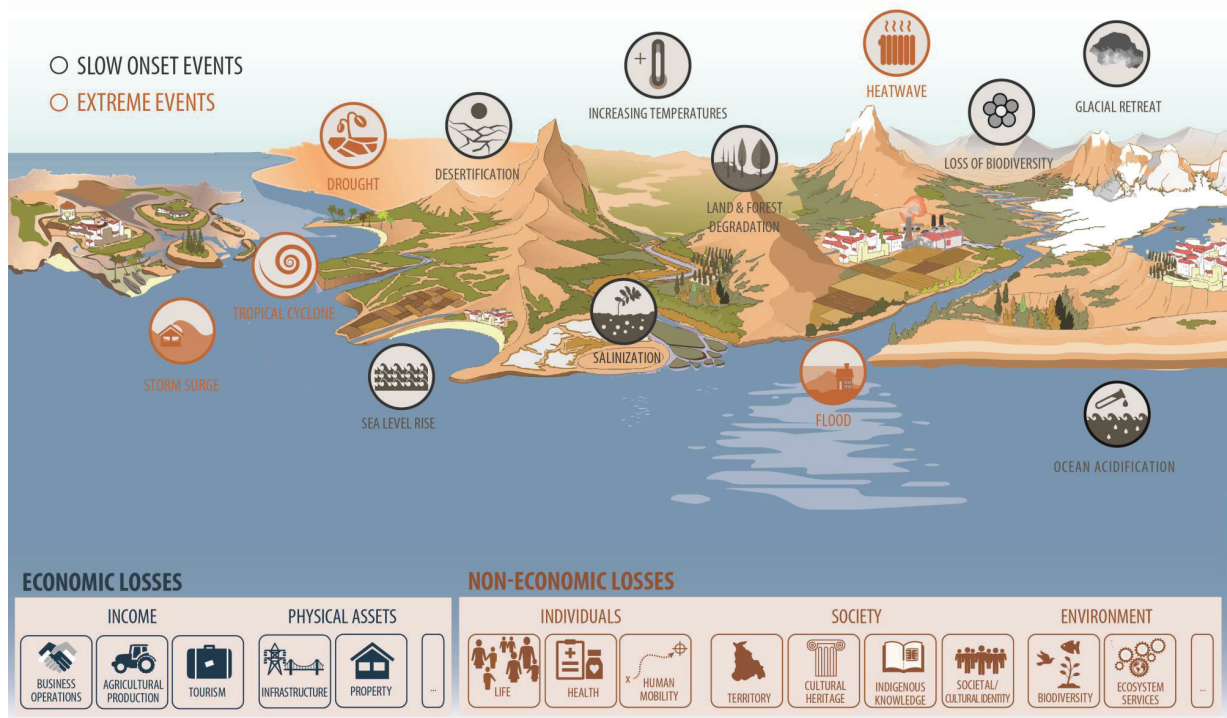
<sup>3</sup> Bhandari, P., Warszawski, N., Cogan, D. and Gerholdt, R., 2022. What Is “Loss and Damage” from Climate Change? 8 Key Questions, Answered.

<sup>4</sup> <https://www.unep.org/explore-topics/climate-action/what-we-do/about-loss-and-damage>

<sup>5</sup> <https://www.lse.ac.uk/granthaminstitute/explainers/what-is-climate-change-loss-and-damage/>

<sup>6</sup> <https://www.lossanddamagecollaboration.org/whatislossanddamage>





Source: UNFCCC Online Guide on Loss and Damage, [https://unfccc.int/sites/default/files/resource/Online\\_guide\\_on\\_loss\\_and\\_damage-May\\_2018.pdf](https://unfccc.int/sites/default/files/resource/Online_guide_on_loss_and_damage-May_2018.pdf)

However, there is consensus between researchers that loss and damage can be divided into economic loss and damage, that encompasses the harms to economies, infrastructure, livelihoods and property, and non-economic damages, that can include loss of life and biodiversity, ecosystems, cultural and traditional heritage, and traditional knowledge and lifestyles among communities. These losses and damages may arise from extreme weather events, that have become more severe and prevalent due to climate change, as well as from slow-onset events such as glacier melting, rising temperatures, and sea-level rise. However, it is difficult and challenging to quantify the current extent of global loss and damage arising from climate change. Several different estimates have been undertaken at various levels, with the Vulnerable20 (V20) group, a coalition of the world’s twenty most climate-vulnerable countries, estimating that they incurred a loss of potentially \$525 billion in the last 20 years<sup>7</sup> due to the impacts of climate change. The past and future trends around loss and damage also highlight a gloomy picture, as an average of 189 million people in developing countries have been affected by extreme weather events each year<sup>8</sup>, and annual economic output could be eroded by 4% by 2050 due to climate change<sup>9</sup>, with the burden being borne disproportionately by the poorer countries.

Lastly, it is important to highlight how definitions and discourse around responsibilities has impacted the negotiations around loss and damage in the UNFCCC process. It is critical to note that many countries that face the most adverse and negative impacts of climate change, such as the Least Developed Countries

<sup>7</sup> Vulnerable20 (V20). Climate Vulnerable Economies Loss Report. June 2022. <https://www.v-20.org/resources/publications/climate-vulnerable-economies-loss-report>

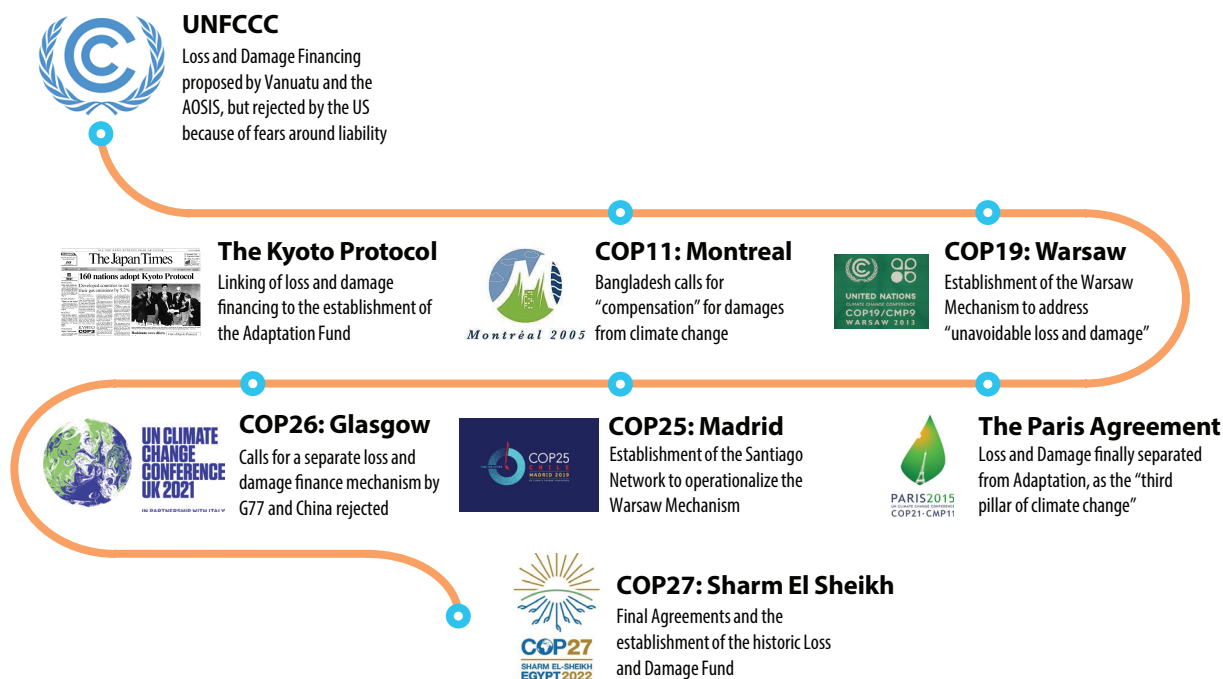
<sup>8</sup> Pflieger, G., 2023. COP27: One step on loss and damage for the most vulnerable countries, no step for the fight against climate change. PLOS Climate, 2(1), p.e0000136.

