



# THINKING OUTSIDE THE BOAT ABOUT CLIMATE CHANGE LOSS AND DAMAGE:

**Innovative Insurance, Financial and Institutional  
Mechanisms to Address Climate Harm Beyond the  
Limits of Adaptation**

March 16-17, 2016  
Washington, DC

INTERNATIONAL WORKSHOP REPORT





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## Innovative Insurance, Financial and Institutional Mechanisms to Address Climate Harm Beyond the Limits of Adaptation

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## ABOUT THE INTERNATIONAL LAW RESEARCH PROGRAM

The International Law Research Program (ILRP) at CIGI is an integrated multidisciplinary research program that provides leading academics, government and private sector legal experts, as well as students from Canada and abroad, with the opportunity to contribute to advancements in international law.

The ILRP strives to be the world's leading international law research program, with recognized impact on how international law is brought to bear on significant global issues. The program's mission is to connect knowledge, policy and practice to build the international law framework — the globalized rule of law — to support international governance of the future. Its founding belief is that better international governance, including a strengthened international law framework, can improve the lives of people everywhere, increase prosperity, ensure global sustainability, address inequality, safeguard human rights and promote a more secure world.

The ILRP will focus on the areas of international law that are most important to global innovation, prosperity and sustainability: international economic law, international intellectual property law and international environmental law.

## ABOUT THE AUTHORS

This workshop report was prepared by **David Estrin**, CIGI senior research fellow, and **Sue Vern Tan**, CIGI research assistant, with significant contributions from the co-organizers of the workshop: **Roger-Mark De Souza**, director of Population, Environmental Security, and Resilience, Wilson Center; **Daniel Osgood**, lead scientist, Financial Instruments Sector Team, International Research Institute; **Melody Braun**, research staff associate, Financial Instruments Sector Team, IRI; **Saleemul Huq**, director of the International Centre for Climate Change and Development (ICCCAD); **Masroora Haque**, communications coordinator, ICCCAD; and **Dominique Souris**.

## ACRONYMS

ARC	African Risk Capacity
CCRIF	Caribbean Catastrophe Risk Insurance Facility
COP	Conference of the Parties
DFIs	development finance institutions
GCF	Green Climate Fund
IDA	International Development Association
L&D	loss and damage
NELD	non-economic loss and damage
NGOs	non-governmental organizations
SCF	Standing Committee on Finance
SIDS	small island developing states
UNFCCC	United Nations Framework Convention on Climate Change
WIM	Warsaw International Mechanism
WIM ExCom	Executive Committee of the Warsaw International Mechanism
XCF	Extreme Climate Facility

## EXECUTIVE SUMMARY

A two-day workshop brought together 30 individuals representing the following stakeholder groups: insurance industry, governments and intergovernmental organizations, international development banks and financial institutions, non-governmental organizations (NGOs), research and think tank organizations, as well as academics, to explore the role and limitations of insurance, existing international funds and other innovative concepts to address catastrophic as well as slow-onset climate-related loss and damage (L&D).

Four broad conclusions emerged from the discussions that took place during the workshop.

- Insurance is not a silver bullet. Insurance can be effective in providing not only risk transfer but also risk assessment and risk-management solutions. Nevertheless, it must be coupled with other measures that can help in building resilience.
- Insurance solutions are only viable if parties are capable of paying the premiums. Whether insurance should be subsidized remains a critical issue. Innovative “insurance for work” strategies (such as Oxfam and the World Food Programme) are one way to ensure accessibility to insurance. Nevertheless, from a climate justice perspective, those responsible for contributing to climate change should also contribute toward the premiums. Even at the sovereign level, the payment of insurance premiums for regional risk pools on a continuing basis could be a potential issue affecting the sustainability of these programs as governments face competing financial priorities (such as health and education) in their national budgets.
- Strong regulatory frameworks are necessary to encourage the flow of private sector financing and the establishment of primary insurance markets. Development finance institutions (DFIs) could play a significant role in providing access to finance and in removing barriers to private investment by pioneering approaches that can bridge gaps and incentivize private investment.
- Greater clarity is needed as to how L&D will be financed in the context of climate funds. There are currently 26 climate funds, six of which are dedicated to adaptation, but none on L&D. Greater guidance on climate finance, including L&D financing at the Twenty-second Conference of the Parties (COP) later this year, would help greatly in moving the discussion forward. The Warsaw International Mechanism (WIM) could provide leadership in helping to determine whether a separate fund for L&D is necessary.

