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# **The Birth of the Warsaw Loss & Damage Mechanism: Planting a Seed to Grow Ambition?**

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## **Abstract**

This article starts with an update on the UN climate negotiations with respect to loss & damage. It then explores two approaches to loss & damage that are substantially different from the current path of the negotiations. Both approaches seek to utilize the concern over loss & damage to improve motivation for an adequate and fair global effort to mitigation and adapt to climate change. The approaches differ mainly in the extent they can be integrated into the current UN climate regime. The first approach would create a loss & damage liability fund that seeks to ensure adequate resources to cover the projected cost of loss and damage of business as usual. The funds collected would then be made available for mitigation and adaptation efforts based on their ability to reduce the future cost of loss & damage. This approach is based on an idealized set of assumptions about what is achievable in the climate negotiations, and would require a completely new structure to the UN climate regime.

The second approach would limit the fund to loss and damage that is projected to be already locked in based on past and current emissions. It seeks to take into account the current state of the negotiations and the expressed or likely positions of key negotiating blocks, while seeking to preserve some opportunity to motivate Parties to contribute fairly to an adequate global effort. Either approach will be difficult to implement given the current state of the negotiations. However, given the global cost of inaction, if the current approach continues to yield results, the pressure to find alternative ways of moving forward will inevitably increase. The two approaches explored in this article are offered in the spirit of encouraging academics and negotiators to consider alternative ways forward if efforts under the current approach continue to be woefully inadequate.

## **Introduction**

Loss & damage has only recently been accepted as a formal agenda item in the UN climate negotiations. As a result of decisions taken in 2013 in Warsaw, a loss & damage mechanism is now being established, and is expected to be part of the post 2020 UN climate regime. While the mechanism is in the process of being set up, the ultimate purpose and scope of it is yet to be determined. After years of pressure from a growing

number of developing countries,<sup>1</sup> the question of what is to be done about the climate impacts that are not avoided through mitigation and adaptation efforts is thereby squarely before negotiators.<sup>2</sup> This does not necessarily mean that the issues of responsibility and liability for loss & damage will be resolved in these negotiations, but it means that Parties have agreed to start discussing what should be done about impacts that are not avoided through mitigation and adaptation.<sup>3</sup> This issue, of course, has grown in significance as it has become increasingly clear that global mitigation and that adaptation efforts will not prevent serious loss & damage in many parts of the world.<sup>4</sup>

## State of the Negotiations

Loss & damage has been formally part of the UN climate negotiations under the UN Convention on Climate Change (UNFCCC) since 2010.<sup>5</sup> At the Cancun session, the 16<sup>th</sup> Conference of the Parties (COP) agreed to establish a work program on loss & damage under the guidance of the Subsidiary Body for Implementation (SBI), and to invite

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<sup>1</sup> See, for example, Alliance of Small Island States (AOSIS), “Proposal to the AWG-LCA: Multi-Window Mechanism to Address Loss and Damage from Climate Change Impacts”, 10 December 2008, available on the Internet at:

<[http://unfccc.int/files/kyoto\\_protocol/application/pdf/aosisinsurance061208.pdf](http://unfccc.int/files/kyoto_protocol/application/pdf/aosisinsurance061208.pdf)> (last accessed on 31 January 2014).

<sup>2</sup> Decision 2/CP.19, Warsaw International Mechanism for Loss and Damage Associated with Climate Change Impacts included in Report of the Conference of the Parties on its Nineteenth Session, held in Warsaw from 11 to 23 November 2013, U.N. Doc. FCCC/CP/2013/10/Add.1, 31 January 2014 [Warsaw Mechanism].

<sup>3</sup> Of course, the current state of liability for unmitigated climate change domestically and in international law is receiving the attention of legal academics and practitioners world wide. See, for example, Richard Lord et al., eds, *Climate Change Liability: Transnational Law and Practice* (Cambridge: Cambridge University Press, 2012). See also International Law Commission, Draft Principles on the Allocation of Loss in the Case of Transboundary Harm Arising Out of Hazardous Activities in International Law Commission, Report of International Law Commission, Fifty-Eighth Session, U.N. Doc A/CN.4/566, 7 March 2006. See especially Principles 3 and 4. See also Craig Brown and Sara Seck, “Insurance Law Principles in an International Context: Compensating Losses Caused by Climate Change”, 50:3 *Alberta Law Review* (2013), 541.

<sup>4</sup> For an overview of loss & damage and its role in the climate regime, see Roda Verheyen, “Loss and Damage: Tackling Loss & Damage – A new role for the climate regime?”, November 2012, available on the Internet at: <<http://www.lossanddamage.net/download/6877.pdf>> (last accessed 31 January 2014). See also Christina Voigt, “State Responsibility for Climate Change Damages” 77 *Nordic Journal of International Law* (2008), 1.

<sup>5</sup> See Koko Warner and Sumaya Ahmed Zakildeen, “Loss and Damage Due to Climate Change: An Overview of the UNFCCC Negotiations”, 12 February 2012, available on the Internet at: <<http://www.eurocapacity.org/downloads/LossandDamage.pdf>> (last accessed 31 January 2014). For an overview of party positions on loss & damage, see Sonke Kreft, “Loss and Damage: Overview and Summary of Party Submissions on the Role of the Conventions”, November 2012, available in the Internet at: <<http://www.lossanddamage.net/download/6868.pdf>> (last accessed 31 January 2014). See also, Liz Bossley, “Dealing with Reality”, 5:4 *Journal of World Energy Law and Business* (2012), 345.