<sup>9</sup> V20 (2022). "Climate Vulnerable Economies Loss Report: Economic losses attributable to climate change in V20 economies over the last two decades (200–2019)". Accessible at: [https://www.v-20.org/wp-content/uploads/2022/06/Climate-Vulnerable-Economies-Loss-Report\\_June-14\\_compressed-1.pdf](https://www.v-20.org/wp-content/uploads/2022/06/Climate-Vulnerable-Economies-Loss-Report_June-14_compressed-1.pdf)

(LDCs) and the Small Island Developing States (SIDS), are also the least responsible for global carbon emissions. For example, the entire continent of Africa is only responsible for 3.8 percent of greenhouse gas emissions<sup>10</sup>, yet it is the most vulnerable continent to the impacts of climate change. Therefore, based on such historical emissions responsibilities, the developing countries have called upon the developed world to contribute to loss and damage financing, a call which has been resisted by the developed countries out of fear for setting precedents of legal obligations of financial compensation for climate change. As such, these competing viewpoints have set the stage for contentious negotiations around loss and damage, which finally culminated in the setting up of the loss and damage fund at Sharm-el-Sheikh.

## TIMELINE OF LOSS AND DAMAGE NEGOTIATIONS AT UNFCCC

The Loss and Damage Fund is a by-product of over thirty years of climate negotiations. The term “loss and damage”, with reference to potential financing for the same, was first proposed in 1991 by Vanuatu, as part of the Alliance of Small Island States (AOSIS)<sup>11</sup>, that called for the creation of a mechanism to provide compensation for losses and damages, an international insurance pool, related to climate change. Apart from the insurance mechanism, the proposal included a specific request for “industrialized” nations to pay for the loss and damage suffered by island nations due to rising sea levels. However, this proposal was not well-received by the developed nations and was not even accepted as an agenda point in the final convention. The proposal was rejected by the developed countries, particularly the United States, based on fears on appropriating responsibility and liability to climate disasters<sup>12</sup>, as well as providing a channel for the developed world to demand financial resources from the global north.



<sup>10</sup> Ndubuisi, O.G., Kolawole Ayotunde, E.D.A. and Lukeman, E.D.L.S., 2023. GREEN HOUSE EFFECT AND GLOBAL CLIMATE CHANGE: THE AFRICAN PERSPECTIVE. IPHO-Journal of Advance Research in Applied Science, 1(07), pp.06-14.

<sup>11</sup> Ashe, J.W., Van Lierop, R. and Cherian, A., 1999, August. The role of the alliance of small island states (AOSIS) in the negotiation of the United Nations framework convention on climate change (UNFCCC). In Natural Resources Forum (Vol. 23, No. 3, pp. 209-220). Oxford, UK: Blackwell Publishing Ltd.

<sup>12</sup> Williams, O.F., 2004. The UN Global Compact: The challenge and the promise. Business Ethics Quarterly, 14(4), pp.755-774.

For many years, the topic of loss and damage was seen as a component of the broader discussion around climate adaptation, with references to loss and damage being largely viewed through a lens of developing adaptive practices, and the need for upscaling adaptation in the developing world. For example, in the Kyoto Protocol (1997), as part of the establishment of the Adaptation Fund, there is a mention of “insurance to minimize the adverse impacts of climate change”, that is influenced from the initial 1991 proposal of the AOSIS<sup>13</sup>. This linkage between adaptation and the framing of loss and damage financing as “insurance against residual/adverse impacts” was also carried forward to COP7 (Marrakech) and COP10 (Buenos Aires)<sup>14</sup>. Furthermore, COP10 also resulted in the controversial decision around “response measures to adaptation”<sup>15</sup>, which established that any action taken to help vulnerable countries deal with climate impacts have to be matched with help for countries whose fossil-fuel industries are threatened by climate action. The debates around these intractable compromises led to further delays on adaptation decisions, and by association, the issue of loss and damage.

Loss and damage emerged as an issue in its own right through the efforts of Bangladesh at COP11 (Montreal), as it called for the “compensation for damages caused by climate change”<sup>16</sup>. At COP13, loss and damage emerged in UNFCCC text for the first time, as the decision text included strategies to help countries reduce climate risk, and more importantly, “the means to address loss and damage”<sup>17</sup>. The turning point in the debate around loss and damage was reached at COP15 in Copenhagen, where the AOSIS was joined by the African Group, India, Brazil, Bangladesh, Costa Rica, and Panama in calling for international mechanisms to address “unavoidable loss and damage”<sup>18</sup>. This paved the way for loss and damage to be discussed as an issue separately from adaptation at the highest level, with subsequent COPs establishing the Warsaw Mechanism in 2013 (COP19) to explore measures to combat loss and damage associated with the impacts of climate change in developing countries and the Santiago Network in 2019 (COP25) to operationalize the Warsaw Mechanism, by catalysing technical expertise and assistance across the world to address loss and damage associated with climate change in developing countries. Furthermore, another major development was to establish Loss and Damage as the “third pillar of climate change”<sup>19</sup> in the Paris Agreement in 2016 (COP21), where loss and damage was firmly established as a distinct issue from adaptation. However, it is also important to note that this establishment in the Paris Agreement is also accompanied by the decision text that confirms countries such as the US cannot be held legally responsible for loss and damage (Article 8).

The call for a separate Loss and Damage financing facility by the G77 plus China at COP26 was rejected in 2021<sup>20</sup>, and opposition to the fund continued beyond Glasgow, as the representatives of the developed countries preferred to strengthen existing organizations and broaden the scope of their responsibilities, rather than seeing value in the establishment of a separate facility. Furthermore, historical concerns by the global north remained, as many of these countries believed that the establishment of such a facility would

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<sup>13</sup> Khan, M.R. and Roberts, J.T., 2013. Adaptation and international climate policy. *Wiley Interdisciplinary Reviews: Climate Change*, 4(3), pp.171-189.

<sup>14</sup> Gabbatis, J. and Prater, T., 2022. Timeline: The Struggle Over ‘Loss and Damage’ in UN Climate Talks. *Carbon Brief*, 27.

<sup>15</sup> Gabbatis, J. and Prater, T., 2022. Timeline: The Struggle Over ‘Loss and Damage’ in UN Climate Talks. *Carbon Brief*, 27.

<sup>16</sup> Gabbatis, J. and Prater, T., 2022. Timeline: The Struggle Over ‘Loss and Damage’ in UN Climate Talks. *Carbon Brief*, 27.

<sup>17</sup> Roberts, E. and Huq, S., 2015. Coming full circle: the history of loss and damage under the UNFCCC. *International Journal of Global Warming*, 8(2), pp.141-157.

<sup>18</sup> Karimi-Schmidt, Y., 2020. The Issues of Loss and Damage Within the International Climate Law.

<sup>19</sup> Page, E.A. and Heyward, C., 2017. Compensating for climate change loss and damage. *Political Studies*, 65(2), pp.356-372.

<sup>20</sup> Åberg, A. and Jeffs, N. (2022), Loss and Damage finance in the climate negotiations: Key challenges and next steps, Research Paper, London: Royal Institute of International Affairs, <https://doi.org/10.55317/9781784135461>



make them legally obligated to provide compensation to climate vulnerable developing countries<sup>21</sup>. The breakthrough for the Loss and Damage Fund at COP27 occurred largely due to the unity of the G77 and China, which was able to negotiate jointly at Sharm-el-Sheikh. This followed the standard groundwork laid down prior to the UNFCCC meetings in October 2022, which involved the appointment of co-facilitators on Loss and Damage finance, as well as consultations by the COP27 presidency with delegations prior to the conference. These discussions also involved the findings highlighted by the SBSTA in Bonn in the early half of 2022 around the gaps in the current financing architecture. This groundwork aided in providing scientific rigor and civil society momentum to the unified G77 and China group which sought to use COP27 as a platform to further increased the pressure on the developed countries to meet their commitments and revamp the current climate finance landscape<sup>22</sup>.

The G77 and China had already highlighted that the establishment of the fund was a “make-or-break” issue for them<sup>23</sup>, with the agenda and the rallying of the countries largely driven by the AOSIS. Furthermore, the G77 and China’s call for the fund had been echoed by media and civil society organizations in the lead-up to COP27, further engendering the narrative of the loss and damage mechanism being the “litmus test” for COP27. Along with such advocacy and groundswell, the fact the chair of the G77 and China, Pakistan, had suffered catastrophic floods in 2022, highlighting the worsening impacts of climate change, contributed significantly to the pressure on the developed countries to enable and prioritize an agreement on the issue of Loss and Damage finance.