## INTRODUCTION

The International Law Research Program (ILRP) of the Centre for International Governance Innovation (CIGI), in

collaboration with the Woodrow Wilson Center, International Research Institute for Climate and Society (IRI, Columbia University), and the International Centre for Climate Change and Development (ICCCAD) held a two-day workshop, “Exploring and Expanding the Innovative Role of Insurance and Other Financial and Institutional Mechanisms in Addressing Climate Related Loss and Damage,” on March 16-17, 2016. The workshop was held at the Wilson Center in Washington, DC, with participation from 30 individuals representing the following stakeholder groups: insurance industry, governments and intergovernmental organizations, international development banks and financial institutions, non-governmental organizations, research and think tank organizations as well as academics.<sup>1</sup> The workshop, which was exploratory in nature, was aimed at developing innovative ideas for submission to the United Nations Framework Convention on Climate Change (UNFCCC) Standing Committee on Finance (SCF) and the Executive Committee of the Warsaw International Mechanism for Loss and Damage (WIM ExCom). Overall, the discussions were centred on the current role and limitations of insurance and existing international funds in relation to catastrophic as well as, climate-related L&D. Innovative concepts for the use of insurance and other financial instruments were discussed, along with new forms of institutional mechanisms to alleviate climate change impacts and build climate resilience among vulnerable communities.

## THE ROLE OF INSURANCE, ITS LIMITATIONS AND FUTURE REQUIRED INNOVATION

### The Role of Insurance in Encouraging Strong Adaptation Measures to Increase Resilience

The reinsurance business as a global risk taker enables reinsurers to provide risk transfer solutions (i.e., taking the risks that policy holders do not want to bear, in exchange for a premium) as well as expertise in risk reduction and risk-management solutions.

Insurance can also provide the incentive for risk reduction and risk prevention through its risk-pricing mechanism, for example, by setting lower premiums to reflect the lower levels of risk after successful risk-reduction activities.

Both the reinsurance and primary insurance industry are generally ready to engage to provide insurance solutions, but currently face a lack of demand. This is notably the case in developing countries, where the uptake of market solutions is

<sup>1</sup> The workshop was conducted under the Chatham House Rule. Under this protocol, those present, including media, “are free to use the information received, but neither the identity nor the affiliation of the speaker(s), nor that of any other participant, may be revealed.” For a full explanation of the Chatham House Rule, see: [www.chathamhouse.org/about-us/chathamhouserule](http://www.chathamhouse.org/about-us/chathamhouserule).

especially difficult, since there needs to be an ability to pay for insurance that is commensurate with the level of risk (otherwise it would be a losing proposition for insurance companies).

Insurance solutions are market solutions and the availability of insurance necessarily depends on people who can afford and are willing to pay for the product, in particular if they are risk averse. The “lack of demand” challenge identified by participants from the insurance industry is more of an issue of affordability (i.e., the inability of vulnerable populations to pay for insurance premiums) as opposed to a lack of demand per se.

Lack of demand for insurance solutions in developing countries is also due to the fact that micro-insurance projects have not yet reached large scale in these countries. Key factors influencing this include project logistical constraints and end-client demand.

In fact, while the take-up rate for index insurance among farmers in developing countries may seem low, relative to the take-up rates of many non-subsidized and voluntary insurance policies in developed countries such as the United States, there tends to be a greater demand in developing countries. This demand often exceeds project logistical capacity.<sup>2</sup> Hence, it is important to address how to reach the client, scale data systems and related issues.

Many other projects must address lack of client demand through improvement of insurance products, integration with other tools, developing systems to produce products that unlock farm productivity, education, building trust, etc.