Parties to submit their views on what should be included in the work program. Since then, loss & damage has remained on the agendas of both the SBI and the COP. The SBI has focused its work on defining and implementing the work program. The focus of the work program to date has been on understanding loss & damage and on building capacity to deal with both extreme weather events and slow onset events. More specifically, the SBI identified three areas of focus for the work program:

- (a) Assessing the risk of loss and damage associated with the adverse effects of climate change and the current knowledge on the same;*
  - (b) A range of approaches to address loss and damage associated with the adverse effects of climate change, including impacts related to extreme weather events and slow onset events, taking into consideration experience at all levels;*
  - (c) The role of the Convention in enhancing the implementation of approaches to address loss and damage associated with the adverse effects of climate change.*
- (FCCC/SBI/2011/7, at Par 109)*

These themes were formally endorsed at COP 17 in Durban.<sup>6</sup> In addition, the COP directed the SBI and the UNFCCC secretariat to continue their work, including through consultations with Parties, the convening of expert meetings, and the development of technical papers.<sup>7</sup> Since then, the COP has broadened its focus from supporting and overseeing the implementation of the work program to also identifying the need for new institutional arrangements for loss & damage. In doing so, COP 18 in Doha established loss & damage as a negotiating issue for the ongoing negotiations toward a new climate change regime under the UNFCCC.<sup>8</sup> At COP 19 in Warsaw, Poland, Parties agreed to

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<sup>6</sup> Decision 7/CP.17, Work Programme on Loss and Damage included in Report of the Conference of the Parties on its Seventeenth Session, held in Durban from 28 November to 11 December 2011, U.N. Doc. FCCC/CP/2011/9/Add.2, 15 March 2012, at 5-7.

<sup>7</sup> See UNFCCC, “Approaches to address loss and damage associated with climate change impacts in developing countries that are particularly vulnerable to the adverse effects of climate change to enhance adaptive capacity (Draft)”, 1 December 2012, available on the Internet at: <<http://unfccc.int/resource/docs/2012/sbi/eng/144.pdf>> (last accessed on 31 January 2014); UNFCCC, “Approaches to address loss and damage associated with climate change impacts in developing countries that are particularly vulnerable to the adverse effects of climate change”, 2013, available on the Internet at: <[http://unfccc.int/adaptation/workstreams/loss\\_and\\_damage/items/6056.php](http://unfccc.int/adaptation/workstreams/loss_and_damage/items/6056.php)> (last accessed on 31 January 2014); UNFCCC, “Revised Proposal: Approaches to address loss and damage associated with climate change impacts in developing countries that are particularly vulnerable to the adverse effects of climate change to enhance adaptive capacity”, 8 December 2012, available on the Internet at: <<http://unfccc.int/resource/docs/2012/cop18/eng/104r01.pdf>> (last accessed on 31 January 2014), and UNFCCC, “Information note: UNFCCC Expert Meeting to Consider Future Needs, Including Capacity Needs Associated with Possible Approaches to Address Slow Onset Events”, 12-14 September 2013, available on the Internet at: <[http://unfccc.int/files/adaptation/cancun\\_adaptation\\_framework/loss\\_and\\_damage/application/pdf/information\\_note\\_12\\_aug.pdf](http://unfccc.int/files/adaptation/cancun_adaptation_framework/loss_and_damage/application/pdf/information_note_12_aug.pdf)> (last accessed on 31 January 2014).

<sup>8</sup> See Action taken by the Conference of the Parties at its eighteenth session, U.N. Doc. FCCC/CP/2012/8/Add.1, 28 February 2013, at 21 – 24. For an assessment of the emerging loss and damage mechanism under the UN regime, see Ilona Millar, Catherine Gascoigne, and

establish the “Warsaw International Mechanism on Loss and Damage”. The mechanism is to be initially set up under the Cancun Adaptation Framework, but the mandate, structure and effectiveness, including this institutional arrangement, is subject to review by 2016.<sup>9</sup>

The Warsaw decision established an executive committee of the mechanism, to be accountable to the COP. The executive committee is to report annually to the COP through the subsidiary bodies. It is expected to enhance action and support on loss & damage, including finance, technology and capacity-building. The short-term aims are to facilitate support of actions to address loss & damage, improve coordination of the relevant work under existing Convention bodies, convene meetings of relevant experts and stakeholders, promote the development and dissemination of information, provide technical guidance and support, and make recommendations on how to enhance engagement, actions and coherence under and outside the Convention.<sup>10</sup>

The bottom line appears to be that the door is now open on loss & damage, but that the discussions are still some distance from taking a serious look at the issue of liability for unmitigated climate change.<sup>11</sup> There are, of course, good reasons for this reluctance. The issue of liability for unmitigated climate change is complex and controversial. Among the complexities are the state of international law with respect to state responsibility and liability for transboundary harm, the scientific foundation, difficulties in establishing causation, a complex relationship between state and private actors, and difficult questions about the standard against which the actions of potentially liable actors would be measured.<sup>12</sup>

At the same time, there is a growing understanding that the global cost of unmitigated loss & damage will be much higher than the cost of readily available mitigation and

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Elizabeth Caldwell, “Making good the loss: An Assessment of the Loss and Damage Mechanism under the UNFCCC Process”, in M. Gerrard et al (eds), *Threatened Island Nations: An Assessment of the Loss and Damage Mechanism under the UNFCCC Process* (Cambridge: Cambridge University Press, 2013).

<sup>9</sup> Warsaw Mechanism, *supra*, note 2 at 6.

<sup>10</sup> Warsaw Mechanism, *supra*, note 2 at 7-8.

<sup>11</sup> It is, of course, not surprising that there is reluctance to engage with the issue of liability. For an overview of liability regimes in an environmental context, see Jutta Brunnée, “Of Sense and Sensibility: Reflections On International Liability Regimes As Tools For Environmental Protection” 53: 2 *International and Comparative Law Quarterly* (2004), 351. See also Allan Ingelson, Anne Kleffner, and Norma Nielson, “Long-term Liability for Carbon Capture and Storage in Depleted North American Oil and Gas Reservoirs – A Comparative Analysis” 31 *Energy Law Journal* (2010), 431.

