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Loss, Damage and Responsibility after COP21: All Options Open for the Paris Agreement

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The issue of ‘loss and damage’ has proven to be a legally and politically challenging one within the international climate change regime. This article presents a brief history of the issue, and reviews related Paris outcomes, focusing on the issues of compensation and liability, governance, financial support, insurance and displacement. It concludes that despite paragraph 51 of Decision 1/CP.21 adopting the Paris Agreement, all options remain open for the development of a system under the climate regime that can address the underlying concerns raised by small island developing States and others in calling for a system of compensation and liability. In the context of the 1.5 °C temperature limit and increasing climate impacts, this article also highlights the need for the Warsaw International Mechanism to play an active role in quantifying the scale of loss and damage that is projected from human-induced climate change in different regions and in different national contexts, over different time frames and at different emission pathways, and in sharing developments in attribution science, to help in the design of approaches to address loss and damage that are suited to assisting the most vulnerable developing country parties and to underscore the need for urgent emission reductions.

INTRODUCTION

The issue of ‘loss and damage’ – how best to address the permanent and irreversible impacts of human-induced climate change on particularly vulnerable developing countries – has proven to be a legally and politically challenging one over the years. Recognition of this issue in the Paris Agreement1 was a key outcome for vulnerable developing countries. Nevertheless, not all of the Parties’ underlying concerns are resolved with the inclusion of Article 8 in this legally binding treaty. Open issues include the implications of paragraph 51 of Decision 1/CP.212 for the evolution of the climate change regime and for the work of the Warsaw International Mechanism (WIM); the relationship between loss and damage and adaptation; the source of financial and technical resources to address loss and damage; and the role of the WIM after the adoption of the Paris Agreement.

This article starts with a brief history of loss and damage under the United Nations Framework Convention on Climate Change (UNFCCC). It then sets out the central elements of the WIM’s functions, tasks and its ‘action areas’. Next, the article reviews Paris negotiating positions and outcomes on loss and damage, focusing on: contentious paragraph 51 addressing compensation and liability; the relationship of the UNFCCC Conference of the Parties (COP) and the COP serving as Meeting of the Parties to the Paris Agreement (CMA) in connection with the WIM after Paris; financial support to address loss and damage; tasks given to the WIM in connection with insurance and displacement; and the possible role of the WIM going forward. The article moves on to consider the significance of the Paris Agreement’s adoption of an enhanced 1.5 °C long-term temperature limit in the context of minimizing loss and damage, and discusses historical responsibility for emissions and temperature rise, developments in attribution science, and the implications of the Paris outcomes for progress on loss and damage going forward, now that the WIM is firmly placed within the climate regime to ‘address’ loss and damage on behalf of all parties to the Convention and the Paris Agreement.

We conclude that despite the adoption of paragraph 51, all options remain open for the development of a system under the climate regime that can address the underlying concerns raised by small island developing States (SIDS) and others in calling for a system of compensation and liability. In the near term, rather than emasculating the WIM, paragraph 51 may actually serve to liberate the WIM, allowing it to draw together information that can help policy makers in particularly vulnerable developing countries better understand the timing and scale of projected impacts and the loss and damage expected to result in different regions and national contexts, filling an important information gap in the regime. Over time, the door remains open to the development of a regulatory system within the regime that can provide the technical and financial support needed to address resulting

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2 UNFCCC, Decision 1/CP.21, Adoption of the Paris Agreement (UN Doc. FCCC/CP/2015/10/Add.1, 29 January 2016).
needs, including one that links anthropogenic emissions more directly to the provision of support, if that is a direction in which the parties are prepared to move.

**BRIEF HISTORY OF LOSS AND DAMAGE IN THE CLIMATE REGIME**

There is no precise definition of the concept of ‘loss and damage’ in the Convention or Paris Agreement, much in the same way that there is no definition of ‘adaptation’. However, it is well understood that this phrase relates to the desire of vulnerable countries, and especially SIDS, to secure formal recognition from the international community that there are adverse impacts of human-induced climate change that cannot be avoided by mitigation or adaptation, or that will not be avoided in the future by adaptation due to insufficient resources, and that must be addressed at the international level under the climate regime due to the equities involved.

Discussions on how best to address the permanent and irreversible impacts of climate change have been a feature of the climate regime since its very beginning. The phrase ‘loss and damage’, and its association with insurance and insurance-related tools and approaches, goes back to a proposal made by the Alliance of Small Island States (AOSIS) in 1991 when the UNFCCC was being negotiated. At that time, AOSIS, a newly formed group of small island nations, proposed the establishment of an international insurance pool as a ‘collective loss-sharing scheme’ to compensate the most vulnerable small island and low-lying coastal developing countries for loss and damage arising from sea level rise. Funding for this pool was to come from assessed contributions ‘according to a formula modelled on the 1963 Brussels Supplementary Convention on Third Party Liability in the field of Nuclear Energy’, with 50% based on parties’ relative contributions to emissions in the year prior to a ‘contribution year’, and 50% based on parties’ relative shares of global gross national product in the year prior to the contribution year. These accumulated resources would be used to cover a fixed period of insurance payouts. If funds were insufficient to cover claims, they would be paid out on an equitable basis.

AOSIS’s proposed Insurance Annex was not accepted and did not become part of the Convention. However, markers of this debate are found in the Convention’s reference to ‘insurance’ in Article 4.8, as a measure that may be necessary under the Convention ‘to meet the specific needs and concerns of developing country Parties arising from the adverse effects of climate change’, and in Article 4.4’s commitment by developed countries to ‘assist the developing countries that are particularly vulnerable to the adverse effects of climate change in meeting the costs of adaptation to those adverse effects’.

At the first UNFCCC COP in 1995, agreement was reached on initial guidance to the Convention’s Financial Mechanism, setting out a staged approach to adaptation funding as follows:

Stage I: Planning, which includes studies of possible impacts of climate change, to identify particularly vulnerable countries or regions and policy options for adaptation and appropriate capacity-building;

3 Article 1 of the United Nations Framework Convention on Climate Change (New York, 9 May 1992; in force 21 March 1994) (‘UNFCCC’) defines ‘adverse effects of climate change’ as ‘changes in the physical environment or biota resulting from climate change which have significant deleterious effects on the composition, resilience or productivity of natural and managed ecosystems or on the operation of socio-economic systems or on human health and welfare’. See also UNFCCC, Non-economic Losses in the Context of the Work Programme on Loss and Damage (UN Doc. FCCC/TP/2013/2, 9 October 2013), at paragraph 32 (‘[l]oss and damage describes the impact associated with the adverse effects of climate change, including those related to extreme events and slow onset events such as sea-level rise, increasing temperatures, ocean acidification, glacial retreat and related impacts, salinization, land and forest degradation, loss of biodiversity and desertification’).


7 UNFCCC, n. 3 above, Article 4.8.

8 Ibid., Article 4.4.

9 UNFCCC, Decision 11/CP.1, Initial Guidance on Policies, Programme Priorities and Eligibility Criteria to the Operating Entity or Entities of the Financial Mechanism (UN Doc. FCCC/CP/1995/7/Add.1, 16 June 1995), at paragraph 1(d)(ii). For more on this and financial obligations under the UNFCCC, see R. Verheyen, *Climate Change Damage in International Law* (Brill, 2005), at 130ff. and 160ff.
Stage II: Measures, including further capacity-building, which may be taken to prepare for adaptation, as envisaged by Article 4.1(e);

Stage III: Measures to facilitate adequate adaptation, including insurance, and other adaptation measures as envisaged by Article 4.1(b) and 4.4.

Stages II and III were envisaged for the medium and long term, for the particularly vulnerable countries or regions identified in Stage I. ‘Insurance’ is explicitly mentioned as a Stage III adaptation measure to facilitate ‘adequate’ adaptation, to be funded by the Convention’s financial mechanism. Decision 11/CP.1 explicitly links Stage III measures with funding support under Articles 4.3 and 4.4.

