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# Loss and Damage in INDCs

An investigation of Parties' statements on L&D and prospects for its inclusion in a Paris Agreement

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## Key Pointers

Loss and Damage (L&D) refers to the impacts of climate change that have not been averted by mitigation or adaptation, including irreversible losses and economic damages.

At COP 20 and in the lead up to COP 21, developed countries proposed to delete loss and damage from the negotiating texts while many developing countries emphasized the need for urgent action and its inclusion.

Although Parties were not officially invited to include loss and damage in their Intended Nationally Determined Contributions, 57 Parties mentioned "loss," "damage," or "loss and damage." Many of these Parties included estimates of the costs of recent or future losses and damages.

23 Parties explicitly mentioned the issue of "loss and damage," some referencing national actions planned or implemented to address loss and damage. Many call for international support for their efforts or for creation of a loss and damage compensation mechanism.

The issue of loss and damage is rising on the global agenda. Still, the question of whether to include L&D in a Paris agreement has serious potential to divide developed and developing countries at COP 21.

Swift international action on loss and damage is crucial to the futures of the world's developing countries.

*This paper discusses individual nations' experiences with Loss and Damage (L&D), their plans to respond, and their calls for international support, as expressed in their Intended Nationally Determined Contributions (INDCs). It also considers the developed-developing nation divide that persists in support for addressing loss and damage within the COP and the importance of including L&D in a Paris agreement.*

## **Background**

A successful conclusion to the historic two-week conference of the U.N. Framework Convention on Climate Change (UNFCCC) to be held in Paris this December could well hinge on how loss and damage fits into the final agreement. Although the question of how a fully realized loss and damage mechanism under the UNFCCC would function remains contentious, it is now widely understood that the term 'loss and damage' refers to irreversible losses (i.e. loss of human life, loss of land to rising seas) and damages that can be repaired at great economic cost (i.e. destroyed infrastructure) resulting from climate-related disasters.<sup>1</sup> Pressure to create an effective loss and damage mechanism under the UNFCCC has grown in recent years in response to the inadequacy of emissions reductions and adaptation support for vulnerable nations already experiencing the impacts of climate change. However, calls to address L&D largely come from the same groups of developing nations at each UNFCCC Conference of the Parties (COP) and are not typically echoed by developed countries, which fear institutionalization of a mechanism that will assign liability and require compensation for losses and damages arising from climate-related disasters in vulnerable nations. Therefore, the issue of loss and damage has not only grown more prominent in recent years, but has emerged as a key fault line with the potential to derail negotiations.

Treatment of loss and damage in recent COPs gives insight into how loss and damage could prove a divisive issue in Paris. At COP 19 in 2013, the UNFCCC created a mechanism on loss and damage, dubbed the "Warsaw International Mechanism," which

endeavors to address L&D from extreme and slow onset events in countries “particularly vulnerable” to climate change impacts. Under the WIM, the UNFCCC works primarily to close knowledge gaps on loss and damage by collecting, sharing, and managing relevant data and to coordinate and oversee vulnerable Parties’ efforts to assess and implement means to address L&D.<sup>ii</sup> The WIM is subject to review by the full COP in 2016.<sup>iii</sup> At COP 20, held last year in Lima, three groups of vulnerable nations (the Least Developed Countries, the Small Island Developing States, and the Africa group) called repeatedly for the decision text to be revised to recognize loss and damage as an important issue in and of itself, not only as a subset of adaptation. However, developing countries, including the U.S., Canada, Switzerland, Russia, and Australia, pushed for deletion of loss and damage from the text. In the end, loss and damage was removed from the body of the decision and included only as a reference to the WIM in the text’s preamble.