<sup>12</sup> See A.E. Boyle, “Globalising Environmental Liability: The Interplay of National and International Law”, 17:1 *Journal of Environmental Law* (2005), 3; See also Michael G. Faure and Andre Nollkaemper, “International Liability as an Instrument to Prevent and Compensate for Climate Change”, 26A *Stanford Environmental Law Journal* (2007), 123.

adaptation measures that are far from being fully utilized.<sup>13</sup> There is likely a range of reasons why States are not putting in place the necessary laws and policies to implement these cost effective mitigation and adaptation measures. It would be reasonable to conclude that ambiguities around liability for loss and damage is among these factors.<sup>14</sup> In other words, it is at least conceivable that Parties are refusing to support mitigation action even though it is cheaper, because they are being asked to bear the cost of mitigation, but it is less certain that they will be required to contribute significantly or at all to the cost of unmitigated loss & damage.

### **Liability for Loss & Damage and Ambition**

In “Framing Future Commitments” a report released by the Oxford Institute for Energy Studies at the climate change negotiations in Bonn, Germany in 2003, Benito Mueller and others sought to identify the key challenges facing the climate change negotiations at the time and to propose strategies for overcoming them.<sup>15</sup> The focus was on what Mueller called the twin taboos of the climate change negotiations, the reluctance by developed States to discuss liability, and the resistance by developing States to discuss their role in the overall effort to mitigate climate change.

Mueller relates these taboos to key concerns of the two sides. For developing States, the key concern is with respect to liability for the cost of adaptation and unavoided loss & damage. For developed States it is that mitigation needs to take place globally for climate change to be slowed effectively. Taking this assessment of the global political situation at the time as his point of departure, Mueller advocates for a step-by-step effort to break both taboos, with the ultimate goal of openly negotiating both, mitigation efforts in developing countries and liability for unmitigated impacts.

What is particularly interesting about this report 10 years later is that the taboo of mitigation obligations in developing countries clearly has been lifted since COP 15 in Copenhagen. The taboo of liability for unmitigated impacts is showing only some timid signs of being lifted. Progress has been much slower. The current loss & damage negotiations have the potential to remedy this asymmetry and in the process provide the much needed motivation for all Parties to take mitigation and adaptation efforts more seriously, and to commit to efforts in line with the scale of the challenge ahead.

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<sup>13</sup> Nicholas Stern, *The Economics of Climate Change: The Stern Review* (London: HM Treasury, 2006). See also William Nordhaus and Joseph Boyer, *Warming the World: Economic Models of Global Warming* (Cambridge: The MIT Press, 2003).

<sup>14</sup> For a discussion of the expectation that parties to the climate negotiations act rationally, see Elisabeth Gsottbauer and Jeroen C. J. M. van den Bergh, “Bounded rationality and social interaction in negotiating a climate agreement” 13 *International Environmental Agreements: Politics, Law and Economics* (2013), 225.

<sup>15</sup> See: Benito Mueller et al, *Framing Future Commitments; A Pilot Study on the Evolution of the UNFCCC Greenhouse Gas Mitigation Regime*, (Oxford: Oxford Institute for Energy Studies, 2003) EV32.

Currently, based on the Stern report and the IPCC among others, it seems clear that globally, the cheapest and most sensible response to climate change would be to maximize mitigation efforts, as they are considerably cheaper and lower risk than unmitigated climate change.<sup>16</sup> Individual Parties, however, generally do not appear to have factored liability for impacts into cost benefit assessments of mitigation efforts, particularly liability for impacts outside their own jurisdiction.

If Parties are in fact considering the cost of mitigation in developing their climate policy without also considering the cost of loss & damage from unmitigated climate change, this creates a significant barrier to adequate mitigation efforts. This barrier to effective mitigation is, of course, compounded by the fact that the effect of GHG emissions from any one Party spreads globally, thereby distributing the cost of loss & damage.

In the end, if the ultimate liability for loss & damage can be resolved, this can create an incentive to undertake cost effective mitigation and now. It could essentially serve to bring “no regrets” actions at the individual Party level in line with “no regrets” actions at a global level, or to create an incentive for individual States to take mitigation action that is in the long term best interest of the global community.<sup>17</sup>

The current UN Climate Regime has sought to create this individual incentive in a different way. The assumption underlying the current climate regime is that the way to motivate individual States to mitigate is to link mitigation of individual countries to a

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<sup>16</sup> Stern, *The Stern Review*, supra, note 13. See also ICF International, “Improving the Assessment and Valuation of Climate Change Impacts for Policy and Regulatory Analysis”, June 2011, available on the Internet at: <[http://yosemite.epa.gov/ee/epa/erm.nsf/vwAN/EE-0566-51.pdf/\\$file/EE-0566-51.pdf](http://yosemite.epa.gov/ee/epa/erm.nsf/vwAN/EE-0566-51.pdf/$file/EE-0566-51.pdf)> (last accessed 31 January 2014); Environmental Protection Agency, “The Social Cost of Carbon: Overview”, July 2013, available on the Internet at: <<http://www.epa.gov/climatechange/Downloads/EPAactivities/scc-fact-sheet.pdf>> (last accessed 31 January 2014); and Interagency Working Group on Social Cost of Carbon, United States Government, “Technical Support Document: Social Cost of Carbon for Regulatory Impact Analysis- Under Executive Order 12866”, February 2010, available on the Internet at: <<http://www.epa.gov/otaq/climate/regulations/scc-tsd.pdf>> (last accessed 31 January 2014); Potsdam Institute for Climate Impact Research and Climate Analytics, “Turn Down the Heat: Why a 4°C Warmer World Must be Avoided”, November 2012, available on the Internet at: <[http://climatechange.worldbank.org/sites/default/files/Turn\\_Down\\_the\\_heat\\_Why\\_a\\_4\\_degree\\_centrigrade\\_warmer\\_world\\_must\\_be\\_avoided.pdf](http://climatechange.worldbank.org/sites/default/files/Turn_Down_the_heat_Why_a_4_degree_centrigrade_warmer_world_must_be_avoided.pdf)> (last accessed on 31 January 2014). See also Hans Joachim Schellnhuber et al, “Turn Down the Heat: Climate Extremes, Regional Impacts, and the Case for Resilience”, June 2013, available on the Internet at: <[http://www-wds.worldbank.org/external/default/WDSPContentServer/WDSP/IB/2013/06/14/000445729\\_20130614145941/Rendered/PDF/784240WP0Full00D0CONF0to0June19090L.pdf](http://www-wds.worldbank.org/external/default/WDSPContentServer/WDSP/IB/2013/06/14/000445729_20130614145941/Rendered/PDF/784240WP0Full00D0CONF0to0June19090L.pdf)> (last accessed 31 January 2014). A number of Parties expressed interest in oral submissions at the June 2013 session of the ADP in Bonn, Germany for the UNFCCC secretariat to develop a technical paper on the cost of adaptation for the various temperature scenarios. The work was not initiated due to opposition from other Parties, but a similar study could be initiated for loss & damage as a basis for determining the order of magnitude of the cost of unmitigated climate change based on various temperature scenarios.