In 2001, by Decision 5/CP.7, the COP agreed to hold a set of workshops on the basis of Article 4.8, to support the implementation of insurance-related actions to address the needs of developing country parties arising from the adverse effects of climate change.10 These two workshops were held in 2003.11 The background paper for the event identified insurance-related strategies and tools used by other treaty processes to address impacts and related financial risk from transboundary pollution events, including risk layering, risk transfer, risk pooling and collective loss sharing elements under the nuclear, oil spill, hazardous substance transport and marine transport regimes.12 The workshop report noted, among other things, that a case could be made for burden sharing and international risk transfer via an international insurance pool, as originally proposed by AOSIS, especially in the least-developed countries (LDCs).13

In 2004, developing countries negotiated for follow-up activities to Decision 5/CP.7. They secured agreement to hold another series of regional workshops, and ‘[o]ne expert meeting for small island developing States, reflecting issues of priority identified by that group’ no later than November 2007.14 The SIDS Expert Workshop on Adaptation took place in two parts in February 2007, looking at adaptation, risk management, risk reduction and insurance, addressing a range of projected impacts of climate change in SIDS. Insurance-related tools were identified as a way to both minimize loss and damage and create systems that could provide resources for tailored solutions for SIDS to support rehabilitation.15

In August 2007, AOSIS made a written submission to the ‘Dialogue on long-term cooperative action to address climate change by enhancing implementation of the Convention’,16 a negotiating stream under the Convention held in parallel to discussions under the Ad Hoc Working Group on the Kyoto Protocol, on a second set of Kyoto Protocol commitments. AOSIS again called for an international insurance mechanism to help SIDS manage climate risk and build resilient economies. AOSIS noted that an Adaptation Fund constituted under the Convention could be used to establish an international insurance fund, which in turn could both support risk management and offer compensation for loss and damage not avoided by adaptation activities and funding under the Convention.17

In late 2007, loss and damage, risk sharing and risk transfer were given an increased profile at COP13. The Bali Action Plan, the central outcome of these negotiations, referenced these elements in the context of ‘enhanced action on adaptation’ that would be considered through the newly established Ad Hoc Working Group on Long-term Cooperative Action under the Convention (AWG-LCA) – the body expected to deliver a global agreement at COP15 in Copenhagen.18 The AWG-LCA at its first session agreed to organize a workshop at COP14 on ‘risk management and risk reduction strategies, including risk sharing and transfer mechanisms such as insurance’.19

10 UNFCCC, Decision 5/CP.7, Implementation of Article 4, Paragraphs 8 and 9, of the Convention (Decision 3/CP.3 and Article 2, Paragraph 3, and Article 3, Paragraph 14, of the Kyoto Protocol) (UN Doc. FCCC/CP/2001/13/Add.1, 21 January 2002), at paragraphs 9, 34–35 (deciding to consider at COP8 ‘the implementation of insurance-related actions to meet the specific needs and concerns of developing country Parties arising from the adverse effects of climate change, based on the outcome of the workshops referred to in paragraphs 34 and 35 below’). Many activities under the UNFCCC have addressed the concept of insurance within the climate regime. See generally O. Schwank et al., Insurance as an Adaptation Option under the UNFCCC (INFRAS, 2010).
12 See, e.g., J. Linnerooth-Bayer et al., n. 6 above.
14 UNFCCC, Decision 1/CP.10 (UN Doc. FCCC/CP/2004/10/Add.1, 19 April 2015), at paragraphs 8–9.
17 Ibid., at 4–5, 7, 9 and 11–12.
18 UNFCCC, Decision 1/CP.13, Bali Action Plan (UN Doc. FCCC/CP/2007/6/Add.1, 14 March 2008), at paragraphs 1(c)(i–iii) and 2.
19 UNFCCC, Report of the AWG-LCA on its first session (UN Doc. FCCC/AWGLCA/2008/3, 16 May 2008), at paragraph 26 and Annex I.
At COP14, in 2008, this in-session workshop was supported by three technical papers.\(^{20}\) AOSIS joined other parties in giving presentations,\(^{21}\) and also submitted a formal proposal for the establishment of a ‘Multi-Window Mechanism to address loss and damage’,\(^{22}\) consisting of three interdependent components:

(i) An Insurance Component to help SIDS and other particularly vulnerable developing countries manage financial risk from increasingly frequent and severe extreme weather events.

(ii) A Rehabilitation/Compensatory Component to address the progressive negative impacts of climate change, such as sea-level rise, increasing land and sea surface temperatures, and ocean acidification, which result in loss and damage.

(iii) A Risk Management Component to support and promote risk assessment and risk management tools and facilitate and inform the Insurance Component and Rehabilitation/Compensatory Component.

AOSIS proposed a Technical Facility and a Financial Facility to support all three components, with funding from assessed contributions, based on Parties' greenhouse gas emissions as a measure of responsibility and gross domestic product as a measure of capability, supplemented by funding from other sources. The ‘Rehabilitation/Compensatory Component’—to address loss and damage—could operate, AOSIS suggested, through fixed (negotiated) baselines and exceedances of parameters that might trigger payments.\(^{23}\) Several discussion papers were also circulated informally at COP14, including a World Wide Fund for Nature (WWF) discussion paper entitled ‘Beyond Adaptation’, which contained similar ideas and suggested a ‘Compensation Protocol’ to regulate loss and damage due to climate change on the international level.\(^{24}\) The AOSIS proposal and the WWF paper drew attention to the regulatory gap concerning loss and damage ‘beyond adaptation’, and set the term ‘compensation’ as an issue for discussion in the corridors.

In 2009, AOSIS included provisions to establish a mechanism for loss and damage in Article 3 of its proposed ‘Copenhagen Protocol to Enhance the Implementation of the United Nations Framework Convention on Climate Change’ on adaptation.\(^{25}\) This iteration of the mechanism would have addressed people displaced by climate change, loss and damage from the adverse effects of climate change, risks associated with extreme weather events and compensation and rehabilitation for loss and damage resulting from climate-related slow onset events, including sea-level rise, increasing temperatures and ocean acidification.\(^{26}\) Funding was proposed at that time through an ‘adaptation’ and ‘insurance’ windows of a new multilateral fund on climate change.

In 2010, in the wake of the failed Copenhagen COP, omnibus Decision 1/CP.16 aimed to keep the multilateral process alive by capturing the key concerns of all parties. Under the heading ‘Enhanced Action on Adaptation’, it recognized the need to ‘strengthen international cooperation and expertise in order to understand and reduce loss and damage associated with the adverse effects of climate change, including impacts related to extreme weather events and slow onset events’.\(^{27}\) In a footnote, slow onset events were defined to include sea-level rise, increasing temperatures, ocean acidification, glacial retreat and related impacts, salinization, land and forest degradation, loss of biodiversity and desertification.\(^{28}\) The parties launched a ‘work programme on loss and damage’ ‘to consider … approaches to address loss and damage associated with climate change impacts in developing countries that are particularly vulnerable to


\(^{21}\) See n. 20 above; and AOSIS, Risk Management and Risk Reduction Strategies, Including Risk Sharing and Risk Transfer Mechanisms such as Insurance (4 December 2008), found at: <https://unfccc.int/files/kyoto_protocol/application/pdf/aosisrisk.pdf>.


\(^{23}\) Ibid., at 15, 27, 30. As yet, there has been no detailed consideration at this level of specificity by UNFCCC parties.


\(^{26}\) Ibid.


\(^{28}\) Ibid., at paragraph 25, footnote 3.
adverse effects of climate change and in 2011, at COP17, agreed on the content of this work programme.

In late 2012, following a series of written submissions, expert meetings and late night negotiations, and certainly over the discomfort of developed country parties, COP18 in Doha agreed to establish ‘institutional arrangements . . . to address loss and damage associated with the impacts of climate change in developing countries that are particularly vulnerable to the adverse effects of climate change’. This enabled the adoption of the Doha package of decisions, which included outcomes under both the Convention and Kyoto Protocol. Emission reduction pledges and commitments at the time were recognized as inconsistent with the below 2 °C long-term temperature limitation goal adopted at COP16.

Finally, in Warsaw in 2013, some 20 years after AOSIS first sought a mechanism to address loss and damage in connection with the negotiation of the Convention, by Decision 2/CP.19 the Parties decided ‘to establish an international mechanism to address loss and damage associated with impacts of climate change, including extreme events and slow onset events, in developing countries that are particularly vulnerable to the adverse effects of climate change’. Parties agreed to conduct a review of the new WIM, ‘including its structure, mandate and effectiveness’, at COP22 in 2016.

For many, the adoption of the WIM signalled that there are now essentially three topical strands in the climate negotiations: mitigation, adaptation, and loss and damage associated with climate change.

THE WARSAW INTERNATIONAL MECHANISM

ESTABLISHMENT AND MANDATE

As Burkett has pointed out, the WIM consists of a ‘rather conservative, approach to developing a loss-and-damage infrastructure’. The WIM’s mandate is broad, but the operative paragraphs of Decision 2/CP.19 clearly reflect political compromise. Under Decision 2/CP.19, paragraph 5, the parties agree that the WIM ‘shall fulfil the role under the Convention of promoting the implementation of approaches to address loss and damage associated with the adverse effects of climate change, by undertaking, inter alia, the following functions’.

(a) Enhancing knowledge and understanding of comprehensive risk management approaches to address loss and damage associated with the adverse effects of climate change, including slow onset impacts . . .
(b) Strengthening dialogue, coordination, coherence and synergies among relevant stakeholders . . .
(c) Enhancing action and support, including finance, technology and capacity building to address loss and damage . . .