Despite the extensive preparations, the developed countries initially maintained their opposition, instead favouring a decision text that would launch a process to explore appropriate funding solutions for a later decision. However, the European Union (EU) suddenly reversed its opposition in the second week, announcing its support for the Loss and Damage fund “under certain conditions”<sup>24</sup>. Despite further negotiations and the lack of agreement around all the conditions of the EU, the willingness of the countries to reach an agreement and prevent further stalemates around Loss and Damage finance enabled the historic establishment of the Loss and Damage Fund. Though several negotiators from the developed countries voiced their scepticism for the decision<sup>25</sup>, they acknowledged the importance of the issue for the developing world, as well as realizing the risks of further delays around the issue, which would potentially spill over to other COP cover decisions, such as the Mitigation Work Program<sup>26</sup>.

## THE CHALLENGES IN OPERATIONALIZING THE LOSS AND DAMAGE FUND

Looming over the proposed establishment of the Loss and Damage fund is the existing narrative around the wealthy nations’ failure and shortcomings to meet the 2009 pledge to provide US\$100 billion per year from 2020 in climate finance to poorer nations. The establishment of the Loss and Damage fund raises key questions on the implications from the diversion of resources and funds to establish a separate financing mechanism, with its attendant funding burdens, on the existing climate finance architecture. Such questions

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<sup>21</sup> Hossain, M.F., Huq, S. and Khan, M.R., 2021. The intractability of loss and damage issues in climate negotiations. *Soundings*, 78(78), pp.38-49.

<sup>22</sup> Åberg, A. and Jeffs, N. (2022), *Loss and Damage finance in the climate negotiations: Key challenges and next steps*, Research Paper, London: Royal Institute of International Affairs, <https://doi.org/10.55317/9781784135461>

<sup>23</sup> <https://www.chathamhouse.org/2023/02/historic-loss-and-damage-fund>

<sup>24</sup> Tietjen, B. and Gopalakrishnan, T., 2023. Loss and Damage Funding in the UN Climate Negotiations: From Dialogue to Reality. *Environment: Science and Policy for Sustainable Development*, 65(3), pp.18-28.

<sup>25</sup> Falzon, D., Shaia, F., Roberts, J.T., Hossain, M.F., Robinson, S.A., Khan, M.R. and Ciple, D., 2023. Tactical opposition: obstructing loss and damage finance in the United Nations climate negotiations. *Global Environmental Politics*, 23(3), pp.95-119.

<sup>26</sup> Åberg, A. and Jeffs, N. (2022), *Loss and Damage finance in the climate negotiations: Key challenges and next steps*, Research Paper, London: Royal Institute of International Affairs, <https://doi.org/10.55317/9781784135461>

become even more pressing at a forum like COP28, which is also expected to provide key resolutions around the establishment of the Global Stocktake (GST), the Global Goal on Adaptation (GGA), and the Mitigation Work Programme, all of which are expected to raise the financial requirements from the global north. Alongside such commitments and the \$100 billion promise, the tentative estimates around loss and damage finance at USD 400 billion per year or between USD 290 and 580 billion by 2030<sup>27</sup>. Civil society organizations have called for a floor of USD 400 billion per year and an upward revision over time, as the impacts of climate change grow more frequent and severe<sup>28</sup>. Alongside the demands of loss and damage finance, there also exist problems around the focus of international finance. In 2022, the fossil fuel subsidies of 51 major economies reached USD 1 trillion, the largest annual value ever recorded and accounting for 40% more than total climate finance provided<sup>29</sup>. This has led to a situation where the ‘net climate finance’ (i.e., the value of climate finance flows minus financial flows to high-emissions and maladaptive activities) is negative and is actively hindering the efforts of countries to both mitigate and adapt to the adverse impacts of climate change.

While the establishment of the Loss and Damage fund is an unquestioned diplomatic triumph for the developing nations, many challenging questions remain for the “transnational committee” that has been set-up to make the recommendations around the operationalization of the fund at COP28. These questions range from technical queries to governance challenges and political concerns of both the developing and the developed countries. For example, it remains unclear if this mechanism would remain within the remit of the UNFCCC or act independently with its own mandate. Similarly, major questions remain around who the donors and the beneficiaries to the fund would be, with the COP27 decision text only referring to the



### Key Questions to be Addressed

**Members of the Transnational Committee**

24 member from the UNFCCC members, with 10 members from developed country Parties and 14 members from developing country Parties.

- 01 Governance**  
Who Pays?  
Who Benefits?  
Where will the fund be Sited?
- 02 Financial**  
How will the finance be disbursed?  
What would be the reporting requirements?
- 03 Scientific**  
How to define loss and damage?  
How will loss and damage be assessed?

<sup>27</sup> Mechler, R., Bouwer, L.M., Schinko, T., Surminski, S. and Linnerooth-Bayer, J., 2019. Loss and damage from climate change: Concepts, methods and policy options (p. 557). Springer Nature.

<sup>28</sup> <https://hivos.org/loss-and-damage-explainer/>

<sup>29</sup> Gordon, N.J., 2023. Climate Finance: An Overview. *Environment: Science and Policy for Sustainable Development*, 65(4), pp.18-26.

recipients of the fund as “developing countries that are particularly vulnerable”<sup>30</sup> to losses and damages from climate change. Under the existing UNFCCC categorization, which has not been amended since 1998, countries are divided into “developed” and “developing” nations. Annex-I refers to 43 “developed countries”, who have the responsibility to contribute to the US\$ 100 billion goal and are called Annex-I countries. Also, under this categorization, there are 155 “developing countries”, who are in receipt of these funds, and are known as Non-Annex-I countries.

This section explores the various challenges involved in the establishment and operationalization of the loss and damage fund, from three different perspectives. There remain political and diplomatic challenges around the division of donors, beneficiaries, and responsibilities under the UNFCCC system, as well as the climate finance challenges that deal with the scale, additionality, and the technical modalities of the loss and damage fund. Lastly, there are also challenges in ensuring adequate technical resources and knowledge that would be needed in the development and adoption of vulnerability and attribution metrics, as proposed by the EU during the COP27 discussions. These challenges remain part of the discussions and decisions around loss and damage financing at COP28, as we move towards the recommendations and way forward chalked out by the transnational committee.

The establishment of the Loss and Damage Fund follows from a year that saw the occurrence of multiple destructive extreme weather events, such as the extreme floods in Pakistan, Bangladesh, China, and Australia, multiyear droughts in Kenya and East Africa, extreme heat waves in Europe and India, Hurricane Ian in the USA, and Hurricane Fiona in the Caribbean and Canada. In 2022, 29 climate disasters were recorded, with the loss and damage estimated at over USD 1 billion<sup>31</sup>. These outlooks and the IPCC AR6 warnings<sup>32</sup> that highlighted that extreme events, especially heat waves and tropical cyclones are likely to become more frequent and more intense due to human-induced climate change ensured that loss and damage has finally become a central issue in the UNFCCC process. The mechanisms to operationalize the mobilization and disbursement of finance to the vulnerable countries remain a core priority for many developing countries and would be key area of focus on COP28. The transnational committee must provide tangible and acceptable solutions to translate several questions into operational recommendations and modalities.

## THE GOVERNANCE AND DIPLOMATIC CHALLENGES

The major governance challenges around financing the loss and damage fund are based around the political arguments around historical responsibilities, current emissions, and the expected contributions of countries to the proposed fund. Most of the global south espouse the principles of “common but differentiated responsibilities” (CBDR) and Article 9 of the Paris Agreement (“developed country Parties shall provide financial resources”)<sup>33</sup> to highlight that such a mechanism should be funded by the global north, especially the annex I countries. Furthermore, the UNFCCC also specifically “puts the onus on developed countries to lead the way”, acknowledging that the developed world is the “source of most past and current greenhouse gas emissions”. Such an approach also reflects the traditional stance of the developing countries, the small island states, and the climate justice groups at the UNFCCC, who have traditionally framed loss and damage as a principle to hold the major historical emitters accountable for causing climate change.