Properly designed, insurance should also play a role in enabling vulnerable communities to take the right risks that would help them to increase and sustain the profitability or productivity of their livelihoods over time. Insurance should be provided in the context of a comprehensive approach that addresses the needs of the population in question. This would necessarily require insurance products to be designed in a participatory process, as participation is key to ensure that the design meets the needs of the population in question. “Wrap around” interventions (for example, farming techniques, climate information services, microfinance, gender equality, nutrition, etc.) ensure that a program is also addressing access to resources (financial, information or physical) and barriers (for example, gender inequality). As such, community participation in the process of assessing and addressing risk is a critical component in design discussions.

Insurance can be coupled with other financial instruments, including the following examples, to improve climate resilience.

- **Resilience bonds:** This innovative concept was suggested as a measure that could combine insurance and infrastructure financing bonds. The resilience bond would provide the funding for the construction of protective infrastructure. The trigger for the bond payments would be based on an index (for example, an index based on storm surge, where payouts are triggered if the storm surge height exceeds a certain threshold). It is envisaged that the premium payments would be relatively high in the initial years to reflect the risk profile. However, as protective infrastructures are set up over time, thereby reducing the risk (for example, flood barriers in the case of a flood-based index), the premium pricing would fall to reflect the lower risk profile. This concept illustrates the potential for financial instruments to avoid further L&D while making insurance more affordable.

- **R4 Rural Initiative by Oxfam and the World Food Programme:** Under this program, index-based agricultural insurance has been coupled with other tools, such as credit and savings programs, to increase resilience.

## Challenges and Limitations of Insurance-based Solutions

### Numerous Immediate Challenges

Participants from the insurance industry suggested dealing with immediate challenges in the following areas:

- **Lack of demand:** At the global level, there is more reinsurance available than can be absorbed by existing demand. The ability or willingness to pay for insurance products must be addressed.
- **Weak enabling governance environments:** There is a lack of strong national policies and enabling regulatory environments that lend themselves to the creation of viable primary insurance markets.
- **Long time frames:** The development of insurance solutions for L&D involves long time frames. These are a challenge for both the public and private sector; the public sector is often interested in seeing quick results and the private sector tends to be driven by short-term profitability. Insurance for L&D is needed not only for short-term benefits but also for longer-term benefits.
- **Limited public sector involvement:** The need for greater public sector involvement in terms of providing access to data is necessary for insurance companies to be able to “get the risk right.”
- **Little community engagement:** There is a need for community participation to ensure that the insurance product answers local needs, which on the other hand constitutes a challenge for scaling.

<sup>2</sup> See Helen Greatrex, James Hansen, Samantha Garvin, Rahel Diro, Sari Blakeley, Margot Le Guen, Kolli Rao and Daniel Osgood, “Scaling up index insurance for smallholder farmers: Recent evidence and insights,” CGIAR Research Program on Climate Change, Agriculture and Food Security (2015), online: <[www.reliefweb.int/sites/reliefweb.int/files/resources/CCAFS\\_Report14.pdf](http://www.reliefweb.int/sites/reliefweb.int/files/resources/CCAFS_Report14.pdf)> at 22.

## Addressing Slow-onset Events

**A tool for adaptation:** Insurance currently does not directly address losses associated with slow-onset events such as sea level rise or desertification, including loss of livelihoods, land or cultural heritage, but is more of a tool to help unlock adaptation strategies and assist in coping with related shorter-term L&D events.

**Long-term time frame:** Slow-onset events are a major challenge, given that this would necessarily involve long-term insurance policies, which are in limited demand because they require long-term premium payments. While designing an insurance policy to cover slow-onset events is possible, the requirement for long-term premium payments could render this solution very costly.

**Other insurance classes:** Other classes of insurance that could be used as inspiration for future innovation include, most notably, life insurance (insuring a certain event within an uncertain time frame) and health insurance (an insurance product that does not identify the specific peril). These are long-term policies and, as such, while a product could potentially be designed, the party engaged needs to be able to pay for the premiums over the long term while understanding that the payout will not necessarily be triggered. It should be noted that even in the context of regional risk pools, there is already a challenge in getting continuous buy-in from governments where there has been a lack of payout.