In exercising these functions, paragraph 7 provides that the WIM ‘will, inter alia’:

(a) Facilitate support of actions to address loss and damage;
(b) Improve coordination of the relevant work of existing bodies under the Convention;
(c) Convene meetings of relevant experts and stakeholders;
(d) Promote the development of, and compile, analyze, synthesize and review information;
(e) Provide technical guidance and support;
(f) Make recommendations, as appropriate, on how to enhance engagement, actions and coherence under and outside the Convention, including on how to mobilize resources and expertise at different levels.

An Executive Committee (ExCom) has been established as the WIM’s governance body. The ExCom functions under the guidance of, and is accountable to, the COP.
and is responsible for guiding the functions of the WIM referred to in Decision 2/CP.19, paragraph 5.\(^{38}\) The ExCom is requested to report annually to the COP through both the Subsidiary Body for Scientific and Technological Advice (SBSTA) and the Subsidiary Body for Implementation (SBI) and to make recommendations as appropriate.\(^{39}\) It is also empowered to establish ‘expert groups, subcommittees, panels, thematic advisory groups or task-focused ad hoc working groups’ to help it execute the work of the WIM, in an advisory role.\(^{40}\)

Decision 2/CP.19 was not mirrored by a decision on finance and did not open a new or additional funding stream for the WIM ExCom or the WIM’s activities, leaving it unclear how the work of the WIM will be funded and sustained over the longer term. While the WIM ExCom can establish expert groups and panels, thus far there has been no real influx of technical expertise, as had been hoped by developing countries who had sought to establish a ‘mechanism’ with technical advisory functions and financial functions. Because the WIM and its ExCom are entities established only by COP decision,\(^{41}\) they do not exist in an independent legal sense outside the climate regime, nor are they ‘legal entities’, such that they can enter into contracts, commission work and disburse funds.\(^{42}\)

As a result, the WIM is essentially a mechanism with powers ‘in progress’, and with functions to be elaborated over time: its three enumerated functions were agreed ‘inter alia’ in paragraph 5 and need not be understood as a closed set of functions; the WIM’s tasks under paragraph 7 are also ‘inter alia’; and the WIM’s ‘structure, mandate and effectiveness’ is slated for review at COP22 in 2016. In agreeing to this review in Warsaw, developing countries hoped that a broader mandate would be achieved, embedding necessary technical and financial functions.

**WIM WORK PLAN**

The WIM ExCom was tasked to develop an initial two-year work plan. A call for submission of views generated over 150 proposed activities from parties, intergovernmental organizations and nongovernmental organizations.\(^{43}\) The work plan eventually agreed at COP26\(^{44}\) has nine ‘action areas’ under which WIM activities sit. These action areas have lengthy, carefully worded titles, which the ExCom for short hand refers to as:

1. Particularly vulnerable developing countries, population, ecosystems
2. Comprehensive risk management approaches
3. Slow onset events
4. Non-economic losses
5. Resilience, recovery and rehabilitation
6. Migration, displacement and human mobility
7. Financial instruments and tools
8. Complement, draw upon the work of and involve other bodies
9. Development of a 5-year rolling work plan.\(^{45}\)

The longer, more precise, wording of some of these action areas provides important context:

3. Enhance data on and knowledge of the risks of slow onset events and their impacts, and identify ways forward on approaches to address slow onset events associated with the adverse effects of climate change . . .
4. Enhance data on and knowledge of non-economic losses associated with the adverse effects of climate change and identify ways forward for reducing the risk of and addressing non-economic losses . . .
5. Enhance the understanding of the capacity and coordination needs with regard to preparing for, responding to and building resilience against loss and damage associated with extreme and slow onset events, including through recovery and rehabilitation.
6. Enhance the understanding of and expertise on how the impacts of climate change are affecting patterns of migration, displacement and human mobility; and the application of such understanding and expertise.\(^{46}\)

The WIM’s initial work plan represents a first step, explicitly stressing of ‘identifying ways forward’ for most action areas. However, the WIM’s ‘action areas’ will only be as effective as the activities generated within

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\(^{38}\) UNFCCC, Decision 2/CP.20, Warsaw International Mechanism for Loss and Damage Associated with Climate Change Impacts (UN Doc. FCCC/CP/2014/10/Add.2, 2 February 2015), at paragraphs 3–4.

\(^{39}\) Decision 2/CP.19, n. 33 above, at paragraphs 2–3; Decision 2/CP.20, n. 38 above, at paragraph 4.

\(^{40}\) Decision 2/CP.20, n. 38 above, at paragraph 8.

\(^{41}\) The nature of COP decisions is a matter of ongoing debate. Generally, as the COP is not an international organization, its decisions have no binding force beyond the treaty regime. Such decisions are often referred to as ‘secondary law’. See R. Verheyen, n. 9 above, at 67ff.; and J. Brunnée, ‘COPing with Consent: Law-Making under Multilateral Environmental Agreements’, 15:1 Leiden Journal of International Law (2002), 1.

\(^{42}\) Compare UNFCCC, Decision 1/CMP.4, Adaptation Fund (UN Doc. FCCC/KP/CMP/2008/11/Add.2, 19 March 2009), at paragraph 11 (eventually giving legal capacity to the Adaptation Fund to enter into contracts and disburse funds).

\(^{43}\) These included detailed inputs from AOSIS, the LDC Group and the African Group. See <http://unfccc.int/adaptation/groups_committees/loss_and_damage_executive_committee/items/8422.php>.

\(^{44}\) Decision 2/CP.20, n. 38 above; UNFCCC, Report of the Executive Committee of the Warsaw International Mechanism for Loss and Damage Associated with Climate Change Impacts (UN Doc. FCCC/SB/2014/4, 24 October 2014) (‘2014 ExCom Report’), at Annex II.

\(^{45}\) Summary of ExCom 2 conclusions (5 February 2016), found at: <https://unfccc.int/files/adaptation/groups_committees/loss_and_damage_executive_committee/application/pdf/summary_of_decisions_5_feb.pdf>.

\(^{46}\) See 2014 ExCom Report, n. 43 above, at Annex II (emphasis added). Work plan action areas and activities can be found at: <http:// unfccc.int/adaptation/workstreams/loss_and_damage/items/8805.php>.  © 2016 John Wiley & Sons Ltd
them. The individual activities agreed thus far under these headings have not been ambitious, they do not yet have a clear strategic end goal or purpose and there is no clear time frame for the delivery of ‘ways forward’ and ‘next steps’. The WIM ExCom is comprised of an equal number of developed and developing country representatives and it is required to take decisions by consensus.47 Accordingly, a degree of compromise is to be expected among party representatives, but there is room for much greater ambition to fulfil the WIM’s mandate nevertheless.

PARIS NEGOTIATING POSITIONS AND OUTCOMES

Before Paris, AOSIS and the LDC Group had loss and damage firmly in their ‘must-have’ category for the Paris Agreement, alongside ambitious mitigation commitments, a 1.5 °C long-term temperature goal in the purpose of the agreement, and strengthened provisions on adaptation and finance.48

Initial textual inputs from parties with respect to loss and damage are reflected in the Geneva Negotiating Text.49 Developing countries sought a body that would not just enhance understanding and share information, but that would actually develop a system, within a fixed time frame, to address loss and damage. They did not wish to lose the progress made in setting up the WIM by starting over with a completely new mechanism. But, by the same token, they wanted a body with a stronger mandate responsible for loss and damage. Their central concern was that vulnerable developing countries should not be left to address loss and damage at the national level without financial and technical support (e.g., as part of their own National Adaptation Plans), but that loss and damage should be recognized as a field of international activity, with tools developed at the international level to provide this support, given the equities involved. They were also concerned about the possible loss of the WIM post-Paris, in the course of the 2016 review of the WIM, mandated by Decision 2/CP.19.

Developed countries meanwhile had little interest in drawing attention to loss and damage. They argued that loss and damage was being addressed satisfactorily under the WIM, and the WIM should be given time to show what it could deliver. If references to loss and damage were needed for political reasons (i.e., to secure an agreement), developed countries sought to place these references in the context of adaptation efforts (e.g., measures to lessen loss and damage), not separate from adaptation, and not in a separate section with its own heading. The ‘red line’ for developed country parties, and especially the United States (US), was the issue of compensation, though the intent and scope of this term was never defined or described with any precision by any party. The US in particular wanted to avoid any reference to loss and damage or compensation that might jeopardize its ability to ratify an internationally legally binding Paris outcome. For domestic reasons, it wished to be able to ratify any binding outcome by Executive Agreement (rather than through Congressional approval).50 To this end, it wished to ensure that any final text adopted could be understood, if necessary, as an implementing agreement, within the COP’s existing mandate, under Article 7 of the Convention (as the US had proposed in Copenhagen). For this reason, it was also important to the US that the Agreement not produce any new obligations on finance or on loss and damage.51

Accordingly, the most contentious issues for Paris with respect to loss and damage were:52

- WIM or new mechanism: whether a new mechanism should be created under the new treaty, or whether the WIM should be maintained and possibly strengthened under the Convention.