In the lead up to COP 21, the 133 countries in the G77 and China bloc and the 43 countries of the Climate Vulnerable Forum have joined the LDCs, AOSIS, and the Africa group in stating that loss and damage is an essential part of the Paris agreement.<sup>iv</sup> The latest draft of the Paris agreement<sup>v</sup> includes two options on the topic of loss and damage: one, proposed by the U.S., Canada, Australia, Japan, and Switzerland, is for there to be no reference to loss and damage as its own issue area in the agreement.<sup>vi</sup> The other, proposed by the G77 + China, would establish a mechanism on loss and damage to develop and elaborate on the work of the existing Warsaw International Mechanism. This expanded mechanism would “promote and support the development and implementation of approaches to address loss and damage,” be supported through the financial mechanism of the UNFCCC, establish a climate change displacement coordination facility, and begin a four-year process of developing “approaches to address irreversible and permanent damage” resulting from climate change.<sup>vii</sup>

It is crucial to consider how loss and damage will be addressed by the UNFCCC and at the national level as the impacts of climate change grow more severe in the coming years, especially should mitigation and adaptation commitments under the Paris agreement prove insufficient to avert dangerous

warming. Useful for gauging nations’ stances on the issue of loss and damage and understanding the extent of losses and damages individual nations have already experienced are the Intended Nationally Determined Contributions (INDCs) Parties have submitted to the UNFCCC over the course of the past year. All Parties were asked to submit INDCs detailing their mitigation contributions in advance of the Paris COP and were invited to consider including an adaptation component as well. It was also suggested that Parties include information to increase the clarity and transparency of their mitigation commitments, such as information on their goal’s reference point, time frame, and period of implementation. Although Parties were never officially “invited” to mention loss and damage in their INDCs, many developing countries did so. This briefing uses mentions of loss and damage in Parties’ INDCs to draw conclusions about how individual nations are already experiencing, addressing, and/or planning to address loss and damage, how these nations hope to see loss and damage incorporated into the Paris agreement, and how these nations might be affected if a loss and damage mechanism is or is not ultimately included in the agreement.

## **Loss and Damage in INDCs**

Out of 153 submitted INDCs, 57 mention climate-related losses, damages, or the issue area of “loss and damage” specifically.<sup>1</sup> Other prominent loss and damage-related topics include flooding (mentioned in 34 INDCs), sea level rise (mentioned in 12), reduced agricultural productivity (mentioned in 19), and infrastructure damages (mentioned in 21).

34 of these 57 INDCs do not mention the issue area of “loss and damage” specifically, but use the terms “loss” and/or “damage” in providing estimates of costs, deaths, injuries, and other harms resulting from recent climate-related events, such as hurricanes and floods. For example, Mozambique’s INDC states that floods from 2000 to 2015 affected about 4,629,000 people, caused 1,204 deaths, and damaged 1,176,000 houses, 130 aqueducts, 119 bridges, 41 drifts, and 15,512 kilometers of roads. The INDC also estimates the cost of these events to

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<sup>1</sup> Excluding INDCs published exclusively in Arabic, Chinese, or Spanish (those submitted by China, Equatorial Guinea, Guatemala, Honduras, and Iraq).

be 334.4 million USD. Many of the INDCs that address loss and damage in this manner also provide estimates of projected damages under future climate scenarios. For example, Djibouti's INDC estimates damages for the period from 2010 to 2060 under a 2°C scenario, a 4-5°C scenario (each excluding natural catastrophes), and a 10,000 year flood scenario to be 5 billion USD, 9 billion USD, and 65 billion USD, respectively. The INDC then concludes that even under an "optimistic" climate scenario, "the cost of the damage is likely to exceed US \$5 billion."

23 countries mention the issue of "loss and damage" explicitly, including **Antigua and Barbuda, Barbados, Cambodia, Colombia, Costa Rica, Côte d'Ivoire, Dominica, Dominican Republic, Fiji, Gambia, Haiti, India, Malawi, Myanmar, Philippines, Republic of Moldova, Serbia, Sierra Leone, Suriname, Uruguay, Vanuatu, Vietnam, and Zambia**. Since these mentions of "loss and damage" reference the issue as it is institutionalized under the UNFCCC, they are particularly significant to its prospects in Paris. Since the content of these INDCs surrounding "loss and damage" gives insight into each Party's stance on the issue and its national efforts to address L&D, each INDC's statement on "loss and damage" is summarized below.