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<sup>30</sup> <https://unfccc.int/news/cop27-reaches-breakthrough-agreement-on-new-loss-and-damage-fund-for-vulnerable-countries>

<sup>31</sup> Newman, R. and Noy, I., 2023. The global costs of extreme weather that are attributable to climate change. *Nature Communications*, 14(1), p.6103.

<sup>32</sup> Bo-Tao, Z.H.O.U. and Jin, Q.I.A.N., 2021. Changes of weather and climate extremes in the IPCC AR6. *Advances in Climate Change Research*, 17(6), p.713.

<sup>33</sup> Babatunde, E.O., 2019. In the light of different national circumstances: equity under the Paris Agreement. *Cambridge L. Rev.*, 4, p.105.

<sup>34</sup> Kreienkamp, J. and Vanhala, L., 2017. Climate change loss and damage. *Global Governance Institute*, pp.1-28.

However, such a framing has always remained untenable to the developed world, who are concerned that such definitions could open them up to compensation and liability-based climate litigation around trillions of dollars. Instead, the developed world, especially the US, has historically maintained a stance of merging the issue of loss and damage with adaptation, which would enable the framing of all climate change impacts as “loss and damage” and therefore, be covered through the existing mechanisms around adaptation and mitigation<sup>34</sup>. While such an argument has now diminished with the emergence of loss and damage as a separate pillar of climate change, the ambiguities and arguments around financial responsibilities remain intractable challenges. The global north, especially the European Union, and with growing support from the SIDS, is also keen on ensuring that the responsibility of contributing to the fund is also borne by the emerging economies (and emitters) of the world, such as China, India, and Brazil to name a few. In the recent meetings of the transnational committee, the developed world has continued their stance in refusing to accept their obligations under the Convention of being the primary contributors to the Fund. Further debate has also emerged around the potential for payments from higher income countries (Israel, South Korea, Singapore) as well as the oil producing nations (Saudi Arabia, United Arab Emirates). However, given the importance of oil to their economies, researchers acknowledge that these states may also become vulnerable to the economic challenges that may arise as a result from the transition to a low-carbon economy.

As a response to these arguments, Chinese and Indian officials have remarked that while they support the loss and damage mechanism, China and India would not contribute financially to the loss and damage fund, citing the role of historic emitters and their own development priorities<sup>35</sup>. This argument is supported by the fact that United States and the EU have been historically responsible for 54 percent of climate damages in the global south<sup>36</sup>. Even if historical emissions are disregarded and emissions are only calculated from 1990, India and China are nowhere as polluting as the global north, the USA, and the EU<sup>37</sup>. It is also interesting to note that the emissions argument of the global north, which seeks to include India and China in the donor pool because of their emissions, seems to exclude the highly developed and polluting oil producing states in the middle east. No Arabian Gulf state is counted as developed in the UN climate process. But Qatar’s emissions per capita since 1990 are higher than the US’s or Germany’s. The emissions of the United Arab Emirates (UAE) and Saudi Arabia are similarly high<sup>38</sup>. Other high-polluting countries that have flown under the radar in such calls also include Israel, Singapore, and South Korea<sup>39</sup>. Such an argument also comes at a time when the developed world has also consistently failed to deliver on promises and commitments made regarding emissions reduction, with the latest UNFCCC reports highlighting that Annex-I countries (excluding economies in transition) reduced emissions by only 5.4 per cent between 1990 and 2019<sup>40</sup>. Such broken promises are also accompanied by the failure of the developed world to deliver on its climate finance promises, with the USA, which has the highest historical share of climate finance, consistently only contributing a fraction of its “fair share” to the various climate finance mechanisms<sup>41</sup>. Lastly, there is a need to consider the capacity of the developing world to pay for the loss and damage fund. It can be argued that the capacity to pay is much higher for developed countries. While the total GDP of emerging economies is rising, per capita income remains much below that in the developed world, especially when certain higher income countries such as Singapore and Qatar are removed from such calculations.

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<sup>35</sup> <https://www.carbonbrief.org/daily-brief/cop27-island-nations-want-china-india-to-pay-for-climate-damage/>

<sup>36</sup> Holz, C., Kemp-Benedict, E., Athanasiou, T. and Kartha, S., 2019. The Climate Equity Reference Calculator. *Journal of Open-Source Software*, 4(35), p.1273.

<sup>37</sup> Ju, B.G., Kim, M., Kim, S. and Moreno-Ternero, J.D., 2021. Fair international protocols for the abatement of GHG emissions. *Energy Economics*, 94, p.105091

<sup>38</sup> Evans, S., 2021. Analysis: Which countries are historically responsible for climate change. *Carbon Brief*, 10, p.2021.

<sup>39</sup> Evans, S., 2021. Analysis: Which countries are historically responsible for climate change. *Carbon Brief*, 10, p.2021.

<sup>40</sup> UNFCCC. 2022a. “Compilation and Synthesis of Fourth Biennial Reports of Parties Included in Annex I to the Convention.” United Nations. <https://unfccc.int/documents/476560> paragraph 21.

<sup>41</sup> Colenbrander, S., Cao, Y., Pettinotti, L. and Quevedo, A., 2021. A fair share of climate finance?. An initial effort to apportion responsibility for the \$100 billion climate finance goal. ODI: London, UK.

A concurrent argument to the “who pays?” debate is around the question of who the beneficiaries of the loss and damage fund would be. The decision text from COP27 says it should assist “developing countries that are particularly vulnerable” to climate change impacts<sup>42</sup>. However, such a vague phrase is open to significant subjective interpretation. Most of the developed countries believe that the recipient pool should be limited, stating their belief that the loss and damage fund will only support those classified as “particularly vulnerable countries”, a term that only leads to more ambiguity and confusion. Such a term also seems to indicate that not all developing countries (non-Annex-I) are eligible for support under such a mechanism. The EU had even stated a condition at COP27 that they would agree to the creation of such a fund only if the highest emitters (India and China, specifically) contributed to the fund and were also excluded from using the fund<sup>43</sup>. Similarly, the USA proposal sought to limit the eligibility of the countries to such a fund, by limiting the access to the fund to countries that had populations of less than five million people<sup>44</sup>. The AOSIS also put forward a proposal that such a definition be centred around the countries that have the “least capacity to cope and adapt” alongside their “susceptibility to harm and be adversely affected”<sup>45</sup>. Such a proposal seems to be tailored to exclude the developing countries with higher incomes in Asia and the Middle East from the eligibility of the fund. In the most recent meetings of the transnational committee, developed countries are aiming to restrict the access of the Loss and Damage fund to just two constituencies, the SIDS, and the Least Developed Countries (LDCs). Furthermore, the developed countries have also resisted any discussion on the scale of the fund, as well as the scope of their contributions. Developing countries estimate the scale of loss and damage financial requirements as at least US\$100 billion a year 2030<sup>46</sup> as an initial commitment, which is unlikely to be accepted by the developed nations.

However, developing countries disagree with this position, stating that the fund should operate “without discrimination”, and should be accessible to all developing countries<sup>47</sup>. The G77, through its chair Pedro Luis Pedroso Cuesta of Cuba, have maintained that the administrative arrangements should not prevent all climate-vulnerable developing nations from accessing the loss and damage fund or other broader sources of finance around loss and damage<sup>48</sup>. Furthermore, they argue that the decisions on the loss and damage fund should be based on the extremity of climate related events, rather than country groupings<sup>49</sup>. This means that instead of money from the fund going to only select countries, it must be released based on the severity of disasters and the country’s capacity to deal with it. The developing nations also believe that limiting the scope of eligibility for the loss and damage fund would automatically mean a reduction in the scale of the fund. Such a reduction would hamper, if not outright inhibit, the ability of the Loss and Damage Fund to address the varied and growing loss and damage needs of the world, given the rise in the severity and frequency of extreme events across the world. Such limitations would also ensure that catastrophic recent events, such as the Pakistan floods, may not be eligible for funding under the loss and damage mechanism. Given the major levels of poverty, underdevelopment and increasing climate vulnerability across the global south, it is imperative that the objective of the loss and damage fund aids in managing the impacts of worsening climate change, rather than becoming a political panacea that is only catered to the few at the expense of the many.

More recently, through the discussions of the transnational committee, the major issue of contention has been the debate around deciding where the new loss and damage mechanism will be situated. The

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<sup>42</sup> Wyns, A., 2023. COP27 establishes loss and damage fund to respond to human cost of climate change. *The Lancet Planetary Health*, 7(1), pp. e21-e22.