47 Decision 2/CP.20, n. 38 above.
51 Ibid.
52 Geneva Negotiating Text, n. 49 above. On finance, see ibid., at paragraphs 89–90 (referring to ‘financing loss and damage’, a ‘special window’ for loss and damage, and a ‘Loss and Damage Fund’). For more on parties’ negotiating positions on loss and damage generally, see: M. Burkett, ‘Reading between the Lines: Loss and Damage and the Paris Outcome’, 6:1 Climate Law (2016), 118; G. Taraska, ‘The Meaning of Loss and Damage in the International Climate Negotiations’ (30 September 2015), found at: <https://cdn.american-progress.org/wp-content/uploads/2015/09/29134813/LossAndDamagefinal.pdf>.
• Distinction between adaptation and loss and damage: whether loss and damage and adaptation would be reflected in the agreement as separate and distinct issues.

• Dedicated article: whether loss and damage would be addressed in a separate article of the new agreement or whether a reference to the WIM in a COP decision or in an article linking adaptation and loss and damage would suffice to address developing country concerns.

• Compensation and liability: whether and how the issue of financial responsibility (‘compensation and liability’) would be addressed.

• Finance: whether a specific funding stream would be created or identified for loss and damage.

Given the lack of aggregate mitigation effort evident in parties’ intended nationally determined mitigation contributions, developing countries were eager to see loss and damage parties.

• No new mechanism to address loss and damage is created; the WIM is maintained but ‘may’ be strengthened through the Paris Agreement.

• The concern that the WIM might not survive beyond the Paris Agreement is addressed through Decision 1/CP.21, paragraph 47, which ‘[d]ecides on the continuation of the [WIM], following the review in 2016’ and Article 8 of the Agreement, which together take as a given the WIM’s continued existence.

• All Paris Agreement articles are untitled. Loss and damage is addressed in its own dedicated Article of the Agreement – Article 8 – which emerged from the negotiations on loss and damage but which bears no title. This provision is clearly separate from Article 7, which covers adaptation, but also separate from Article 9, which covers finance and support. Decision 1/CP.21 contains a separate heading ‘loss and damage’, and introduces five paragraphs of decision text related to the WIM, its mandate and interpretation of the Paris Agreement.55

• Compensation and liability is not addressed in the Paris Agreement, but is addressed explicitly in Decision 1/CP.21.

ARTICLE 8 OF THE PARIS AGREEMENT AND DECISION 1/CP.21 ON LOSS AND DAMAGE

The Paris outcomes on loss and damage are found in two places: (i) the Paris Agreement itself, an agreement adopted pursuant to the Durban Mandate ‘under’ the Convention, but also a separate treaty in the sense of the Vienna Convention on the Law of the Treaties; and (ii) in Decision 1/CP.21 adopting the Paris Agreement, and to which the Agreement is annexed.56

In the previous section, we highlighted some of the key outcomes of the Paris negotiations. Below, we discuss some issues that remain challenging following the adoption of these outcomes: the implications of paragraph 51 of Decision 1/CP.21; the relationship between the CMA and the COP in the context of the WIM after Paris; the WIM’s link to finance; and outcomes on insurance and displacement. We then briefly address the role of the WIM after adoption of the Paris Agreement.

COMPENSATION AND LIABILITY: PARAGRAPH 51 OF DECISION 1/CP.21

Through paragraph 51 of Decision 1/CP.21, the UNFCCC COP ‘[a]grees that Article 8 of the Agreement does not involve or provide a basis for any liability or compensation’.59 This paragraph has caused consternation among those interested in climate justice since its adoption. What does this paragraph actually mean? Does it constrain the work and development of the WIM under the Paris Agreement?

Despite the parties’ agreement to include this interpretive paragraph in the Paris Agreement’s adopting decision, the terms ‘compensation’ and ‘liability’


54 Paragraph 47’s wording is slightly ambiguous, due to the location of the comma; has a decision to continue the WIM been taken in Paris, or has a decision been taken to take a decision after the review? Nevertheless, references to the WIM in Decision 1/CP.21 and in the Paris Agreement itself signal that the WIM will continue.

55 Decision 1/CP.21, n. 2 above, at paragraphs 47–51.

56 For a take on two of these aspects of the Paris outcome, see S. Biniaz, ‘Comma but Differentiated Responsibilities: Punctuation and Other Ways Negotiators have Resolved Issues in the International Climate Change Regime’ (Sabin Center for Climate Change Law, June 2016), at 21, 23 (regarding a distinct Article for loss and damage and the reference to compensation and liability).


58 UNFCCC, Decision 2/CP.21, Warsaw International Mechanism for Loss and Damage Associated with Climate Change Impacts (UN Doc. FCCC/2015/10/Add.1, 29 January 2016), also adopted in Paris, addresses the ongoing work of the WIM. See D. Bodansky, n. 57 above for further analysis of the relationship between the Agreement and its adopting Decision 1/CP.21.

59 Decision 1/CP.21, n. 2 above, at paragraph 51.
were never discussed at a sufficient level of detail to establish a clear and common understanding of their parameters, or to what these terms precisely refer in the context of Article 8 and/or the WIM. Whose liability – States or private entities? For what impacts? Over what time frame? Compensation in what form? For what wrongful act precisely? Moreover, the words ‘involve’ and ‘provide a basis for’ are quite vague, producing a predictable lack of clarity on the scope and purpose of this paragraph. What does ‘involve’ mean exactly? And in what sense does it ‘provide a basis for’?

The phrase ‘loss and damage’ does not necessarily connote legal liability or State responsibility for damage, even if both loss and damage are terms that can be understood in a legal context.60 Liability as a legal notion within the climate regime has been referred to primarily in the context of Principle 13 of the Rio Declaration (‘States shall cooperate in an expeditious and more determined manner to develop further international law regarding liability and compensation for adverse effects of environmental damage caused by activities within their jurisdiction or control to areas beyond their jurisdiction’),61 in the 2008 AOSIS proposal62 and in non-governmental organizations’ submissions.63 Paragraph 51 does not preclude the ‘development’ of anything.

Paragraph 51’s ‘interpretation’ is contained in the decision adopting the Paris Agreement, rather than in the Agreement itself, which is significant. The legal status of COP decisions is debated, but scholars agree that they do not constitute binding rules under international law.64 Decisions do capture the parties’ agreement on an issue at the time they are taken,65 though such understandings are often superseded by later understandings, subsequent decisions providing greater detail, or decisions recasting earlier decisions. The interpretation or assessment put forward in paragraph 51 could at any point in time be replaced by another decision of the COP or by a decision of the CMA, as only Article 8 (and not paragraph 51) is part of the treaty that is the Paris Agreement.

Furthermore, paragraph 51 of COP Decision 1/CP.21 is intended to interpret Article 8 of the Paris Agreement. Yet the Paris Agreement is itself a treaty distinct from the UNFCCC, as understood under the Vienna Convention on the Law of the Treaties (VCLT),66 though it is part of the Convention’s broader ‘architecture’ due to its adoption by the UNFCCC parties and its many references to the UNFCCC.67 Strictly speaking, one may argue that the interpretation provided in paragraph 51 is misplaced – that it has been put forward by the wrong set of parties and by the wrong body, that is, by the COP rather than by the CMA. This may seem a somewhat formalistic argument and distinction, as all future parties to the Paris Agreement will most likely also be party to the Convention. But in the 2009 Compliance Committee Enforcement Branch decision on Croatia, it rejected the applicability of a decision taken under the Convention with relation to Croatia’s base year emissions, when this was raised in the context of the Kyoto Protocol.68 Paragraph 51 has not been adopted by the CMA. It also needs to be taken into account that the Marrakech Accords were negotiated by the COP, but had to be adopted by the Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol before they were applicable under the Kyoto Protocol.

It is worth taking a closer look at the two elements of paragraph 51:

- Article 8 does not provide a basis for ‘any liability or compensation’; and
- Article 8 does not involve ‘any liability or compensation’.

In an international law context, ‘compensation’ would normally refer to a legal consequence due to wrongful behaviour.69 Compensation is one way to make

60 Vienna Convention on the Law of Treaties (Vienna, 23 May 1969; in force 27 January 1980), Article 2(1)(a) and (b). The Paris Agreement is ‘an international agreement concluded between States in written form and governed by international law’ that requires ratification, acceptance, approval or accession by State parties as an expression of their consent to be bound. See, for an ex ante analysis, D. Bodansky and L. Rajamani, ‘Key Legal Issues in the 2015 Climate Change Negotiations’ (Center for Climate and Energy Solutions, 2015).
61 This term has been used ex ante by D. Bodansky and L. Rajamani, n. 66 above.
62 UNFCCC, Enforcement Branch of the Compliance Committee, Final Decision (UN Doc. CC-2009/1-8/Croatia/EB, 26 November 2009), at paragraph 3(c): ‘The application of decision 7/CP.12 under the Kyoto Protocol does not follow from any of the provisions of the Kyoto Protocol or from CMP decisions. Since the COP and the CMP are two distinct decision-making bodies, the fact that all Parties to the Kyoto Protocol are also Parties to the United Nations Framework Convention on Climate Change does not provide a sufficient basis for establishing the application of COP decisions under the Kyoto Protocol.’
reparation or rehabilitation (through restitution, compensation, satisfaction, see Article 34 of the International Law Commission’s Draft Articles on State Responsibility) but clearly refers to monetary payments to ‘make good’ damage caused.70 The term ‘liability’ can refer to civil liability (of private entities, such as under the oil pollution fund regime) or State liability (i.e., strict responsibility).