- **Antigua and Barbuda's** INDC states that because "physical adaptation measures will not always be enough to prevent significant loss and damage" to the nation's infrastructure and economy, especially its tourism industry, seaports, road networks, fisheries, and agricultural productivity, "a loss and damage mechanism is integral to building resilience to climate change." Antigua and Barbuda also pledges that by 2030, an affordable insurance scheme will be available for farmers, fishers and residential and business owners to cope with climate-related losses, and all buildings will be "improved and prepared for extreme climate events."
- **Barbados's** INDC recognizes that "sea level rise, storm surges and inundation, [and] increased frequency in tropical storms" will pose challenges to the coastal zone and particularly the tourism sector "in terms of potential loss and damage to key infrastructure."
- **Cambodia's** INDC includes figures on the damages and losses caused by the region's devastating 2013 floods, then references the Cambodia Climate Change Strategic Plan, which pledges to "promote... participatory approaches in reducing loss and damage due to climate change."
- **Colombia's** INDC provides statistics on recent damages caused by climate-related events, especially flooding. It also states that it understands the importance of ambitious mitigation in light of the fact that "mitigation actions reduce the risk of loss and damage as well as future adaptation costs."
- **Costa Rica's** INDC states that loss and damage has thus far most affected its public infrastructure and therefore pledges that, by 2020, the country will develop a "national vulnerability monitoring program for infrastructure during floods, droughts, landslides, and sea level rise" in order to "identify and correct physical vulnerabilities on infrastructure and human settlements." Costa Rica's submission also explains that the adaptation goals proposed in its INDC "try to confront the challenge of recurrent loss and damage" resulting from extreme hydro-meteorological events.
- **Côte d'Ivoire's** INDC quantifies losses and damages in terms of human lives lost, damages due to coastal erosion, losses in agricultural productivity, and infrastructure damages. It also includes a plan to build resilience against coastal erosion by, in part, systematically evaluating erosion-related losses and damages to ensure post-disaster recovery and reconstruction.
- **Dominica's** INDC states that "as a developing country with limited economic output facing serious challenges" in the form of poverty eradication efforts, Dominica "cannot afford to continue financing the loss and damage" resulting from climate change. Therefore, Dominica "seeks an equitable transfer of international climate change financing" to compensate its losses and damages, since it has made "no net contributions" to global emissions and exports renewable energy.

- **The Dominican Republic's** INDC includes a section devoted to the issue of loss and damage. The section provides statistics on economic damages associated with hydro-meteorological events in recent years, specifies which economic sectors have been most affected, and acknowledges that smaller and recurrent events have also caused major damages to property, crops, and livelihoods.
- **Fiji's** INDC recognizes the challenge that "there is a need for greater understanding of the impacts of climate change" and therefore proposes a short-term, national solution of developing "a comprehensive assessment framework, including adoption of the damage and loss assessment methodology by 2015."
- **Gambia's** INDC also includes a section devoted to loss and damage. This section expresses that it is "critical...to develop and implement" an "effective disaster preparedness and response strategy" in response to loss and damage, recognizes "critical gaps and constraints" that currently exist, and proposes a number of activities to reduce the risk and vulnerabilities of Gambian communities. These include strengthening disaster risk reduction through capacity building, integrating it with adaptation and into education and healthcare, improving building codes and zoning, strengthening climate change early warning systems, and empowering young people as advocates for disaster risk reduction.
- **Haiti's** INDC states that Haiti's climate policy priority is adaptation to climate change and response to loss and damage, although it also pledges that Haiti will contribute to the global effort to limit warming to 2°C. Haiti states that it will "respond to the losses and damages caused by extreme weather events" and limit recurrent climate-related GDP losses by fulfilling adaptation needs and providing support to the insurance industry for the management of losses from climate-related disasters.
- **India's** INDC acknowledges the importance of the link between "adaptation, disaster risk reduction and loss and damage" and explains that India has laid down the Sendai Framework for Disaster Risk Reduction in response. However, it expresses that there remains "an urgent need for finance to undertake activities for early warning system, disaster risk reduction, loss and damage and Capacity building at all levels."
- **Malawi's** INDC mentions "loss and damage" in reference to the severe floods that ravaged the nation in 2015 and caused loss and damage with a total cost of an estimated 335 million USD, with reconstruction costs of 494 million USD.
- **Myanmar's** INDC states that the "significant loss and damage" Myanmar has experienced in recent years is due to its limited capacity to "reduce risk and mitigate the effect of climate change," which arises from its "lack of technical and human resources" and from its "financial and legislative processes." The INDC also explains that following Cyclone Nargis in 2008, Myanmar has "consistently invested" in improving national capacity to respond to and recover from disasters and in "reconstructing in a sustainable manner which will mitigate future loss and damage." However, because the scale of sustainable rehabilitation necessary is beyond Myanmar's current capacity, the nation requires "continuing support."
- **The Philippines'** INDC includes a section devoted to loss and damage. This section states that the Philippines understands minimization of loss and damage to be foundational to climate planning, as minimizing L&D will "ensure achievement of national development targets through building capacities and enhancing resilience." The INDC also "assumes that loss and damages...will not require diversion of substantial resources for rehabilitation and reconstruction" that would adversely affect the country's development and ability to meet its mitigation targets. In other words, the Philippines requires technology transfer and other support for loss and damage minimization in order to avoid compromising mitigation and adaptation efforts.
- **The Republic of Moldova's** INDC estimates costs resulting from droughts and floods in 2007, 2010, and 2012. It also states that since the intensity and frequency of such events will increase as a result of climate change, "the cost of inaction would be devastating" and "estimates