<sup>43</sup> Tietjen, B. and Gopalakrishnan, T., 2023. Loss and Damage Funding in the UN Climate Negotiations: From Dialogue to Reality. *Environment: Science and Policy for Sustainable Development*, 65(3), pp.18-28.

<sup>44</sup> <https://thewire.in/world/rich-countries-proposal-can-block-india-pakistan-from-accessing-loss-and-damage-fund>

<sup>45</sup> <https://www.climatechangenews.com/2022/12/08/which-countries-are-particularly-vulnerable-to-climate-change/>

<sup>46</sup> <https://www.unep.org/news-and-stories/story/what-you-need-know-about-cop27-loss-and-damage-fund>

<sup>47</sup> <https://www.climatechangenews.com/2023/09/25/ministerial-shows-fault-lines-on-climate-loss-and-damage-fund/>

<sup>48</sup> <https://www.reuters.com/sustainability/cop/tensions-soar-over-new-fund-climate-loss-damage-ahead-cop28-2023-10-23/>

<sup>49</sup> <https://thecommonwealth.org/news/blog-loss-and-damage-fund-size-design-and-agility-are-essential>



transnational committee will have to recommend whether the loss and damage should be a standalone fund or not, emphasizing clearly on its difference from existing complementary funding mechanisms. The establishment of such a fund has prior precedents in the financing mechanism of the COP, with the Adaptation Fund set up in 2001 and the Green Climate Fund in 2010. It also must be noted that Article 8 of the Paris Agreement has brought loss and damage under international law, establishing it as distinct from mitigation and adaptation (nominally, with equal standing)<sup>50</sup>. The establishment of a dedicated, separate financial mechanism for loss and damage would affirm the legal standing of loss and damage, along with mitigation and adaptation.

However, there is a clear dissension between how the developed and the developing countries see the siting of the loss and damage fund. The developed countries, led by the US, are pushing for the fund to be based in the World Bank. Their argument centres around the logistics of setting up the Fund, with the developed countries stating that setting up a new independent fund would take longer than having the World Bank host it. This follows on from the initial arguments around the structure of the Fund's board, where the US had pushed for the board to include seats for countries that pay into the fund. This proposal has been met with widespread outrage from developing countries and climate justice groups, who have accused the developed world of a "US-led power grab"<sup>51</sup>. Such concerns arise from the existing neo-colonial governance structures that already exist among the Bretton Woods institutions, the World Bank, and the International Monetary Fund (IMF). Most of the senior staff appointees at the IMF and the World Bank hail from the global north, with the two bodies maintaining their "agreement" of having European and American directors<sup>52</sup>, and the US remains the biggest shareholder of the World Bank and has unilateral control in choosing its leader. Such a structure means that the World Bank would never be accountable to either the UNFCCC or country governments through the COP process. Such a structure also raises questions about the inclusivity of the loss and damage financing mechanism, which should include representation from the global south in a rotational manner to enable all countries to have an equal voice in the disbursement of loss and damage finance.

Furthermore, there are grave concerns around whether the operational structures, the funding priorities, the process, and the modalities of the World Bank are fit for purpose to host the Loss and Damage fund. Developing nations have argued that the World Bank is too slow, inefficient, unaccountable and lacks the organizational structure to tackle climate change, with the World Bank only adding tackling climate change to its mission in 2023, post the announcement of the initial proposal of it being the host of the loss and damage fund and the meetings of the transnational committee in Marrakesh<sup>53</sup>. The developing countries believe the loan and debt-based financing structure of the World Bank, with delayed processes and lengthy accounting and reporting requirements, would present significant challenges for the global south, especially in terms of accessing finance in a timely manner in the aftermath of extreme events. Furthermore, there are concerns from civil society organizations and other developing country representatives, such as the chair of the Alliance of Small Island States (AOSIS), Diann Black-Layne of Antigua and Barbuda, that a World Bank hosted fund would present a further climate injustice, as it risks further indebting nations and fail to provide communities with direct access financing<sup>54</sup>. There are also concerns that the high hosting fees charged by the World Bank may also prevent it from attracting private capital and investment for loss and damage financing. The stance of the developing nations provides a spectrum of possibilities as the transnational committee moves to additional meetings prior to COP28, from stand-alone funds built from scratch, its hosting within an existing UNFCCC mechanism, or its siting within existing climate funds if it can meet the conditions of direct finance, access, timely delivery, and potential capitalization.

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<sup>50</sup> Amini, A., Abedi, M., Nesari, E., Daryadel, E., Kolahi, M., Mianabadi, H. and Fisher, J., 2023. The Paris Agreement's approach toward climate change loss and damage. *World Affairs*, 186(1), pp.46-80.

<sup>51</sup> <https://www.reuters.com/sustainability/cop/countries-deadlocked-loss-damage-fund-un-climate-summit-nears-2023-10-23/>

<sup>52</sup> Vestergaard, J. and Wade, R.H., 2015. Still in the woods: Gridlock in the IMF and the World Bank puts multilateralism at risk. *Global Policy*, 6(1), pp.1-12.

<sup>53</sup> <https://www.climatechangenews.com/2023/10/20/world-bank-controversy-sends-loss-and-damage-talks-into-overtime/>

<sup>54</sup> <https://antiguaobserver.com/small-islands-open-to-world-bank-hosting-loss-and-damage-fund-but-want-reform-and-fair-allocation-says-diann-black-layne/>

# THE CLIMATE FINANCE CHALLENGES

The transnational committee has the critical task of developing the standardized definitions, methodologies, and data access that would go into developing the criteria for funding to be mobilized and disbursed around loss and damage. Such definitions would be critical in ensuring that climate finance is used for the purposes of providing post-disaster relief. The lack of clear definitions has led to political muddles, where mobilization of climate finance is often double-counted and seen as fulfilling multiple objectives and requirements, rather than being earmarked for specific purposes under the UNFCCC mandates<sup>55</sup>. This leads to the major problem of additionality in climate finance for loss and damage, specifically that the loss and damage fund needs to meet “the urgent and immediate need for new, additional, predictable and adequate financial resources”, and ensuring that existing development and climate financing for other priorities is not diverted<sup>56</sup>. By its very nature, loss and damage financing could feasibly receive the least amount of funding from private donors, as it seeks to offset the incurred costs of climate change. It is very likely that the majority of “new and additional” finance needs to be mobilized from the governments of the developed world. There is a real risk that supposed “new and additional” funding for loss and damage will not be new and additional at all – it will simply be drawn from existing aid budgets and taken from other areas<sup>57</sup>. As such, there would be a need to ensure that the “new and additional” component of loss and damage financing is quarantined from the official development aid (ODA) commitments of the developed world to ensure its additionality. Furthermore, the committee need to also consider the level of centralization that would be involved in setting up such a fund, whether such a fund can only exist at a global level, or whether regional funds should be set up as subsidiaries to a global mechanism.

Beyond the specificities associated with defining loss and damage, the loss and damage fund also needs to overcome several financing hurdles so that it can be set up as a mechanism that is able to deliver the requisite scale of finance and aid in a timely manner to the areas most affected by climate change in the future. This leads to the challenges in devising the appropriate financial instruments that would be utilized to generate the loss and damage financing mechanisms. It is imperative that the resources of the loss and damage fund are made available as grants rather than loans that would increase the burden of the recipient countries. Research has also showcased that small grants, targeted for specific purposes, are more likely to achieve their objectives, empower and strengthen local communities, and have an impact on marginalized groups than large scale projects<sup>58,59,60,61</sup>. As such, it is critical that the transnational committee recommends the financial design of such instruments along the ideals of climate justice and resilience building and takes further inspiration from the proposals outlined in the Bridgetown Initiative, which has already inspired the setting up of the loss and damage fund.

The Loss and Damage fund, as well as broader climate finance, needs to reflect the reality that climate finance is both scarce and expensive, particularly for very poor countries. So far, climate finance for mitigation and adaptation has largely been disbursed in the form of loans. The proposal of setting the loss and damage fund within the World Bank also contributes to this fear, as the World Bank has traditionally only been a

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<sup>55</sup> 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, pp.129-137.