With respect to the first statement above, this reference is limited to Article 8 – stating that Article 8 does not contain clear obligations that could ‘provide a basis for’ compensation should they not be fulfilled. However, the obligations contained in Article 4 of the Paris Agreement, for example, relating to nationally determined contributions, could very well ‘provide a basis’ for compensation should they not be fulfilled, if parties fail to bring forward or fail to meet sufficiently ambitious mitigation goals, consistent with the long-term temperature goal set out in Article 2. Yet paragraph 51 does not refer to Article 4 or to the Agreement as a whole.

An interpretation of Article 8 of the Agreement does not and cannot impact any State activities prior to the entry into force of the Paris Agreement. Nor can a COP decision alter or waive general rules of customary international law. Public international law remedies remain available and are unaffected by paragraph 51. This seems to have been the consensus in the last days of the Paris negotiations – even the proposal made by the US with respect to this matter, which is captured in the 10 December version of the Agreement, contained the clause ‘nor prejudice existing rights under international law’.71 Perhaps this last clause was dropped from the final version as self-evident. Regardless, a number of SIDS have already presented interpretive declarations with their instruments of ratification (Marshall Islands, Nauru, Tuvalu) to make this explicit.72

Parties pressing for paragraph 51 may have wished to avoid giving the impression that the WIM or activities under Article 8 would be expected to evolve into a State liability regime (e.g., the 1972 Space Object Convention73), a civil liability regime (e.g., the 1989 Basel Hazardous Waste Convention74) or a regime like the much-discussed oil spill regime, which has elements of both.75 However, the mandate of the WIM includes seeking input on methods to remedy loss, ‘including through recovery and rehabilitation’, as this has been agreed as an action area in the WIM’s work plan.76

Thus, overall, paragraph 51 clarifies very little. It does not preclude the WIM or the parties to the Paris Agreement from agreeing over time to a legal regime which might resemble a liability scheme or which may provide some kind of monetary payout or financial support in case of actual damage – whether or not the terms liability and compensation are used. Even an international system of ‘cooperation and facilitation’ established under the climate change umbrella could and may wish to employ tools used by liability regimes or international or domestic solidarity schemes to address transboundary impacts.77

However, explicitly noting that Article 8 itself does not address the issues of compensation and liability – at least in the near term – may allow for the development of a system at the international level that can address these same issues in a less confrontational manner, engaging States and even revenues from non-State actors in financing solutions.

In addition to not prejudicing existing rights, one can equally ask whether the Paris Agreement establishes any additional obligations with respect to loss and damage, or whether it merely reflects elements already agreed or initiated through earlier COP decisions. The Paris Agreement outcomes on loss and damage can certainly be seen as a reflection of ongoing work on loss and damage under the WIM, and the provisions of Article 8.4 certainly also resonate with work underway on adaptation in other Convention bodies. But at the
same time, Article 8 now gives a home to issues around loss and damage. The Paris Agreement therefore reinforces the fact that climate change policy and regulation is now three-pronged (mitigation, adaptation, and managing loss and damage).

**RELATIONSHIP BETWEEN THE CMA AND THE COP AFTER PARIS**

The WIM will remain exclusively subject to decisions of the COP until the entry into force of the Paris Agreement. Once the Paris Agreement enters into force, however, matters may become more complicated.

The WIM was originally established by a decision of the COP. The WIM ExCom is currently accountable to the COP through the SBI and SBSTA.78 However, Article 8.2 of the Paris Agreement provides that the WIM shall be subject to the authority and guidance of the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement and may be enhanced and strengthened, as determined by the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement.79

This raises the question of the future relationship between the COP and the CMA concerning WIM-related matters.

Upon entry into force, the WIM will essentially become a mechanism to serve both the UNFCCC and Paris Agreement. There are other existing bodies that will also serve both treaties. These include the entities entrusted with the operation of the Financial Mechanism (the Green Climate Fund and the Global Environment Facility), the Special Climate Change Fund, the Least Developed Countries Fund and the Standing Committee on Finance.80 The Secretariat, SBSTA and SBI serve the entire climate regime and will serve the Paris Agreement under Articles 17 and 18. The Adaptation Fund ‘may’ serve the Paris Agreement if parties to both the Paris Agreement and Kyoto Protocol agree.81 The Technology Mechanism ‘shall’ serve the Agreement under Article 10.3.

But the parties to the Paris Agreement have decided that the WIM ‘shall be subject to the authority and guidance of the CMA’. Any guidance and direction from the CMA that is directed to the WIM may take precedence, due to the nature of the Paris Agreement (legally binding treaty) as opposed to COP decisions (internally binding, soft law). There is also a clear intention to allow for the development and strengthening of the WIM by the CMA under Article 8.2 (the WIM ‘may be enhanced and strengthened, as determined by the CMA’). Legally, the WIM can be seen to be on the same level as the ‘mechanism to contribute to the mitigation of greenhouse gas emissions and support sustainable development’ established under Article 6.4 of the Agreement and the ‘mechanism to facilitate implementation and promote compliance’ established under Article 15, which will take direction from the parties to the Paris Agreement.

Many open questions remain. Can both the COP and the CMA give guidance to the WIM? Do both bodies need to agree on guidance? Which body signs off on work plan activities – the COP, the CMA or both? What happens to members of the WIM ExCom that are not parties to the Paris Agreement? Might they need to recuse themselves in certain situations? How will the WIM report to the CMA? What are the practical implications of different approaches? Will the COP and CMA continue to convene on the same cycles? What if they do not? These are important questions, because the answers may impact the ability of the parties to take the work of the WIM forward through layers of decision-making processes.

**THE LINK TO FINANCE AFTER PARIS**

The Paris Agreement does not include a clear link to financial support for activities related to loss and damage under the WIM, though Article 9 does state that ‘[d]eveloped countries shall provide financial resources to assist developing countries with respect to both mitigation and adaptation in continuation of their existing obligations under the Convention’.82

Much debate has taken place among the parties to the UNFCCC over the extent to which adaptation and general risk reduction activities are distinct from or can be differentiated from activities to ‘address loss and damage’. This has essentially been a debate about the coverage of the UNFCCC itself. Some developed countries saw, or wished to see, loss and damage as beyond its scope. The Convention, some argued, addressed mitigation and adaptation, and not the ‘consequences of failure to act’, meaning damage due to climate change. Some now take the view that adaptation and loss and damage are indistinguishable, as any risk reduction measure could both be categorized as ‘adaptation’ and as a measure ‘addressing loss and damage’ (e.g., by reducing loss).83 Others take the view that impacts will

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78 Decision 1/CP.21, n. 2 above, at paragraph 50; Decision 2/CP.19, n. 33 above, at paragraph 3.
79 Paris Agreement, n. 1 above, Article 8.2.
80 Decision 1/CP.21, n. 2 above, at paragraphs 58 and 63.
81 Ibid., at paragraph 57.
82 Paris Agreement, n. 1 above, Article 9 (emphasis added).
83 Compare, however, the series of UNEP Adaptation Gap Reports, which clearly distinguish ‘residual damages’ from adaptation. See <http://web.unep.org/adaptationgapreport/content/adaptation-gap-reports>.
exceed that which can or will be addressed by adaptation efforts and resources, and it is the role of the climate change regime to address these impacts.

Through Decision 2/CP.19, the parties acknowledged that ‘loss and damage associated with the adverse effects of climate change includes, and in some cases involves more than, that which can be reduced by adaptation’.84 While this can be understood in different ways, it does suggest that parties view loss and damage as not as fully equivalent to adaptation, or completely distinct from adaptation, but as an overlapping and interrelated issue, with boundaries that may not be fully defined. This understanding is an important one in the context of financial, capacity building and technical support.

If ‘loss and damage’ were considered to be subsumed under ‘adaptation’, drawing from the structure of the Cancun Agreements and the Bali Action Plan, it could be argued as a legal matter that all activities under the WIM qualify for support under Convention Article 4.4 and existing adaptation funding. Decision 2/CP.19 was taken under the Cancun Adaptation Framework85 and Article 9 of the Paris Agreement requires developed countries to provide financial resources to assist developing countries with respect to both mitigation and adaptation, in continuation of their existing obligations under the Convention. The challenge, however, is that even assuming existing adaptation funding were sufficient to address adaptation needs, adaptation alone cannot address many climate change impacts.86 It is simply not possible to ‘facilitate adequate adaptation’.