of future costs and benefits suggest that every euro spent on flood protection would avoid six euros of cost generated by damage.”

- **Serbia's** INDC devotes a section to “loss and damage associated with extreme events in the period 2000-2015,” which provides estimates of the costs of material, agricultural, and financial damages and loss of life associated with recent instances of drought, high temperatures, and flooding. It also states that there is currently no record or analysis of the damage resulting from long-term, slow-onset changes.
  - **Sierra Leone's** INDC devotes a section to loss and damage, placing it on equal footing with mitigation and adaptation. The loss and damage component of the INDC sets out four priority actions: (1) adopting disaster risk reduction policy into the nation’s comprehensive climate policy, (2) implement the Disaster Management Department (DMD) policy and action plan, (3) establish and/or strengthen the national DMD council, and (4) establish a national DMD agency as the primary government agency for climate change response.
  - **Suriname's** INDC provides projections of future losses and damages and identifies 2028 as the year when, based on current trends, the country will inevitably experience “huge losses and irreversible damages” that will “impact the very way of life of the Surinamese people.” It also states that “Suriname’s dilemma is whether to continue to invest heavily in adaptation or relocate and rebuild its entire economy away from the threat of the rising sea.” Finally, the INDC identifies “four critical elements necessary for international collaboration”: direct access to climate finance, compensation for loss and damage, technology transfer, and compensation for forest climate services.
  - **Uruguay's** INDC states that by 2030, Uruguay expects to have accomplished a series of adaptation actions, if provided adequate support. Two of these adaptation actions mention loss and damage. The first is participatory development and implementation of monitoring and reporting systems on adaptation and loss and damage. The second is articulation and development of information
- services for “continuous monitoring, risk mapping and loss and damage evaluation.”
  - **Vanuatu's** INDC references Vanuatu’s existing National Climate Change and Disaster Risk Reduction Policy, which identifies five key adaptation priority areas: vulnerability and impact assessments, disaster risk reduction, community-based adaptation, loss and damage, and ecosystem-based approaches.
  - **Vietnam's** INDC states that since Vietnam is facing losses and damages “beyond its resilience and capacity,” even after “thorough application” of mitigation and adaptation measures, mechanisms to share and manage loss and damage must be considered at the national and international levels. The INDC acknowledges the importance of “adaptation measures to prevent future losses,” but reiterates that they “exceed the nation’s capacity.” Finally, it expresses that expenses for remedying damages are expected to increase significantly in coming years.
  - **Zambia's** INDC estimates the impact of losses and damages on GDP over a 10-20 year planning horizon, broken down by economic sector. Under an adaptation planning section devoted to “Enhanced capacity building, research, technology and finance for adaptation,” the INDC designates as a “priority action” the development of an insurance market against climate-induced risks related to agriculture and infrastructure and includes “reduced loss and damage” under a list of co-benefits.