<sup>56</sup> <https://www.lossanddamagecollaboration.org/stories-op/hiding-in-the-technical-is-the-political-the-third-meeting-of-the-transitional-committee-tc3-inches-closer-to-operationalising-a-loss-and-damage-fund>

<sup>57</sup> <https://devpolicy.org/a-loss-and-damage-fund-two-big-challenges-20230622/>

<sup>58</sup> Chen, S. and Uitto, J.I., 2021. Small Grants, Big Impacts. *Evaluating environment in international development*, p.219.

<sup>59</sup> Bracking, S. and Leffel, B., 2021. Climate finance governance: Fit for purpose?. *Wiley Interdisciplinary Reviews: Climate Change*, 12(4), p.e709.

<sup>60</sup> Islam, M.M., 2022. Distributive justice in global climate finance—Recipients’ climate vulnerability and the allocation of climate funds. *Global Environmental Change*, 73, p.102475.

<sup>61</sup> Garschagen, M. and Doshi, D., 2022. Does funds-based adaptation finance reach the most vulnerable countries?. *Global Environmental Change*, 73, p.102450.

lending institution and has followed a loans-based approach when disbursing aid<sup>62</sup>. Similar challenges also arise when we consider the potential for concessional finance as a replacement for the current loan-based model, as concessional lending is significantly limited in its scope. Several MDBs offer concessional rates only to the poorest countries of the world, with a GDP per capita of less than USD\$1253 per year (5% of the world's population), which excludes all the "middle-income" countries in the world (62% of the world's population)<sup>63</sup>. Also, we should note that concessional lending continues to add to the indebtedness of climate vulnerable and poor countries across the world, which would further worsen if such lending were the only course of climate finance in the aftermath of climate disasters. A climate disaster can wipe out decades of development and investment in a very short while, rising to 200% of the GDP for small states, as with Dominica in 2017, or 10% for large states like Pakistan in 2022<sup>64</sup>. Disasters on this scale require substantial resources for relief, recovery, and reconstruction, and further compromise the financial abilities of countries to repay worsening debt burdens.

There are also issues with some of the other proposed solutions, such as insurance and climate bonds. The launch of the Global Shield, championed by the G20 and supported by the V20, showcases the insurance-based approach to addressing loss and damage, with heavy emphasis on private sector participation. However, such insurance approaches essentially ensure that the burden of repayment remains on the victims of climate change through insurance premiums. Avinash Persaud, special envoy to the Prime Minister of Barbados on climate finance, states that climate insurance "means the innocent victims of climate change will pay for the loss and damage caused by others: it is victim pays, just in instalments"<sup>65</sup>. Furthermore, such insurance payments, while being quick, often are highly inadequate to meet the scale of financial requirements in a post-disaster setting. The recovery costs of hurricane Irma in Antigua and Barbuda were estimated at US\$ 222 million<sup>66</sup>, while the government of Antigua and Barbuda received a pay out of US\$ 6.79 million from the CCRIF insurance scheme, covering 3% of the costs<sup>67</sup>. When Malawi suffered a drought in 2015/16 with an economic impact of US\$ 365.9 million, the ARC insurance pay out was US\$ 8.1 million, or 2.2%<sup>68</sup>. The scale of funding requirements is likely to result in insurance premiums becoming more expensive, that would put further burden on the vulnerable communities most affected by climate change. Also, it is yet unclear how climate risk insurance would translate to provide for slow-onset events. Similarly, climate bonds around extreme events, also known as catastrophe (CAT) bonds, tend to have even stricter clauses conditions than those linked to traditional insurance, with the initial purchase of such CAT bonds requiring a significant fixed expense component to the developing world. The CAT bonds market also generally showcases a lower level of liquidity, and are only available to institutional investors, raising questions about their ability to mobilize finance quickly and effectively in the aftermath of extreme events<sup>69</sup>.

Therefore, a loss and damage fund should be a grants-based mechanism, that seeks to enable countries to carry out relief and reconstruction measures without undertaking higher levels of future debt. The Bridgetown Initiative has proposed a model for reconstruction grants, that can become automatically available for the developing countries that suffer loss and damage over 5% of their GDP in a climatic event<sup>70</sup>. Furthermore, the committee should also explore more opportunities to alleviate the debt crises of countries, crises which are likely to compound because of increasing losses and damages from climate change. Proposals for such

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<sup>62</sup> Kopyński, D. and Wróblewski, M., 2021. Reimagining the World Bank: Global public goods in an age of crisis. *World Affairs*, 184(2), pp.151-175.

<sup>63</sup> Persaud, A., 2023. Breaking the Deadlock on Climate-The Bridgetown Initiative. *GREEN*, 3(1), pp.99-103.

<sup>64</sup> Persaud, A., 2023. Breaking the Deadlock on Climate-The Bridgetown Initiative. *GREEN*, 3(1), pp.99-103.

<sup>65</sup> <https://www.lossanddamagecollaboration.org/pages/global-shield-solution-or-distraction>

<sup>66</sup> Wilkinson, E., Arvis, B., de Suarez, J.M., Weingärtner, L., Jaime, C., Grainger, N., Simonet, C., Bazo, J. and Kruczkiewicz, A., 2021. Preparing for extreme weather in the Eastern Caribbean.

<sup>67</sup> <https://www.ccrif.org/node/11904>

<sup>68</sup> <https://reliefweb.int/report/malawi/malawi-receives-us142-million-drought-recovery-insurance-payout>

<sup>69</sup> Farid, M.M., Keen, M.M., Papaioannou, M.M.G., Parry, I.W., Pattillo, M.C.A. and Ter-Martirosyan, A., 2016. After Paris: fiscal, macroeconomic and financial implications of global climate change. International Monetary Fund.

<sup>70</sup> Persaud, A., 2023. Breaking the Deadlock on Climate-The Bridgetown Initiative. *GREEN*, 3(1), pp.99-103.

mechanisms include the potential for lending to include a natural disaster clause which would stipulate a temporary suspension of interest rate payments on debt owned by the country hit by climate disaster. More direct mechanisms can involve the inclusion of debt forgiveness as a component of climate finance, “debt-for-climate” swaps that involve providing debt relief to offset loss and damage costs. Along with such measures, that seek to enhance reconstruction and resilience of affected communities without creating larger debt traps, the committee must also consider finance mobilization mechanisms that would generate the most additionality in a climate just manner.

The Bridgetown Initiative proposes a mechanism to fund such a grant structure through a levy on the producers of fossil fuels, with the levy linked to the fluctuating gas and oil prices. It is proposed that for every ten-percentage point decline in oil and gas prices, the levy will increase by one percentage point. If oil and gas prices return to their pre-covid levels, this will generate over \$200bn per year, which can address a substantial grants-based need for loss and damage financing<sup>71</sup>. Alongside such a levy, other international tax and transfer mechanisms can also be considered by the transnational committee, such as levies on international container shipping, financial transactions and/or airline travel, which would not even need global implementation to generate the requisite amounts of funding. According to a 2012 Oxfam report for the UNFCCC, if the EU is able to implement an FTT across the EU for the ten countries who were considering it, it would generate about US\$ 510bn in funding<sup>72</sup>. Similarly, international shipping emissions amount to about 3% of global greenhouse gas emissions, and World Bank estimates show that a carbon tax on shipping could raise as much as \$50bn to \$60bn a year<sup>73</sup>. The proceeds of such levies can be mobilized for a grants-based mechanism, creating new and additional finance for loss and damage.

Another challenge for climate finance revolves around the issue of fragmentation, as the global finance landscape is already filled with dozens of multilateral and bilateral providers, each with their own requirements, procedures, and processes<sup>74</sup>. Several countries have also backed arguments that the funding for loss and damage be drawn from a “mosaic” of funding resources, such as private finance, MDBs, and existing international funds<sup>75</sup>. This places significant burden on potential recipients, particularly smaller countries who are often the most vulnerable but also can find it the most difficult to access finance. The experience of the developing countries with the Global Environmental Facility, the Adaptation Fund and the Green Climate Fund has highlighted that finance is often inaccessible and very slow-moving, especially in reaching the affected communities on the ground. It is critical that accessing funds under the loss and damage mechanism should be a smooth and manageable, especially for low-income countries and the global south. The smoothness of the funding process would be especially critical when reacting to extreme events and challenges, as time would be a critical consideration in mobilizing resources for aid response. To address such concerns, it is essential that the committee favours a system where loss and damage finance is delivered directly through government systems and budgets as much as possible, which would be ideal if the fund is to be grants-based in nature. At the same time, the committee must resist the urge to demand new institutions and mechanisms across the developing world, as such funding can be channelled to existing community groups such as agricultural co-operatives, community disaster committees or women already in charge of savings and microloans for direct, quick, and effective implementation on the ground.