<sup>17</sup> “No regrets” in this context means action that a Party would be motivated to take on its own, without the need for any external motivation, such as through a UN climate treaty.

coordinated global mitigation effort. In other words, the current approach is based on the assumption that individual Parties will accept a fair share of the mitigation obligation as long as they know other Parties will do their share.<sup>18</sup> After two decades of negotiations, this approach has yet to yield an agreement on a global mitigation effort in line with the state of the science on climate change.<sup>19</sup>

In short, liability for unmitigated climate change offers potential for much needed motivation for adequate mitigation (and conceivably also adaptation) efforts. If a Party's ultimate liability for unmitigated climate change were clear, this could provide motivation for that Party to maximize its own mitigation efforts. If a liability regime were to permit a Party to reduce its liability by assisting a developing country to reduce its emissions, such a regime could also create the necessary incentives for finance, technology transfer, and capacity building in developing countries. Adaptation help for the most vulnerable countries could similarly be incentivised through credit against liability for loss & damage.

The remainder of this article explores two possible approaches to loss & damage, both seeking to improve motivation for an adequate and fair global response to climate change. The first approach would create a loss & damage liability fund that seeks to ensure adequate resources to cover the projected cost of loss and damage of business as usual. The funds collected would then be made available for mitigation and adaptation efforts based on their ability to reduce the future cost of loss & damage. This approach is based on an idealized set of assumptions about what is achievable in the climate negotiations.

The second approach would limit the fund to loss and damage that is projected to be already locked in based on past and current emissions. It seeks to take into account, to the extent possible, the current state of the negotiations and the expressed or likely positions of key negotiating blocks, while seeking to preserve some opportunity to motivate Parties to contribute fairly to an adequate global effort. Either approach will be difficult to implement given the current state of the negotiations. However, given the global cost of inaction, if the current approach continues to yield results, the pressure to find alternative ways of moving forward will inevitably increase. These two approaches are offered in the spirit of encouraging academics and negotiators to consider alternative ways forward if efforts under the current approach continue to be woefully inadequate.

### **Approach 1: Starting Over: A New Regime Designed Around Loss & Damage?**

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<sup>18</sup> A key element of such an approach would be a strong compliance regime to ensure all parties do their share. The work done under the Kyoto Protocol to develop a strong compliance system has recently fallen out of favour in the climate regime. See Brunnée, Doelle and Rajamani, *Promoting Compliance in an Evolving Climate Change Regime*, (Cambridge: Cambridge University Press, 2012).

<sup>19</sup> See Mienhard Doelle, "The Legacy of the Climate Talks in Copenhagen: Hopenhagen or Brokenhagen?" 4 *Carbon & Climate Law Review* (2010), 86.



The approach explored here considers what role a loss & damage mechanism generally and a resolution of liability for loss & damage specifically could play in the design of a global climate regime, assuming Parties were willing to start over. The approach considered here is based on two related assumptions. First, it is assumed that there is considerable potential for additional mitigation and adaptation that would be cheaper than paying for the unavoided loss & damage.<sup>20</sup> Furthermore, it is assumed that clarity on the allocation of liability would in fact contribute to solving the current lack of ambition, that parties would be more willing to pay for mitigation and adaptation now, if they knew that it would reduce their own liability for loss and damage in the future.

Based on these assumptions, the approach explored here is to design the climate regime around the concept and cost of loss & damage, and more specifically to use the a reasonable order of magnitude estimate of the predicted future liability for loss & damage as the basis for determining the appropriate level of ambition for mitigation and adaptation, including finance, technology, and capacity building. This could be achieved through the establishment of a loss & damage mechanism that would clearly establish each Party's responsibility for unmitigated impacts. Through the mechanism on loss & damage, Parties could then be motivated to take action through credit for appropriate mitigation and adaptation actions toward this ultimate liability for unmitigated impacts, on the basis that these efforts reduced the global cost associated with loss & damage.<sup>21</sup>

If Parties can agree on when and how actions in the areas of mitigation, adaptation, finance, technology transfer, and capacity building will reduce a Party's ultimate liability for loss & damage, all such actions could thereby be motivated through a loss & damage mechanism. While these negotiations are likely to be challenging, the collective incentive to reduce liability for loss & damage would serve as motivation to focus on effective measures.<sup>22</sup> Approved actions could reduce liability in two basic ways. Effective efforts in all these areas would, of course, reduce the overall liability (in essence by reducing the global cost of future loss & damage through mitigation and adaptation). For adaptation, the correlation may be sufficient to motivate parties with sufficient capacity to implement their own adaptation measures. For mitigation, this motivation, based on the experience to date, is clearly insufficient.