**Beyond insurance:** Slow-onset events, such as desertification and sea level rise, will not always be insurable and will render some livelihoods non-viable. Hence, there must be discussions beyond insurance on what can be done to assist populations that are impacted by these events to transition to long-term, sustainable livelihoods in the face of climate change.

## Affordability of Premiums: Who Should Pay?

The sustainability of an insurance-based solution is usually contingent on the continuous payment of premiums.<sup>3</sup> As such, affordability of insurance premiums and who should pay were much discussed.

**Premium subsidies:** Participants in the insurance industry cautioned against the provision of premium subsidies by governments, highlighting the debts incurred by the government under the US National Flood Insurance Program following Hurricane Katrina and Hurricane Sandy. Subsidizing premiums can give rise to the risk of moral hazard (i.e., where the insured does not engage in risk-reduction activity because there is no incentive to do so).

However, it was recognized that the situation in developing countries is very different and it is doubtful that insurance

would ever be affordable in the absence of some degree of financial assistance.

**Public infrastructure:** It was also suggested that rather than subsidizing premiums, the money could be better spent on investing in the public infrastructure necessary for the provision of insurance (for example, weather gauges, satellites and enabling public access to data). In order to be sustainable, index insurance requires operational data systems, and operational staff with low turnover to support the product. Prior to considering the use of donor or government resources into premium subsidies, it was suggested these resources should be focused on making sure the operational services and teams are in place and are sustainably funded.

**Public-private partnerships:** As insurance is less accessible for the most vulnerable populations, insurance products most likely will need to be supported by public-private partnerships.

**Climate justice:** Even if insurance is accessible, considerations of climate justice with regard to requiring vulnerable populations to pay for premiums to insure against climate change events, which they are least responsible for, would have to be taken into account. This could make the discussion more challenging.

**Stakeholder engagement:** There needs to be engagement of all parties involved. While the insurance industry is able to develop tailored risk solutions, there has to be long-term engagement from the parties. As such, it is necessary to engage with the relevant stakeholders such as sovereign states, individuals, or international funds to determine how the cost of insurance can be financed in the long run. For example, it was observed that some cooperatives in the Philippines that provide insurance to meet the needs of individuals have experienced difficulties in paying premiums without access to international donor or funding money. However, in Ethiopia, because of investments in infrastructure and a holistic, productivity-based approach to insurance, solutions have been found in which low-income farmers are able to pay for unsubsidized insurance products either through “insurance for work” programs or by cash.

**International funding:** For low-income individuals, international funding solutions are necessary to enable access to insurance products, with careful consideration about how the funding is used.

## Observations, Recommendations and Unresolved Issues

**Insurance and other solutions:** Insurance is not a silver bullet. It forms part of the solution and has to be coupled with other measures.

**When is insurance appropriate?** An assessment of whether insurance should form part of the package for the solution for any given risk relating to L&D has to be made. If the risks

<sup>3</sup> There can be a front-end loaded premium payment, but this is exceptional.

could be reduced in an economically feasible manner through other measures, insurance should not be relied upon. For example, in the context of agriculture, where irrigation could assist in drought management and is economically feasible, insurance should not be used to cover those risks.

**Who is insured?** Insurance for individuals may be more appropriate in increasing resiliency, while insurance at a sovereign level may have greater efficiency in risk transfer for large-scale disasters.

**Shared costs:** From a climate justice perspective, the most vulnerable should not be made to pay the cost of coping with impacts of climate change caused by industrialized countries. However, as a matter of practicality, given that the impacts of climate change are already evident and affecting these communities, interim solutions to empower vulnerable communities to adapt and cope are necessary. Joint ownership of solutions is necessary for transformative change, which most likely involves some shared costs. It is therefore critical that the net benefit to the most vulnerable from these efforts greatly exceed the costs they pay, including premiums.