### **Discussion of the INDCs’ Mentions of Loss and Damage**

The INDCs reveal that many Parties to the UNFCCC are willing to state officially that they consider the urgent confrontation of loss and damage central to the development of their economies and the wellbeing of their citizens. Therefore, despite the facts that the WIM’s functions are largely limited to collection and dissemination of information and that the global North continues to argue for L&D to get short shrift in UNFCCC agreements, developing countries are attempting to move forward on the issue of loss and damage on their own. Many INDCs display that Parties are

already planning and implementing loss and damage-related initiatives at the national level, while also calling for an effective international mechanism on L&D. The national initiatives mentioned in the INDCs include development of vulnerability monitoring and loss and damage assessment programs, establishment of frameworks and government agencies for disaster risk reduction, and creation of insurance schemes. However, many of these pledges by developing countries to reduce their own vulnerabilities to future losses and damages are linked to statements expressing their need for financial support, technology transfer, or L&D compensation from other nations. Many Parties that mention “loss and damage” in their INDCs without detailing a related national plan also state that they require international support for loss and damage response. Therefore, national loss and damage initiatives being planned and implemented in some nations should not put anyone concerned about future losses and damages in vulnerable countries at ease. Although the issue of loss and damage is perhaps now more targeted by national climate policies than it ever has been before, as climate change advances, it is also growing increasingly urgent that the international community support national efforts to respond to L&D and create an effective L&D mechanism under the UNFCCC.

Although the mentions of loss and damage in INDCs are encouraging in their demonstration that L&D is rising on the UNFCCC’s agenda and is being addressed by national policies, they also display the potential of L&D to divide developed and developing countries at the Paris COP and beyond. Consideration of the UNFCCC negotiating bloc affiliations of those nations whose INDCs mention “loss and damage” reveals that L&D is still an issue supported almost entirely by developing countries of the global south. Of the 23 countries that included “loss and damage” in their INDCs, five are members of the Alliance of Small Island States (AOSIS); seven are members of the Least Developed Countries group; five are members of the Africa Group (three are members of both the Africa Group and the LDCs); three are members of the Like Minded Group; two are members of the Independent Association of Latin America and the Caribbean (AILAC); and 5 are members of the Climate Vulnerable Forum. Of these 23 countries, 21 are members of the Group of 77 (all but the Republic of

Moldova and Serbia) and none are Annex I Parties. In addition, of the 57 countries that submitted INDCs mentioning “loss,” “damage,” or “loss and damage,” 52 are members of the G77 and none are Annex I Parties (Georgia, Kyrgyzstan, Mexico, Republic of Moldova, and Serbia mention loss and/or damage but are not G77 members or Annex I Parties). This pattern in which nations’ INDCs acknowledge the issue of loss and damage displays that there is broad support for recognition of loss and damage in the Paris agreement, but that it exists almost exclusively among developing countries.

*Of the 57 countries that mention loss and damage in their INDCs, 52 are members of the Group of 77*

## **Conclusion**

Some Parties have already begun to take national action on L&D, but require enhanced support in the form of climate finance and technology transfer. However, even if fully supported, countries’ individual actions cannot act as a substitute for an effective international mechanism on loss and damage. A small number of national initiatives does not indicate that action on L&D by the UNFCCC is becoming less urgent, but instead that loss and damage has grown severe enough that those nations lacking the capacity to respond adequately without international support must attempt to do so nonetheless.

The two loss and damage options in the COP 21 negotiating text – to either set up an L&D mechanism that will build on the work of the WIM or to remove the L&D section from the text entirely – clearly have the potential to create serious fault lines between developing and developed countries in Paris. However, the question of whether losses and damages from climate-related disasters should continue to be minimized under the UNFCCC should not be difficult to answer. For the sake of the 57 Parties that submitted INDCs acknowledging L&D, as well as of the rest of the developing world, loss and damage must be addressed in the Paris agreement.