In order to motivate individual Parties to take effective action on mitigation, approved actions by a given Party would have to more directly reduce a Party's share of the overall liability (either by giving credit for appropriate actions, or through the allocation formula for liability). In other words, given that the reduction in overall liability is subject to the tragedy of the commons in a way that is similar to the current lack of motivation to

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<sup>20</sup> Factoring in, of course, the delay involved in the liability for loss and damage compared to the cost of avoiding this liability through mitigation and adaptation.

<sup>21</sup> Credit could be given direct mitigation action, but potentially also for finance, access to technology, capacity building, and other support for mitigation and adaptation actions in other countries.

<sup>22</sup> Ensuring that approved action are suitable from an integrated perspective, and don't create undue sustainability challenges, will be more difficult to safeguard.

mitigate, the motivation to take action would have to be linked to reduction in individual liability in order to be effective.<sup>23</sup>

It is this basic approach of liability and credit centered on the liability for loss & damage that is at the heart of this proposal. Liability for loss & damage would replace the current approach of Party-by-Party emission reduction targets as the primary driver for adequate global and equitable individual efforts on mitigation, adaptation, finance, technology transfer, and capacity building.

In order to ensure an equitable distribution of efforts, liability for loss & damage would have to be allocated based on agreed upon principles of equity resulting in an allocation formula. From a practical point of view, it is important to note that the more a Party's actual emissions are built into the allocation formula, the easier it would be to motivate domestic mitigation efforts directly through liability for loss & damage, rather than through the granting of credits. The resulting motivation would essentially be that a Party could reduce its share of the overall liability for climate change by reducing its own emissions.

Some or all of the share of liability for business as usual loss & damage, however allocated, would be turned into annual contributions to a loss & damage fund based on the estimated financial need for future loss & damage. Approved mitigation and adaptation actions could then be financed through the loss & damage fund, on the basis and to the extent that the efforts actually reduce the long-term liability for loss & damage compared to business as usual. Alternatively, such efforts could be supported directly by Parties, and credit given toward the annual contribution to the liability fund in a manner similar to the current CDM mechanism or the evolving Nationally Appropriate Mitigation Actions (NAMA) mechanism.<sup>24</sup>

One way to make this approach more acceptable to parties who continue to resist serious engagement on the issue of liability might be to explicitly structure the fund so that contributions are made on a "without prejudice" basis, without any acknowledgement of legal responsibility or liability for loss & damage. Of course, care would have to be taken to ensure such an approach does not undermine the incentive to mitigate that is the

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<sup>23</sup> For a discussion of the what motivation may be needed to encourage adequate state action on climate change, see Gsottbauer and van den Bergh, "Bounded rationality", supra, note 14.

<sup>24</sup> With respect to the CDM, see, for example, Lambert Schneider, "A Clean Development Mechanism with global atmospheric benefits for a post-2012 regime" 9:2 *International Environmental Agreements* (2009), 95; and Patricia Nelson, "An African Dimension to the Clean Development Mechanism: Finding a Path to Sustainable Development in the Energy Sector" 32:4 *Denver Journal of International Law and Policy* (2004), 615. With respect to NAMA's, see Liana Bratasida, "What is 'nationally appropriate mitigation action'?", May 2008, available on the Internet at: <<http://www.oecd.org/environment/cc/40633672.pdf>> (last accessed on 31 January 2014), and Centre for Clean Air policy, "Nationally Appropriate Mitigation Actions (NAMAs) and the Clean Development Mechanism (CDM): An Overview", May 2011, available on the Internet at: <[http://ccap.org/assets/NATIONALLY-APPROPRIATE-MITIGATION-ACTIONS-NAMAS-AND-THE-CLEAN-DEVELOPMENT-MECHANISM-CDM-AnOverview\\_CCAP-May-2011.pdf](http://ccap.org/assets/NATIONALLY-APPROPRIATE-MITIGATION-ACTIONS-NAMAS-AND-THE-CLEAN-DEVELOPMENT-MECHANISM-CDM-AnOverview_CCAP-May-2011.pdf)> (last accessed on 31 January 2014).

primary reason for proposing this approach in the first place.

If the allocation of liability is sufficiently linked to a Party's own emissions in a manner that is considered equitable, domestic mitigation efforts would not have to be credited, as the control of cumulative domestic emissions would already be a sufficient motivator to reduce domestic emissions.<sup>25</sup> If the link to a Party's own emissions in the allocation is insufficient in the allocation formula, domestic mitigation efforts would still have to be either funded through the loss & damage fund or, more likely, credited against the liability allocation.

Key initial steps in the implementation of this approach would be to agree on a reasonable initial estimate of the global cost of loss & damage, and to allocate initial shares of liability on an equitable basis. The ability to estimate the cost of loss & damage of unmitigated climate change may still be fairly limited today, but as long as the initial estimate is in the right order of magnitude and higher than the cost of effective mitigation and adaptation, a conclusion that has already been reached by Stern and others, sufficient motivation for mitigation and adaptation would be generated.<sup>26</sup>

It is the agreement on allocation of the liability that would be most critical and difficult at the outset. With respect to the total cost of loss & damage, it is not necessary to get the numbers right from the start, as they can and need to be adjusted over time. It would be sufficient for Parties to agree on an appropriate order of magnitude of the cost of loss & damage from unmitigated climate change based on business as usual projections for future loss & damage associated with climate change and a reasonable estimate of its monetary value. The loss & damage liability estimates under such an approach could be reduced over time as a result of cumulative efforts to mitigate and adapt, and they could be refined as the global community gains experience with the actual cost of loss & damage resulting from unmitigated climate change. These periodic refinements would ensure that the liability allocated on an annual basis is in line with what is needed to cover loss & damage over the long term.