It is also essential for the committee to resist negotiation and political calls and pressure to further fragment the aid process through sectoral and functional carve-outs. Furthermore, increasing fragmentation and bureaucratic processes can even lead to the temptations from donor countries to over-engineer the procedural aspects of the fund, sacrificing effectiveness and efficiency for political manoeuvring.

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<sup>71</sup> Persaud, A., 2023. Breaking the Deadlock on Climate—The Bridgetown Initiative. *GREEN*, 3(1), pp.99-103.

<sup>72</sup> Gore, T., 2012. The UNFCCC work programme on long-term finance. Oxfam International.

<sup>73</sup> Chowdhury, A. and Jomo, K.S., 2022. The climate finance conundrum. *Development*, 65(1), pp.29-41.

<sup>74</sup> Pickering, J., Betzold, C. and Skovgaard, J., 2017. Managing fragmentation and complexity in the emerging system of international climate finance. *International Environmental Agreements: Politics, Law and Economics*, 17, pp.1-16.

<sup>75</sup> Kempa, L., Zamarioli, L., Pauw, W.P. and Çevik, C., 2021. Financing measures to avert, minimise and address Loss and Damage: Options for the Green Climate Fund (GCF).

# THE SCIENTIFIC AND TECHNICAL CHALLENGES

The success of the Loss and Damage Fund depends on the willingness of countries, especially those in the global north, to contribute to the fund and provide the necessary resources to engage in significant and meaningful interventions. As such, such funding mechanisms should be grounded in significant scientific methodology, rather than being dependent on contentious political commitments and shifting policy priorities. As highlighted in the timeline of loss and damage negotiations across COPs, these concerns have consistently plagued the issue of loss and damage throughout the history of the UNFCCC and COPs, with loss and damage being considered as a component of adaptation for several years. With the release of the IPCC's Fourth Assessment Report in 2007, it became clear that mitigation efforts are insufficient to avoid the impacts of climate change, and that such impacts may move beyond the limits of adaptation<sup>76</sup>. There was also growing recognition that losses and damages can occur even before reaching adaptation limits, especially across the climate-vulnerable developing countries and the SIDS. Small islands were already facing disproportionate losses and damages and where projected losses and damages are particularly high, alongside the added dangers of sea-level rise and economic reversals. However, despite the existence of loss and damage as a third pillar of climate change in the Paris Agreement, it is critical to note that the UNFCCC does not have an agreed-upon definition of loss and damage. This leads to considerable ambiguity, complexity, and controversy, as well as the challenge of linking the critical issue of loss and damage to the enshrined principles of "common but differentiated responsibilities" within the UNFCCC.

It is essential to note that loss and damage financing mechanisms need to take cognizance of both economic and 'non-economic' losses, 'including forced displacement and impacts on cultural heritage, human mobility and the lives and livelihoods of local communities' experienced as a result of climate change<sup>77</sup>. Therefore, loss and damage research and framing should revolve around vulnerability to highlight both the risks and the losses faced by communities through climate change. We have already seen a move towards the same, with the loss and damage fund text calling for the fund to be made available for the "most vulnerable" countries. However, it is important that the definitions of vulnerability in such a context be defined clearly and measurably, to reflect socio-economic and power relationship drivers, alongside biophysical ones. Such a definition of vulnerability should seek to link causality with the root causes of climate change, especially the socio-economic processes and the power relationships that form the identity of populations at different scales, and how these processes and relationships further influence the exposure, sensitivity, and adaptive capacity of such communities to the impacts of climate change, with its attendant losses<sup>78,79</sup>. However, challenges remain around such a framing, largely because vulnerability has diverse and ambiguous definitions within the IPCC and UNFCCC spheres<sup>80</sup>, and researchers have criticized such definitions for attributing more significance to climatic factors rather than socio-economic ones in identifying root causes<sup>81,82,83</sup>. Vulnerability research also suffers from limitations within its methodological toolkits, with researchers highlighting that vulnerability indices often fail to capture the unique contextualization between

<sup>76</sup> Solomon, S., Qin, D., Manning, M., Chen, Z., Marquis, M., Averyt, K., Tignor, M. and Miller, H., 2007. IPCC fourth assessment report (AR4). Climate change, 374.

<sup>77</sup> Young, J.C., 2021. Environmental colonialism, digital indigeneity, and the politicization of resilience. *Environment and Planning E: Nature and Space*, 4(2), pp.230-251.

<sup>78</sup> Bankoff, G., 2022. Remaking the world in our own image: Vulnerability, resilience, and adaptation as historical discourses 1. In *Why Vulnerability Still Matters* (pp. 15-32). Routledge.

<sup>79</sup> Naylor, A., Ford, J., Pearce, T. and Van Alstine, J., 2020. Conceptualizing climate vulnerability in complex adaptive systems. *One Earth*, 2(5), pp.444-454.

<sup>80</sup> Oculi, N. and Stephenson, S.R., 2018. Conceptualizing climate vulnerability: Understanding the negotiating strategies of Small Island Developing States. *Environmental Science & Policy*, 85, pp.72-80.

<sup>81</sup> Kelman, I., Gaillard, J.C., Lewis, J. and Mercer, J., 2016. Learning from the history of disaster vulnerability and resilience research and practice for climate change. *Natural Hazards*, 82, pp.129-143.

<sup>82</sup> Ford, J.D., Pearce, T., McDowell, G., Berrang-Ford, L., Sayles, J.S. and Belfer, E., 2018. Vulnerability and its discontents: the past, present, and future of climate change vulnerability research. *Climatic change*, 151, pp.189-203.

<sup>83</sup> Bassett, T.J. and Fogelman, C., 2013. Déjà vu or something new? The adaptation concept in the climate change literature. *Geoforum*, 48, pp.42-53.



different populations influences by space, time and place, as well as the nature-society dualism that can both exacerbate and mediate vulnerability to climate change<sup>84</sup>. Therefore, such indices often fail to present meaningful and nuanced comparisons across different sites and nations, leading to questions about how such indices can lead to equitable fund distributions<sup>85</sup>. Furthermore, there are also issues in understanding how the non-physical and less tangible losses from climate change would be monetized, and how such losses can be defined and valued from an empirical and objective perspective<sup>86</sup>.

These challenges have been previously highlighted by the G77 countries, who have maintained that current definitions and measurements of climate vulnerability that seek to compare countries are insufficient<sup>87</sup>. While the framing of the loss and damage fund represents a real opportunity for the concept of vulnerability to drive steps towards equitable distributions within the UNFCCC, many challenges remain that can further exacerbate or define new inequities within such a system. It is very likely that accounting for social and cultural losses within such a framework would be difficult, and we must also consider that the vagueness of the definition of "vulnerability" within the UNFCCC further contributes to the inadequacy of current indexes or metrics to measure and quantify vulnerability.

Lastly, it is essential to understand the challenges around data collection and reporting challenges that arise in several poor and developing countries. These challenges must be taken into account to devise a flexible and responsive loss and damage fund, that seeks to build its reporting and data metrics over time rather than setting up such requirements as an additional barrier for access. It is essential that conversations around reporting metrics and data collection, such as those espoused by the EU, also necessitate conversations around technology and knowledge transfers, as such metrics would be reliant on quality and precise long-term data, accurate weather models, and evenness of research resources. Many low-income and developing countries, where attribution science and models would play a major role in assessing finance requirements, lack access to quality research data, do not generally store meteorological data in digital form, and have fewer weather stations and data collection centres than the developed countries. These lack of capacities further contribute to the inequities and challenges of trust within the developed and the developing world, as conflicting assessments and reporting solutions become points of contestation. Therefore, these data gaps and the lack of research infrastructure are key issues that must be addressed as part of the process of applying reporting metrics to the modalities of the fund, so that assessments and reporting of loss and damage can be undertaken in an uniform and equitable manner.