Party	Calls for international action on L&D*	Undertaking national efforts to address L&D
Antigua and Barbuda	A L&D mechanism is "integral" to building national resilience to climate change	Insurance scheme and infrastructure improvements by 2030
Barbados	No	No
Cambodia	No	National "Strategic Plan" pledges participatory approach to reducing L&D
Colombia	More ambitious mitigation is important to reduce L&D	No
Costa Rica	No	National vulnerability monitoring program by 2020 for infrastructure
Côte d'Ivoire	No	Systematically evaluating erosion-related losses and damages
Dominica	Calls for finance to compensate L&D	No
Dominican Republic	No	No
Fiji	No	Plans to adopt a L&D assessment methodology by 2015
Gambia	No	Many activities proposed for disaster risk reduction, warning systems, etc.
Haiti	No	Plans to limit L&D through adaptation and supporting the insurance industry
India	"Urgent need" for finance to combat L&D	The Sendai Framework for Disaster Risk Reduction
Malawi	No	No
Myanmar	Requires support for reconstruction aiming to prevent future L&D	Since 2008, consistent investment in building capacity to recover from disasters sustainably
Philippines	Requires tech transfer/other support for L&D minimization	Minimization of L&D is central to national climate planning,
Republic of Moldova	"The cost of inaction would be devastating"	No
Serbia	No	No
Sierra Leone	No	Establish/strengthen national Disaster Management Dept., implement its action plan
Suriname	Calls for compensation for L&D, climate finance, technology transfer.	Considering whether to invest in adaptation or rebuild away from the coastline
Uruguay	No	By 2030, develop monitoring/reporting/risk mapping systems relating to L&D
Vanuatu	No	Existing national disaster risk reduction policy addresses L&D
Vietnam	Means to share/manage L&D costs need international consideration	No
Zambia	No	Will develop insurance market for climate-related risks to agriculture and infrastructure

**\* Note: all mentions of L&D express that "loss and damage" must be urgently addressed. "No" in this column indicates that a need for international action is not explicitly mentioned, not that the importance of addressing L&D is minimized or undermined in any way.**

## References

All INDCs were retrieved from the UNFCCC INDC portal:  
<[http://unfccc.int/focus/indc\\_portal/items/8766.php](http://unfccc.int/focus/indc_portal/items/8766.php)>

Unofficial English translations were used when available. INDCs without translations available in English or French were not included in this analysis.

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<sup>i</sup> Huq, Saleem. "Loss and damage: a guide for the confused." *Climate Home*. 20 October 2014.  
<<http://www.climatechangenews.com/2014/10/20/loss-and-damage-a-guide-for-the-confused/>>

<sup>ii</sup> Initial two-year workplan of the Executive Committee of the Warsaw International Mechanism for Loss and Damage, <[http://unfccc.int/adaptation/workstreams/loss\\_and\\_damage/items/8805.php](http://unfccc.int/adaptation/workstreams/loss_and_damage/items/8805.php)>

<sup>iii</sup> Warsaw International Mechanism for Loss and Damage,  
<[http://unfccc.int/adaptation/workstreams/loss\\_and\\_damage/items/8134.php](http://unfccc.int/adaptation/workstreams/loss_and_damage/items/8134.php)>

<sup>iv</sup> Richards, Julie-Anne. "Paris climate deal needs solidarity on loss and damage." *Climate Home*. Nov. 25 2015. <<http://www.climatechangenews.com/2015/11/25/paris-climate-deal-needs-solidarity-on-loss-and-damage/>>

<sup>v</sup> Draft agreement and draft decision of the ADP, version of 23 October 2015.  
<<http://unfccc.int/files/bodies/application/pdf/ws1and2@2330.pdf>>.

<sup>vi</sup> Richards, "Paris climate deal needs solidarity on loss and damage."

<sup>vii</sup> Ibid.

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