Another challenge would be the selection of mitigation and adaptation actions that would be eligible for funding or credit under a loss & damage liability mechanism. One approach would be to collect the annual contributions for loss & damage liability and then establish a funding mechanism to decide what mitigation, adaptation, technology transfer, or capacity building efforts should be supported. Under this approach, it would be important to establish a credible and effective institution and to agree on clear rules to

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<sup>25</sup> For a discussion of allocation from a justice perspective, see Koko Warner, et al., "Evidence from the Frontlines of Climate Change: Loss and Damage to Communities Despite Coping and Adaptation", November 2012, available on the Internet at: <<http://www.loss-and-damage.net/download/6815.pdf>> (last accessed on 31 January 2014).

<sup>26</sup> Stern, *The Stern Review*, supra, note 13. See also Munich Climate Insurance Initiative, "Brief history of Loss & Damage in UNFCCC discussions", 2013, available on the Internet at: <[http://www.climate-insurance.org/front\\_content.php?idcat=870](http://www.climate-insurance.org/front_content.php?idcat=870)> (last accessed on 31 January 2014). As discussed below, an alternative approach would be to structure the UN climate regime to more directly create liability for private actors.

ensure the funds are used effectively for mitigation and adaptation actions that will actually reduce the long-term liability for climate loss & damage. The debates over the establishment of various funding mechanisms under the UN climate regime serve to illustrate the challenges associated with this.<sup>27</sup>

The alternative, and likely more acceptable approach would be to encourage Parties to earn credits to avoid having to make financial contributions, and to only manage the residual contributions as a true loss & damage fund. Under this approach, the key issue will be the eligibility of initiatives, a debate similar to the one that took place with respect to the CDM mechanism in the lead up to the entry into force of the Kyoto Protocol, and that is currently taking place with respect to NAMA's. An important consideration would be whether funding or credits are allocated based on the effort made, or whether it would be based on the results achieved in terms of reducing the long term loss & damage liability.<sup>28</sup>

One option would be to grant credit only for transformative mitigation, such as the phase-out of fossil fuel consumption or production, a shift from private to public and active transportation, a shift away from consumption based economies, or a shift to economies based on closed loop systems of production that are fully integrated with natural systems. Such a focused approach to approving appropriate actions would reduce the risk of funding efforts that do not contribute to long-term mitigation or adaptation, do not contribute to sustainability or otherwise carry with them unacceptable collateral impacts, risks, or uncertainties. Such an approach works best if Parties with significant emissions are already motivated to mitigate domestically on their own through the formula that allocates the share of liability for each Party.

An alternative to a funding mechanism limited to transformative efforts would be to credit or fund a broader range of mitigation or adaptation efforts, and seek to include appropriate safeguards to ensure funded efforts make an appropriate contribution to the goal of minimizing the liability for long-term loss & damage while making a net contribution to sustainability. Whether this broader approach is necessary or appropriate will depend in part on whether the allocation formula offers sufficient motivation for domestic action, or whether the allocation of credit or funding is needed to encourage Parties to implement a broad range of domestic measures to reduce emissions within their own jurisdictions. If domestic emission reductions sufficiently reduce a Party's share of liability through the allocation formula, the credit mechanism could focus on transformative efforts in developing countries and avoid the challenges facing the CDM of creating an administrative bottleneck in an effort to ensure that only good projects get

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<sup>27</sup> Mueller, *Framing Future Commitments*, supra, note 15.

<sup>28</sup> See Duan Maosheng, "Accounting for Project Based Mechanisms within the Nationally Appropriate Mitigation Actions of the Developing Countries - Taking China as an Example", 2011, available on the Internet at: <<http://www.oecd.org/env/cc/48304131.pdf>> (last accessed on 31 January 2014). For additional sources on the CDM and NAMAs, supra, note 24.

approved.<sup>29</sup>

Adaptation efforts would need to be considered separate from mitigation. Adaptation measures would be difficult to motivate through the allocation formula. This would leave the credit mechanism as the most obvious way to motivate adaptation efforts. It is important to note that for countries that have the capacity and responsibility to look after their own adaptation needs, the international regime may not have to create any additional motivation for action. A key element of any solution to adaptation, therefore, would be to find an effective formula to separate those who would be responsible for their own adaptation efforts from those who would be entitled to some level of support. A focus on transformative adaptation measures that are likely to reduce long-term vulnerability would seem advisable, on the basis that such mitigation efforts would reduce the need for loss & damage funding in the future.

Funding could be made available to assist with the development and fair and rapid dissemination of transformative mitigation and adaptation technologies, such as key renewable energies, efficiency technologies, active and public transportation technologies, and passive building technologies.

It would be important to agree up front on the allocation of any funds in the liability fund that are not needed as a result of cost effective mitigation and adaptation. Experience with other large scale environmental challenges, such as air pollution contributing to acid rain and ozone layer depletion has shown that once serious efforts are made to address the problem, the cost of mitigation can be much lower than originally anticipated.<sup>30</sup> It is therefore conceivable that funds collected through a liability fund would exceed those needed to deal with the ultimate liability for loss & damage of unmitigated impacts.

It is important to consider this issue, given the starting assumption that mitigation is generally the least cost option for dealing with climate change, and that mitigation and adaptation collectively tend to be cheaper than unmitigated loss & damage. Given that the understanding of the costs of mitigation, adaptation, and loss & damage will evolve and improve gradually over time, and some level of effort in all these areas will be needed for a long time to come, there should be every opportunity to make reasonable adjustments over time to address the possibility of over-contribution at any given point.

It should be noted that while loss & damage has the potential to create the necessary motivation to ensure that global mitigation and adaptation efforts are adequate, many of

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<sup>29</sup> Some parties had proposed a “positive list” of technologies that would be eligible for CDM accreditation as a way to avoid this problem. See Doelle, “The Legacy of the Climate Talks in Copenhagen”, *supra*, note 19.