Studies have begun to distinguish risks that can be reduced through adaptation from ‘residual risk’ following adaptation and mitigation. The Fifth Assessment Report (AR5) of the Intergovernmental Panel on Climate Change (IPCC) refers to ‘risks’, the potential for reducing ‘risks’ through adaptation and mitigation, and ‘residual risks’.87 Studies increasingly emphasize that adaptation and mitigation efforts reduce future loss and damage, but will not eliminate loss and damage for many regions and sectors.88 Studies have also begun to disaggregate the cost of cost-effective adaptation from the cost of ‘residual damage’ remaining after adaptation, finding, for example, that even if all cost-effective adaptation is realized, Africa will still suffer ‘residual’ damages estimated at double the level of adaptation costs in the period 2030–2050.89

This will become an issue in the climate regime over time, not least because Article 4.4 of the Convention obliges developed country parties to assist particularly vulnerable developing countries in meeting the costs of adaptation, but also because Article 8.3 of the Paris Agreement now refers to ‘support’ for measures to address loss and damage. Article 8.1 recognizes ‘the importance of averting, minimizing and addressing loss and damage associated with the adverse effects of climate change’90 and the notion of financially addressing loss and damage is captured in the term ‘addressing’. Article 8.3 builds on this by emphasizing that ‘action and support’ should be strengthened with respect to loss and damage and this strengthening should happen ‘through’ the WIM, as well as through party action. While this language is not nearly as clear as Article 4.4 of the UNFCCC (‘shall assist’) it represents a clear recognition of the link between loss and damage and support under the Financial Mechanism.

Bodansky has qualified Article 8 language as an expectation or recognition rather than a legal obligation,91 but the term ‘support’ is generally understood to refer to all sorts of support, including financial support, and Article 8.3 must be taken in the context of what is now a clearly established mechanism – the WIM. Decision 2/CP.19, paragraph 5(c)(ii) includes the mandate for the WIM to ‘provide[e] information and recommendations for consideration by the [COP] when providing guidance relevant to reducing the risks of loss and damage and, where necessary, addressing loss and damage, including to the operating entities of the financial mechanism of the Convention’,92 which now include both the Global Environment Facility and the Green Climate Fund.93 The WIM is also mandated to:

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84 Decision 2/CP.19, n. 33 above, at preambular paragraph 4.
85 Ibid., at paragraph 1, referring to Decision 1/CP.16, n. 27 above, Section II (‘Enhanced Action on Adaptation’).
86 UNEP, Adaptation Finance Gap Report 2016 (UNEP, 2016), at xii and 40–42, noting that the AR5 reported global estimates of the costs of adaptation in developing countries at between US$70 billion and US$100 billion per year between 2010 and 2050; later studies suggest that by 2030 the costs of adaptation are likely to be two to three times higher than the range cited in the AR5, and potentially four to five times higher by 2050, reaching US$280–500 billion per year. Developed countries have agreed to mobilize US$100 billion per year to address both mitigation and adaptation. See Decision 1/CP.21, n. 2 above, at paragraphs 53 and 114.
88 Ibid.; see also the discussion in UNEP, Africa’s Adaptation Gap 2 (UNEP, 2015), at 8–9.
89 See UNEP, n. 88 above.
90 Paris Agreement, n. 1 above, Article 8.1.
91 See D. Bodansky, n. 57 above.
92 Decision 2/CP.19, n. 33 above, at paragraph 5(c)(ii) (emphasis added).
93 Decision 1/CP.16, n. 27 above, established a Green Climate Fund as an operating entity of the Financial Mechanism of the Convention under Article 11; see also Decision 1/CP.21, n. 2 above, at paragraph 58.
Facilitate[e] the mobilization and securing of expertise, and enhancement of support, including finance, technology and capacity-building, to strengthen existing approaches and, where necessary, facilitate the development and implementation of additional approaches to address loss and damage associated with climate change impacts, including extreme weather events and slow onset events.\textsuperscript{94}

Thus, Article 8.3’s reference to ‘action and support’ reinforces the link between loss and damage and support under the Financial Mechanism. While it would have been desirable to include a clear link to financial support for the WIM itself and for activities under the WIM in the Paris Agreement, this express link was not politically possible in Paris. It remains to be seen what kind of financial support will be needed and what kind of existing or additional funding window can be accessed or will be established. It seems that developed countries are open to addressing some elements of loss and damage already, as evidenced by clear commitments towards financing insurance components.\textsuperscript{95}

\textbf{INSURANCE-RELATED ISSUES AFTER PARIS}

The term ‘insurance’ has been used in a broad sense by AOSIS over the years – somewhat euphemistically – to describe a desired system that would provide compensation for loss and damage suffered by particularly vulnerable developing country parties.\textsuperscript{96} This began back in 1991 with the proposed AOSIS ‘Insurance Annex’, with a funding system modelled on a liability and compensation scheme. Since then, vulnerable parties have looked for ‘insurance-related approaches’ to address both slow onset events and extreme weather events, made more frequent or severe through anthropogenic climate change, that are designed to recognize and address the additional burden and cost vulnerable parties face in responding to the impacts of human-induced climate change. AOSIS, for example, has expressed interest in ‘risk sharing’, ‘risk transfer’ and ‘risk pooling’ – insurance-related notions that it has indicated should be understood to include an element of international support (‘risk sharing’ between developed and developing countries), a shifting of the financial burden of impacts (‘risk transfer’), from impacted countries to those contributing most directly to this impact, and systems in which contributions are made to an international or regional financial pool and disbursed to parties in need (‘risk pooling’).\textsuperscript{97} It is understandable that developed countries are eager to understand these same terms as elements of traditional insurance that can support adaptation at the national or sub-national level, while particularly vulnerable developing countries, in contrast, see these phrases as referring to international financial support to manage and address risk and impacts, and technical support to design innovative ‘insurance-related’ tools that can redistribute risk, transfer risk and share the cost of impacts between developed and developing countries. AOSIS has expressed support also for non-traditional ‘insurance’ tools and risk-layering and risk-sharing approaches.\textsuperscript{98} Prior to the establishment of the WIM, insurance workshops, adaptation ‘pillars’ and agenda items, of necessity, provided the available spaces to raise these political issues. AOSIS’s 2008 proposal sought international financial support for all elements of the ‘Multi-Window Mechanism’ under an adaptation heading, but at the same time acknowledged that the mechanism as a whole would address loss and damage not avoided by adaptation through a compensatory component.\textsuperscript{99}

Article 8.4 now provides a list of illustrative ‘areas of cooperation and facilitation’ in which work to ‘enhance understanding, action and support’ may be undertaken. These include: (i) early warning systems; (ii) emergency preparedness; (iii) slow onset events; (iv) events that may involve irreversible and permanent loss and damage; (v) comprehensive risk assessment and management; (vi) risk insurance facilities, climate risk pooling and other insurance solutions; (vii) non-economic losses; and (viii) resilience of communities, livelihoods and ecosystems.\textsuperscript{100}

\textsuperscript{94} Decision 2/CP.19, n. 33 above, at paragraph 5(c)(iii).


\textsuperscript{96} See the discussion at the beginning of this article; and 2007 AOSIS Dialogue Working Paper, n. 16 above; 2008 AOSIS Proposal, n. 22 above.

\textsuperscript{97} See 2007 AOSIS Dialogue Working Paper, n. 16 above, at 6–9; 2008 AOSIS Proposal, n. 22 above, at 29–30 (e.g., referring to an ‘internationally-supported’ mechanism and ‘lifting the burden of climate risk’ on vulnerable parties); and 30–31 (citing proposed ‘Scheme C’, a ‘climate change risk management mechanism’ put forward in a UNFCCC Secretariat Technical Paper on ‘Mechanisms to Manage Financial Risks from Direct Impacts of Climate Change in Developing Countries’, and appreciating its long-term approach at the global level that recognizes that support is needed from the international community where underlying risks may be uninsurable due to the high degree of hazard or the inability of the parties at risk to pay an adequate premium). See also UNFCCC, ‘Mechanisms to Manage Financial Risks’, n. 20 above, at 78–82 (Scheme C).

\textsuperscript{98} For further discussion, see UNFCCC, ‘Mechanisms to Manage Financial Risks’, n. 20 above, at 4–10 (executive summary); at 69–82 (proposing potential financial solutions for developing countries through Schemes A, B and C); and 98–104 (recognizing the benefits and challenges of insurance and ‘non-insurance’ mechanisms, and the need for the development of creative approaches).

\textsuperscript{99} 2008 AOSIS Proposal, n. 22 above, at 20 (addressing financing for all elements of the proposed mechanism).