## INDIA IMPLICATIONS AND ROLE

India ranks seventh amongst the 10 countries most affected by climate change in the Global Climate Risk Index 2021 and has faced several devastating climate disasters in the last few years<sup>88</sup>. In 2021, a London-based global think tank, the Overseas Development Institute, estimated that India may lose 3% to 10% of its gross domestic product (GDP) annually by 2100 due to climate change<sup>89</sup>. As a developing country that is becoming increasingly vulnerable to climate change, the loss and damage mechanism is critical sphere for India to engage in from a scientific, financial and political perspective.

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<sup>84</sup> Thomas, K., Hardy, R.D., Lazrus, H., Mendez, M., Orlove, B., Rivera-Collazo, I., Roberts, J.T., Rockman, M., Warner, B.P. and Winthrop, R., 2019. Explaining differential vulnerability to climate change: A social science review. *Wiley Interdisciplinary Reviews: Climate Change*, 10(2), p.e565.

<sup>85</sup> Barnett, J., Lambert, S. and Fry, I., 2008. The hazards of indicators: insights from the environmental vulnerability index. *Annals of the Association of American Geographers*, 98(1), pp.102-119.

<sup>86</sup> Tschakert, P., Ellis, N.R., Anderson, C., Kelly, A. and Obeng, J., 2019. One thousand ways to experience loss: A systematic analysis of climate-related intangible harm from around the world. *Global Environmental Change*, 55, pp.58-72.

<sup>87</sup> Naylor, A.W. and Ford, J., 2023. Vulnerability and loss and damage following the COP27 of the UN Framework Convention on Climate Change. *Regional Environmental Change*, 23(1), p.38.

<sup>88</sup> Eckstein, D., Künzel, V. and Schäfer, L., 2021. *The global climate risk index 2021*. Bonn: Germanwatch.

<sup>89</sup> Picciariello, A., Colenbrander, S., Bazaz, A. and Roy, R., 2021. *The costs of climate change in India. A review of the climate-related risks facing India, and their economic and social costs*. ODI Literature review. London: ODI.

In the UNFCCC and COP proceedings, India has a dual opportunity to further cement itself as the leader of the global south, while also holding the developed countries accountable for their financing commitments. Apart from the historical leadership showcased by India around CBDR and Adaptation in the UNFCCC process<sup>90</sup>, India has also already undertaken several leadership initiatives in the field of loss and damage, such as the launching of the Coalition of Disaster Resilient Infrastructure (CDRI), a multi-stakeholder global, governmental, and multilateral partnership to address the challenges of building resilience into infrastructure systems and development associated with it<sup>91</sup>. Under India's leadership, CDRI is currently engaged in a Fiscal Risk Assessment Study that would support the development of a comprehensive disaster-risk financing strategy in more than 35 countries and multilateral entities. Furthermore, India is also a founding member of the Infrastructure for Resilient Island States (IRIS), hosted at CDRI in India, that seeks to promote resilient, sustainable, and inclusive infrastructure development in SIDS. Therefore, through its strong leadership, India is uniquely positioned to act as the voice of the global south in the dialogues around loss and damage. Alongside its political capital, India through its strong institutional and technological capacity, can provide technical and scientific expertise as its contribution to the loss and damage mechanism and through CDRI, lead a network of south-led research institutions around loss and damage. Such a network would enrich climate science, as it would shed more light on vulnerable regions, build research capacities, and aid in the shift away from the Eurocentric technical research around climate change.

Alongside such initiatives, the loss and damage mechanism provide another opportunity for India and other developing countries to put pressure on the developed countries to meet their financial obligations and provide timely finance for loss and damage. Climate justice considerations and the scale of historical emissions both support the stance championed by the developing countries that the developed countries are responsible for loss and damage, which is also in line with the principles of the UNFCCC, which specifically acknowledges that the developed countries are the "source of most past and current greenhouse gas emissions"<sup>92</sup>. Though such a stance is unlikely to be tenable in the long run, given the intransigence of the US and the EU and their fears of liability, such a stance enables the developing world to push for increased finance and technological support for adaptation, which can help in reducing loss and damage requirements. Furthermore, such a stance can also help in pushing for countries to challenge the developed world to enhance and accelerate emissions mitigation and provide support for the same. While India is unlikely to benefit from the loss and damage fund, given the limited size and scope of the mechanism, it can leverage the political and negotiations opportunities provided by such a fund to both further its role as a voice for the global south as well as harness more financial and technical support for adaptation and mitigation.

It must also be noted that calls from the global north for India to contribute to funding mechanisms and enhance climate ambitions are only going to increase on a yearly basis. Therefore, it can be a strategic advantage for India to proactively engage with the loss and damage mechanism and seek to dictate the terms of its commitments and engagements in the UNFCCC process, ensuring that it follows sustainable and optimal pathways to manage its development and climate needs. India's net-zero announcements provide a precedent and blueprint for how such proactive agenda-setting can enable India to follow optimal strategies and dictate commitment modalities without interference from the global north. The process of the setting up of the loss and damage fund provides India with another such opportunity to position itself as a global leader in fighting climate change and shape the narrative around loss and damage finance. By harnessing the impetus built through its G20 presidency and providing scientific and technical assistance,

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<sup>90</sup> Sengupta, S., 2019. India's engagement in global climate negotiations from Rio to Paris. *India in a warming world: Integrating climate change and development*, pp.114-41.

<sup>91</sup> <https://www.cdri.world/strategicinitiatives>

<sup>92</sup> <https://unfccc.int/process-and-meetings/what-is-the-united-nations-framework-convention-on-climate-change>

India can dictate its engagement with the loss and damage fund and provide a voice for the global south in a platform where it is most required. Furthermore, such leadership and engagement can provide India with significant soft power potential, enabling it to leverage such strengths in other negotiations and geopolitical benefits. Pursuing such commitments and benefits should be the strategy for India at COP28, which would enable the country to set its own narrative around loss and damage, rather than reacting and consistently having to address increasing dialogues from the global north (and even some SIDS) countries.

Beyond the UNFCCC processes, the last year has seen a rise in India's drive to increasingly position itself as a voice for the global south, as showcased through statements, events, and commitments during the G20 presidency. One of India's major initiatives has been the reform of the global financial architecture, especially the Bretton Woods institutions and MDBs<sup>93</sup>. Such reform is especially critical to the achievement of the sustainable development goals (SDGs) and to combat climate change. With this impetus and the learnings from these processes, India has a unique opportunity to engage with climate finance and the loss and damage mechanism from a reformist position that seeks to reorient global power structures, provide more agency and leadership to the global south, and push for transparent and inclusive financial structures. Such a position also aligns with India's historical stance in the UNFCCC and the considerations of climate justice. The discussions around the loss and damage mechanism provide India an opportunity to push for such a reformist agenda and overhaul the current fragmented and consolidated climate finance landscape. Furthermore, these discussions also take added importance, considering their corresponding impacts on critical decisions around the Global Goal on Adaptation (GGA) and the Global Stocktake (GST) in COP28. Such a negotiating position, based on India's history, recent financial achievements in the G20 and the principles of climate justice, can be the catalyst for the reform of the global climate finance architecture and can serve as a pilot for more inclusive financial decision-making. Such leadership would also emphasise India's commitment to its G20 agenda and provide a soft power boost in negotiations with the developed world.

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<sup>93</sup> <https://www.adb.org/news/features/indias-g20-presidency-opportunity>







## About TERI

We are an independent, multi-dimensional organization, with capabilities in research, policy, consultancy and implementation. We are innovators and agents of change in the energy, environment, climate change and sustainability space, having pioneered conversations and action in these areas for over four decades.

We believe that resource efficiency and waste management are the keys to smart, sustainable and inclusive development. Our work across sectors is focused on

- » Promoting efficient use of resources
- » Increasing access and uptake of sustainable inputs and practices
- » Reducing the impact on environment and climate

Our research, and research based solutions have had a transformative impact on industry as well as communities. We have fostered international collaboration on sustainability action by creating a number of platforms and forums. We do this by translating our research into technology products, technical services, as well as policy advisory and outreach.

Headquartered in New Delhi, we have regional centres and campuses in Gurugram, Bengaluru, Guwahati, Mumbai, Panaji, and Nainital. Our 750-plus team of scientists, sociologists, economists and engineers delivers insightful, high quality action-oriented research and transformative solutions supported by state-of-the-art infrastructure.

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