<sup>30</sup> See, for example, Gabriel Chan et al., “The SO<sub>2</sub> Allowance-Trading System and the Clean Air Act Amendment of 1990: Reflections on 20 Years of Policy Innovation”, 65:2 *National Tax Journal* (June 2012), 419. See also United States Environmental Protection Agency, “Cap and Trade: Acid Rain Program Results”, 2012, available on the Internet at: <<http://www.epa.gov/capandtrade/documents/ctresults.pdf>> (last accessed on 31 January 2014).

the other challenges, such as the equitable distribution of the burdens and benefits of action, and institutional challenges, remain. The concept of liability for loss & damage should be considered as a potential way to address the ambition gap, and as a way to ensure the global community prepares for the loss & damage that can no longer be avoided. It is not as a silver bullet for the range of challenges facing the climate regime.

In spite of its promise in motivating the global community to do what clearly appears to be in our collective best interest, to maximize our individual and collective efforts on mitigation and adaptation, the prospects for this kind of an approach to the emerging climate regime are slim at best. In part, this is because 20 years have been invested in a regime that is based on Party-by-Party mitigation targets and financial commitments. More importantly, the liability taboo has not been sufficiently broken for liability to loss & damage to play such a central role in the climate regime. Having said this, if the regime fails to deliver an adequate response by 2015, it is more likely that an opportunity to consider fundamental changes to the regime will arise.

In the following section, a somewhat more modest approach to loss and damage is considered. It seeks to strike a balance between what may be achievable under the current circumstances, and what is needed to ensure the emerging loss and damage mechanism makes a substantial contribution to helping to overcome the ambition gap.

## **Approach 2: A More Modest Proposal: Loss & Damage within the Emerging Regime**

The loss & damage mechanism established in Warsaw in 2013 will, at least initially, be housed under the Cancun Adaptation Framework. Its focus, for now, is not on liability or compensation, but rather on institutional development, information gathering and capacity building. All this suggests a mechanism that will do little in the short term to help address the ambition gap, and to re-assure developing countries that the help needed to deal with loss & damage will be available to them in the future. Assuming that the more ambitious approach sketched out above is not a realistic option in the current negotiations, this section offers a more modest approach to loss & damage that still has the potential to assist in motivating Parties toward a collectively more adequate effort.

The more ambitious approach was based on the idea of assessing the liability for loss & damage based on business as usual emissions projections. The fundamental difference in the approach considered here, in light of the state of the negotiations and the long-standing reluctance of many developed Parties to fully engage on the issue of liability, is to limit the funding mechanism to loss & damage associated with climate change already locked in based on past and current emissions.<sup>31</sup> Of course, responsibility for past emissions has been controversial in the context of proposals to base the allocation of mitigation efforts on the principle of historical responsibility. The approach considered

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<sup>31</sup> The rationale for this would be that it is much more difficult to reject a proposal to discuss how to resolve responsibility for loss and damage that has already been caused by past and current emissions.

here would therefore still require a very difficult agreement on the equitable distribution of liability for loss & damage, but would be based on an assessment of the much more modest cost of loss & damage already locked in, rather than an assessment of loss & damage resulting from business as usual. The scale of the liability would thereby be much smaller, and would focus on loss & damage that has already become unavoidable.

A set of concepts that can help clarify the idea of locked-in loss & damage are the terms “avoided”, “unavoided”, and “unavoidable loss & damage”, introduced by Rhoda Verheyen in a recent report on loss & damage.<sup>32</sup> Avoided loss & damage in the report refers to the climate impacts resulting from business as usual mitigation efforts. Avoidable loss & damage refers to impact that can still be avoided through mitigation and adaptation. Unavoidable loss & damage are impacts that are irreversible through future efforts. Unavoidable loss & damage would be considered “locked in” for purposes of this proposal. Loss & damage avoidable through additional mitigation or adaptation efforts would not be considered locked in, and would therefore also not be funded through this mechanism.<sup>33</sup> The loss & damage fund proposed here would only consider liability for that is unavoidable through future mitigation or adaptation.

The basic concept is to establish responsibility to contribute to the cost of locked in loss & damage, potentially on a “without prejudice” basis, and set up a loss & damage fund to ensure adequate resources to address this locked in climate change as it materializes over time.<sup>34</sup> Such an approach would ensure adequate funding for loss & damage, and indirectly serve to encourage collectively adequate mitigation efforts, because the obligation to contribute in the future would go up as more and more climate change is locked in. It would not, however, individually motivate Parties to mitigate effectively, only to constructively participate in an effort to ensure an adequate collective mitigation effort.

A key, as with the first approach, will be to agree on an equitable allocation of expected contributions, in this case the contribution to loss & damage that is locked in at any given point in time. These financial contributions to the cost of loss & damage would need to be allocated based on agreed to principles of equity resulting in an allocation formula. Much work has been done on possible principles of equity, and such principles are currently the subject of intense discussions in the UN climate negotiations. Allocation based on historical emissions, current emissions and capacity to support emission reductions have all been proposed as equity principles for allocation of responsibility

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<sup>32</sup> Verheyen, “Tackling Loss & Damage”, supra, note 4, at 6. The concept of locked in loss and damage is similar to “unavoidable”, except with respect to future adaptation measures.

<sup>33</sup> Of course, under the more ambitious approach considered above, any mitigation that has the potential to reduce the risk of future loss and damage could be funded through the loss and damage fund, because the fund would be designed based on business as usual rather than locked-in loss and damage.

<sup>34</sup> The funding under this proposal would not be available to assist with mitigation or adaptation, as doing so would risk creating a loss and damage funding deficit. This is because the contributions to the fund are based on loss and damage locked in, not based on loss and damage based on business as usual.

under the UN climate regime. Views on the appropriate mix of equity principles still vary, but capacity and historical responsibility have featured centrally in the discussions for a long time.<sup>35</sup>

A way would have to be found to resolve the outstanding differences on the issue of equity, such as allocation based on some combination of current emissions, historical responsibility from a base year linked to adequate awareness of the problem (such as 1990, the year of the first IPCC report), and some mutually acceptable capacity measure (such as GDP or the HDI).