\textsuperscript{100} Some of these items can also be found in previous COP decisions and financial guidance related to adaptation, sometimes couched in different terminology. See, e.g., Decision 5/CP.7, n. 10 above, at paragraphs 7(b)(vii), referring to early warning systems; and Decision 1/CP.10, n. 14 above. See also, for instance, the work under the Nair- obi Work Programme, the Adaptation Committee and the Least Developed Countries Expert Group, using terminology such as ‘costs of inaction’ and ‘longer-term impacts’. 
In the near term, Decision 1/CP.21 requests the WIM ExCom ‘to establish a clearing house for risk transfer that serves as a repository for information on insurance and risk transfer, in order to facilitate the efforts of Parties to develop and implement comprehensive risk management strategies’. This language was proposed – in the form of decision text – by developed countries, in response to further-reaching treaty text for the Paris Agreement proposed by developing countries. It does not respond to the long-standing request from developing countries for a technical advisory body as part of a mechanism on loss and damage, capable of providing advice and support for the development and funding of innovative insurance-related tools to address the particular needs of particularly vulnerable countries. Nor does it respond to the specific request of the LDC Group for a clearing house, as part of the Paris Agreement itself, with a broader function relating to financial support for rehabilitation. Following Paris, it is left ambiguous whether the mere existence of a clearing house is expected to facilitate national efforts or whether the WIM will work to facilitate the development of comprehensive risk management strategies at the international level for parties that will be particularly hard hit by the impacts of climate change – for example, those facing existential threats.

Nevertheless, Article 8.4’s listing of areas in which ‘co-operation and facilitation’ to enhance ‘action and support’ may be undertaken leaves the future role of ‘insurance-related’ instruments and tools, broadly understood, wide open. For example, ‘risk insurance facilities, climate risk pooling and other insurance solutions’, could, if creatively structured through work commissioned by the WIM, and financed through international support, be used to fashion an international response to loss and damage associated with extreme and slow onset events and address ‘recovery and rehabilitation’ needs, linking action areas 5 (resilience, recovery and rehabilitation) and 7 (financial instruments and tools).

**DISPLACEMENT**

Similarly, paragraphs 49 and 50 of Decision 1/CP.21 request the WIM ExCom ‘to establish … a task force … to develop recommendations for integrated approaches to avert, minimize and address displacement related to the adverse impacts of climate change’ and to report back on its progress in its annual report. This paragraph works substantively within the mandate of Article 8.4(c)–(e) of the Agreement. The reference to ‘displacement’ in the Paris outcome responds to the request by developing countries for attention to this issue, but without necessarily establishing the facility under the Agreement or under the WIM as requested by developing countries, though this future possibility exists. As with paragraph 48, paragraph 49 also resonates with work already underway through the WIM’s two-year work plan, including under existing action area 6 (migration, displacement and human mobility).

However, addressing displacement methodically over the long term, is certainly an area of work in which ‘supporting parties’ will not be sufficient and an international framework will have to be developed by the WIM or the parties to the UNFCCC and Paris Agreement.

**WHAT ROLE FOR THE WIM GOING FORWARD?**

So what then is the role of the WIM in the wake of the Paris outcome? The key elements vulnerable countries have sought over the years are referenced in previous parts of this article.

Developing countries have sought a ‘mechanism’ that would be permanent, have independence, provide technical and financial support in minimizing loss and damage and help devise approaches and technical and financial tools to address the loss and damage experienced by the most vulnerable. Few of these aspirations have been realized in the WIM’s operation or structure thus far. Nevertheless, the WIM’s mandate, headings and ‘action areas’ in effect could enable what was proposed initially in the AOSIS-Multi-Window Mechanism – over time.

First, the mandate of the WIM is broad enough to encompass many of the concerns addressed by what has been termed ‘compensation’. Decision 3/CP.18 lists as a ‘further work area’ ‘approaches to rehabilitate from loss and damage associated with the adverse effects of climate change’. Action area 5 also contains a link to

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101 Decision 1/CP.21, n. 2 above, at paragraph 48.
103 See Geneva Negotiating Text, n. 49 above, option III, at paragraph 78: ‘The purpose of the clearing house for risk transfer shall be to: a. Provide a repository for information on insurance and risk transfer; b. Assist Parties in developing risk management strategies and finding best insurance schemes; c. Facilitate financial support for rehabilitation.’
104 Paris Agreement, n. 1 above, Article 8.4(f) refers to ‘risk insurance facilities, climate risk pooling and other insurance solutions’.
105 Decision 1/CP.21, n. 2 above, at paragraph 49.
107 Decision 3/CP.18, n. 32 above, at paragraph 7.
what might be termed compensation, in its reference to building resilience through ‘recovery and rehabilitation’; this could eventually lead to a type of ‘Rehabilitation Component’, as proposed by AOSIS in 2008. This is noteworthy, particularly in the context of Decision 1/CP.21, paragraph 51.

Second, the WIM has room to address insurance-related issues in connection with action area 7 on ‘financial instruments and tools’ and other action areas. The ExCom has put out a call for written submissions with respect to ‘best practices, challenges and lessons learned from existing financial instruments at all levels that address the risk of loss and damage associated with the adverse effects of climate change’, including ‘those financial instruments in the context of social protection, risk reduction, preparedness, response and recovery, and those more broadly related to building resilience against loss and damage associated with extreme and slow onset events’. The issue of financial instruments next will be taken up at a forum organized by the Standing Committee on Finance in early September 2016 and a link to the Financial Mechanism could be developed to provide technical and financial support. Over time, this work area could lead to an insurance component, as called for by AOSIS.

Third, there is ample room for the WIM to do further work on risk assessment and risk management, also as sought by AOSIS and other developing countries, by developing methodologies and gathering the latest information on projected impacts at different levels of global warming, in different regional and national contexts, to enhance knowledge and understanding and inform the development of appropriate approaches to address loss and damage. The penultimate section of this article addresses recent developments in attribution science that should become part of the body of knowledge used by the WIM to inform parties on the timing and scale and nature of the impacts that can be anticipated at various levels of warming.

In response to the original call by the ExCom for inputs to the WIM’s initial two-year work plan, AOSIS put forward both a long-term strategic vision for the WIM and a set of supporting activities. These remain equally relevant today. The LDC Group also presented a series of long-term needs and specific activities that could begin to address these needs. The African Group and the Group of 77 provided reinforcing messages. These submissions should be revisited and embraced in the development of the WIM’s anticipated five-year rolling work plan, in recognition of the serious concerns facing many of these vulnerable countries, which are only becoming more pressing over time.

**SIGNIFICANCE OF THE 1.5 °C TEMPERATURE LIMIT IN THE CONTEXT OF LOSS AND DAMAGE**

Under Article 8.1 of the Paris Agreement, the ‘Parties recognize the importance of averting, minimizing and addressing loss and damage associated with the adverse effects of climate change, including extreme weather events and slow onset events’.

In this context, an extremely significant outcome of the Paris COP was the decision taken by the COP to strengthen the ‘below 2 °C’ long-term goal adopted in Cancún. This followed consideration of the adequacy of this long-term goal in view of its impacts, under the 2013-2015 review process established under Decision 1/CP.16. The new goal is adopted in Decision 10/CP.21, paragraph 4, and reflected in Article 2 of the Paris Agreement, under which parties adopt a goal of: ‘Holding the increase in the global average temperature to well below 2 °C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5 °C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change’.

Together, Articles 2 and 4 provide the primary obligation of the Paris Agreement and set the pace and direction for mitigation action: peaking as soon as possible, rapid reductions thereafter, net zero emissions in the second half of the century, in pursuit of a limit in global average surface temperature increase to 1.5 °C above pre-industrial levels. The Agreement requires each party to present a successive nationally determined contribution every five years that will represent a progression beyond the party’s then current contribution, and reflect its ‘highest possible ambition’.
By putting in place a strengthened global goal, and moving from a ‘below 2 °C’ to a ‘well below 2 °C’ and 1.5 °C limit, the Paris outcome provides support to initiatives like the Urgenda Foundation’s case against the Dutch government, which urged greater national mitigation ambition in light of the significance of each party’s emissions in contributing to climate impacts, as well as support to the series of atmospheric trust cases brought by Our Children’s Trust and others, emphasizing the obligation of governmental bodies to safeguard their populations and the atmosphere for future generations. These cases are based on predictions of damage, both national and global.

Arguably, a failure to aggressively pursue an emissions pathway consistent with a 1.5 °C limit in temperature increases could now provide a basis for compensation and liability, since this goal forms part of the primary obligations accepted by parties upon ratification. Many parties’ intended nationally determined contributions were presented prior to Paris in the context of a 2 °C goal and fell short of the ambition required; Decision 1/CP.21 requests that parties communicate new and updated nationally determined contributions by 2020.118 Studies have already begun to detail the substantially greater risks and impacts at 2 °C of warming compared to those at 1.5 °C;119 parties are on notice of these enhanced risks and impacts following the results of the 2013–2015 review; and all parties have already recognized through Decision 10/CP.21 that pursuing the 1.5 °C limit ‘would significantly reduce the risks and impacts of climate change’.