Similar to the first approach, the quantification of the total cost of locked in loss & damage would initially just need to be in the right order of magnitude, as contributions could be made annually, and the amount needed could be reviewed regularly both in light of emissions trajectories, and in light of better information on the cost of loss & damage resulting from the locked in climate change.<sup>36</sup>

An interesting issue to consider in the design of such a funding mechanism for loss & damage is whether the necessary funding contributions would necessarily have to be assigned to state actors, or whether they could be allocated to private actors or a combination of state and private actors.<sup>37</sup> It is conceivable, for example, that the regime might establish the responsibility for locked in loss & damage for appropriate sectors, such as fossil fuel exploration, transportation, electricity generation, and set up a mechanism by which key private actors in those sectors contribute to a loss & damage fund. Such an approach may be complex to implement, but would be worth some consideration as a potential complement or alternative to the exclusive payment of public funds. As pointed out by Boyle, state-based liability amounts to a subsidy of polluting industries. States can, of course, recover these payments from private actors responsible through appropriate domestic measures.<sup>38</sup>

The more modest approach proposed here still challenges developed countries to overcome the taboo on liability. As such, it will clearly still be a significant challenge to get incorporated into the emerging UN climate regime. Limiting the loss & damage fund to liability for locked in loss and damage should make the resistance to openly dealing with this liability more difficult to justify.

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<sup>35</sup> See, for example, M. Doelle, *From Hot Air to Action? Climate Change, Compliance and the Future of International Environmental Law* (Toronto: Carswell, 2005). For an assessment of options for a liability regime, see Philippe Cullet, "Liability and Redress for Human-Induced Global Warming: Towards an International Regime" 43(A) *Stanford Journal of International Law*, 2007, available on the Internet at: <<http://www.ielrc.org/content/a0701.pdf>>. See also Faure and Nollkaemper, "International Liability", supra, note 12.

<sup>36</sup> See Warner et al., "Evidence from the Frontlines of Climate Change", supra, note 25.

<sup>37</sup> Boyle, "Globalising Environmental Liability", supra, note 12. See also, Richard Heede, "Tracing anthropogenic carbon dioxide and methane emissions to fossil fuel and cement producers," 122 *Climatic Change*, (2014), 229 (showing that 90 large companies cause 2/3 of anthropogenic emissions).

<sup>38</sup> Boyle, "Globalising Environmental Liability", supra, note 12, at 8.



20 years of climate negotiations have demonstrated that adequate efforts under the current approach are not likely in the cards. A meaningful breakthrough, such as the approach proposed here, is clearly needed to break the long-standing impasse in the negotiations. There are a number of reasons to be hopeful that a breakthrough on loss & damage would create an opening for the climate regime.

An agreement on liability for locked in loss & damage would be an important sign of good faith from those that have contributed most to climate change to date to those most at risk. It would make it clear that those who have not caused climate change but will be hit hard by the effects will not be forgotten, but will be treated fairly. Furthermore, the agreement on how to allocate responsibility to contribute to the cost of loss and damage will send a critical signal to all Parties that they can no longer ignore the cost of loss & damage in their decisions about the costs, benefits, risks and uncertainties of action or inaction both individually, and in terms of supporting an effective global response to climate change.

## **Conclusion**

This article considers two possible approaches to the new loss & damage mechanism established in Warsaw to motivate a more adequate global effort on climate change. The first approach would involve a complete restructuring of the climate regime around the concept of liability for loss & damage, based on the assumption that it is in the collective interest of the global community to take steps to minimize the risk of future liability for loss & damage. The second approach seeks to create this motivation to bridge the ambition gap through a more modest proposal that is more in line with the current state of the negotiations and the emerging loss & damage mechanism, though it would still require Parties to overcome the current taboo with respect to liability for loss & damage.

Many of the other challenges in establishing a loss & damage mechanism remain unresolved in this article. The purpose was not to design a loss & damage mechanism, but to consider how such a mechanism could help deal with the inadequacy of the global ambition on mitigation and adaptation. Parties would still need to work out what constitutes loss & damage resulting from climate change (both for extreme weather events and for slow onset climate change), and when, who, and under what circumstances would be eligible for help with loss & damage. Issues such as who would have access to compensation for loss & damage would have to be resolved. Would it be limited to Parties, or be accessible to sub-national state actors, or to non-state actors? Parties would still need to work out how to ensure that mitigation, adaptation, technology development and dissemination, finance, and loss & damage efforts are fairly distributed.

The approaches explored in this piece are far from a silver bullet for the climate negotiations. It is difficult to see key developed nations accepting liability for loss & damage through a negotiated process, even though an agreement on liability now would likely serve even Nations with the highest risk of future liability. More importantly, a

regime designed around liability for loss & damage still needs to resolve many of the same issues that negotiators are struggling with in the current negotiations. What an allocation of liability for loss & damage would do, however, is to motivate effective and adequate global action on mitigation and adaptation, rather than continue the pattern of making future generations pay for the lack of ambition today.

The key difference between the approach considered here and a simple funding mechanism is the motivation to mitigate and adapt effectively. A loss & damage liability mechanism as explored here should, over time, resolve the debate over how much effort should be put into mitigation and adaptation, as it should clarify what levels of mitigation and adaptation are cost effective compared to the cost of loss & damage for unmitigated climate change.

Assuming the Stern Report was correct in its conclusion that mitigation is cheaper than paying for adaptation and loss & damage, and the reason for inadequate mitigation has been and continues to be that Parties do not factor liability for loss & damage into their decision-making on mitigation, a loss & damage liability mechanism has the potential to offer a cost effective path toward adequacy. The more the cost of inaction can be quantified over time, and the associated liability distributed fairly among Parties, the better chance the global community has of motivating individual Parties to avoid that cost by mitigating. Whether loss & damage will start to play this role in the post 2020 UN climate regime will, of course, be up to Parties. What does seem clear is that the global community as a whole would stand to benefit from such an approach.