117 See Urgenda Foundation and 886 Citizens v. the State of The Netherlands, [2015] C/09/456689/HA ZA 13-1396, in which the court ruled there was a sufficient causal link between Dutch emissions and climate impacts, and in which the Dutch government was ordered to reduce emissions by at least 25% from 1990 levels by 2020, rather than the 17% planned); see also Foster et al. v. Washington State Department of Ecology, Case No. 14-2-25295-1 SEA (15 Nov. 2015), in which Washington state was told it has a mandatory duty to preserve, protect, enhance air quality for current and future generations.

118 Decision 1/CP.21, n. 2 above, at paragraphs 18–18 (noting aggregate effect of intended nationally determined contributions) and 23–24 (requesting new and updated communications). An IPCC Special Report on 1.5 degree pathways and impacts is due in 2018, to inform parties’ new and updated nationally determined contributions. See ibid., at paragraph 21. See also n. 53 above.

119 See C.F. Schlessern et al., ‘Differential Climate Impacts for Policy-Relevant Limits to Global Warming: The Case of 1.5 °C and 2 °C’, 7 Earth System Dynamics (2016), 327; UNFCCC, Report of the Structured Expert Dialogue on the 2013–2015 Review (UN Doc. FCCC/SB/2015/INF.1, 4 May 2015), Annex III, at paragraph 35 (for highly temperature-sensitive systems, such as the polar regions, high mountains and the tropics, the difference in projected risks between a warming of 1.5 °C and 2 °C is significant); ibid., Annex III, at paragraph 48 (to protect at least 50% of warm water coral reefs, global mean temperature change would have to be limited to 1.1–1.4 °C, without taking into account the effects of ocean acidification); IPCC, n. 87 above, SPM.1, Figure 1 and SPM.2, Table 1.

HISTORICAL RESPONSIBILITY FOR IMPACTS AND DEVELOPMENTS IN ATTRIBUTION SCIENCE

In the months since Paris, the causal link between particular emissions and particular impacts has come into even sharper focus. At the April 2016 European Geosciences Union General Assembly, research results were presented identifying the relative historical contributions of individual State parties to the increase in temperature in 2100 resulting from cumulative greenhouse gas emissions through 2012, based on the Brazilian Proposal.120 According to this work, emissions through 2012, even if immediately cut thereafter, would still result in 1 °C warming by 2100, with responsibility for this warming found to be as follows: US (20%), China (12%), EU-28 (17%), Russia (6%), India (5%), Brazil (4%), rest of the World (34%).121

The contribution of individual fossil fuel and cement producers to historical cumulative emissions has been detailed in a 2014 study by Richard Heede, addressing carbon dioxide and methane produced between 1751 and 2010.122 The following top the list: Chevron (3.52%), ExxonMobil (3.22%), Saudi Aramco (3.17%), BP (2.47%), Gazprom (2.22%).

An expert on glaciers has found that if global warming stopped today, glaciers would continue to melt, losing 30% of their current mass and contributing 100 millimetres to sea-level rise, just in response to past emissions – loss to which we are committed, but that has just not yet been realized.123 Actions have consequences and we now know better than ever how to quantify these consequences and link them back to emissions and even emitters.

A 2012 study has disaggregated sea-level rise due to climate change, climate variability and ground motion at various islands in the Pacific, finding that some have

120 A proposed approach for distributing the burden of emission reductions based on the effect of their cumulative historical emissions (since 1840) on the global average surface air temperature. See <http://unfccc.int/methods/other_methodological_issues/items/2955.php>.


suffered an acceleration of sea-level rise well beyond the global average.\textsuperscript{124} A 2016 study has shown that climate change has enhanced El Niño-related sea-level extremes, especially in the tropical Pacific, creating a seesaw effect that exacerbates the coastal impacts of sea-level rise.\textsuperscript{125} Work is underway on the impacts of sea-level rise and storm-induced inundation on the sustainability of atoll nations in the Pacific, the time frame for tipping points and the ‘potential for geopolitical consequences caused by the need to possibly relocate atoll island-states throughout the Pacific and Indian Oceans’.\textsuperscript{126}

There has also been rapid progress in ‘event attribution science’ in the last few years, which seeks to determine to what extent anthropogenic climate change has altered the probability or magnitude of particular damaging extreme weather and climate-related events.\textsuperscript{127} A 2016 study on coastal flooding in the US, for example, found a greater than 95% probability that more than half of observed flood days over the last decade would not have occurred without the human contribution to global sea level.\textsuperscript{128} Another recent study looked at precipitation extremes worldwide, finding that at current warming of 0.85 °C, about 18% of moderate daily precipitation extremes over land are attributable to the observed temperature increase since pre-industrial times; at 2 °C, this share would rise to about 40%.\textsuperscript{129}

These and other recent studies draw an increasingly close link between emissions and particular impacts, in ways that should increasingly make emitters and policy makers take note. Based on these kinds of studies, for example, a Peruvian homeowner, faced with a severe glacial outburst flood, has taken legal action against RWE, a major German coal utility, aiming to make the emitter take action to reduce the flood risk.\textsuperscript{130}

As a result, whether a formal process labelled ‘compensation and liability’ is eventually established under the WIM, the UNFCCC or the Paris Agreement, or approaches to address permanent and irreversible loss and damage develop under another label within the climate regime, the issue of responsibility remains and cannot be ignored in view of the equities involved.\textsuperscript{131} It will remain the elephant in the room for future climate negotiations, despite the interpretive clause analysed above.

These scientific developments should in any event give momentum and direction to the work of the WIM, because against this backdrop, it should in theory be more advantageous to address the permanent loss and damage experienced by particularly vulnerable parties through a collaborative process under the climate change regime, than through a contentious process outside the regime – provided that such a process can deliver what vulnerable countries have sought in calling for an international mechanism to address loss and damage.\textsuperscript{132} This is in fact the role of liability and compensation regimes: to lend predictability to how the impacts of transboundary pollution will be addressed for the benefit of all parties.

CONCLUSION

After the Paris COP, all options remain open for addressing loss and damage under the Convention and Paris Agreement. Loss and damage has received the profile sought by vulnerable developing countries in the Paris Agreement. The WIM has been ‘anchored’ in the Paris Agreement. Initiatives have begun on risk transfer tools and on a set of ‘areas of cooperation and facilitation’ have been set out, re-emphasizing WIM areas of work. It has been declared that the WIM may be ‘strengthened and enhanced’ by the CMA, and the WIM’s own ‘functions’, in any event, were never a closed set.

There is now a need for the WIM to play an active role in helping policy makers better quantify the impacts and scale of loss and damage that is experienced and projected from human-induced climate change in different regions and in different national contexts, over different time frames and at different emission


\textsuperscript{126} See <https://serdp-estcp.org/Program-Areas/Resource-Conservation-and-Climate-Change/Climate-Change/Vulnerability-and-Impact-Assessment/RC-2334>. These research projects focus on the Republic of the Marshall Islands – where the US has a number of military installations – but have broad application to other Pacific atolls. These studies are looking at the timing, frequency and spatial impact of sea-level rise and storm-wave inundation in the future, and tipping points under which infrastructure and freshwater supplies may be threatened. See also <http://walrus.wr.usgs.gov/climate-change/atolls/news.html>; C.D. Storlazzi, E.P.L. Elias and P. Berkowitz, ‘Many Atolls May Be Uninhabitable within Decades Due to Climate Change’, S Scientific Reports (2015), 14546.

\textsuperscript{127} P.A. Stott et al., ‘Attribution of Extreme Weather and Climate-Related Events’, 7 WIREs Climate Change (2016), 23.

\textsuperscript{128} See, e.g., B.H. Strauss et al., Unnatural Coastal Floods: Sea Level Rise and the Human Fingerprint on U.S. Floods Since 1950 (Climate Central, 2016), at 1–16.


\textsuperscript{131} See generally R. Lefebre, An Inconvenient Responsibility (Eleven, 2009).

\textsuperscript{132} See n. 44 above.
pathways, sharing developments in event attribution science, and working with technical experts and policy makers to design and tailor approaches to address loss and damage that are suited to assisting the most vulnerable.

Systems can be put into place under the WIM in the nature of ‘cooperation and facilitation’ without present fear of compensation and liability, recognizing the existing commitments of developed countries under the Convention to support mitigation and adaptation and to enhance support to address loss and damage. With respect to displacement, the WIM and the appointed task force could draw out approaches which will overlap with issues of refugee law, expropriation and re-settlement methodologies. This is inevitable work which cannot be done by parties individually. There will also be a need for technical and academic support, which is evident from the informal interdisciplinary network of scientists on loss and damage that is gradually emerging. Legal questions will continue to arise as well. In sum, regardless of the ‘willingness’ of parties to engage, the issue of climate damage will remain squarely on the political agenda.

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