**Insuring the most vulnerable:** There needs to be further discussion on how insurance can be provided to more of the world's most vulnerable and those typically cut off from financial products. This can be achieved through greater public-private sector cooperation. In this regard, it would also help to look at how developed countries have approached providing insurance coverage to vulnerable communities. Alternatively, an examination of solutions other than insurance for vulnerable populations living in extreme poverty may also be useful. For example, microsavings programs have the ability to not only connect poor populations to financial systems but also build social capital, which is important in building resilience.

**Risk quantification:** Insurance can smooth the volatility of L&D, but it only provides a means for compensation if some other agency pays the premium. Insurance must be viewed as part of a broader process of risk quantification, where the first step would be to explore how to optimize risk reduction with insurance stepping in at the end of the process to address residual risks that cannot be readily reduced.

**Further analysis:** There should be continued studies and attempts to quantify the current cost of L&D as well as the expected cost in the future, and the benefits in terms of reducing L&D as a result of greater investment in adaptation.

## LESSONS FROM RECENT INSURANCE INITIATIVES: REGIONAL RISK POOLS AND AGRICULTURAL INDEX INSURANCE

### Regional Risk Pools

The African Risk Capacity (ARC) and the Caribbean Catastrophe Risk Insurance Facility (CCRIF) are sovereign-level parametric insurance schemes.<sup>4</sup> The ARC currently provides coverage for drought and will this year be launching a product to cover tropical cyclones. It is also envisaging the launch of a flood model in 2017. The CCRIF currently provides coverage for risks such as earthquakes, hurricanes and excess rainfall.

One of the advantages of parametric insurance is that it removes the loss adjustment process on the ground. This improves transparency as well as the cost-efficiency of loss adjustment. It was observed that international risk markets, including capital markets, are more willing to accept parametric risks.

### Capitalizing Risk Pools, and Challenges Related to the Payment of Premiums

**Capitalization:** With regard to premium financing and capitalization, it was noted that the CCRIF was capitalized through donor grants while the ARC was capitalized through a 20-year, interest-free loan. In designing regional risk pools for other regions, or even a possible global facility, this is an issue that would require further examination, i.e., whether these initiatives should be financed based on grants or loans.

**Self-financing:** At present, all seven countries in the ARC program are self-financing the premiums from their national budgets. However, questions were raised in the discussion about whether this would be sustainable for all potential member countries in the long run. As such, the use of international development financing is being considered to cover a portion of premiums for a limited period. Premiums under the CCRIF are also paid by member countries. In the early phase of the CCRIF, International Development Association (IDA) funding was used to pay for the premiums. However, CCRIF member countries have been paying the premiums since IDA funds were exhausted.<sup>5</sup>

4 Unlike indemnity-based insurance policies, payouts under parametric insurance policies are linked to a triggering event based on predefined parameters. For example, in a typical drought parametric insurance scheme, payouts are triggered when rainfall deviation (i.e., excessive or insufficient rainfall) exceeds a certain threshold. Parametric insurance is also known as "index-based" insurance.

5 Haiti receives grant assistance to meet its insurance premiums under the CCRIF.

**Sustainability:** Notwithstanding the reasonable level of premiums that countries pay under the CCRIF and ARC, from a budgetary perspective, there have been difficulties in obtaining buy-in or getting continuous support from countries where there have been few or no payouts.

As sustainability of these programs is an important issue, further discussion on how governments from developing countries can receive support in paying these premiums is necessary. There is a likelihood of developing countries with fragile economies falling out of the program, in particular where there are other critical needs for funding, such as health and education. A concern was raised that regional risk pools may be seen as an excuse for donors to cut back on financial aid especially in light of the additional impacts caused by climate change. Particular attention may need to be given to donors so that they appreciate the need to continue supplementing premiums to assist in managing the additional burden posed by climate change.

**Basis risk:** The parametric nature of these schemes means that risk-reduction measures do not have a direct impact on premium pricing. Related to this is the issue of basis risk, i.e., where proceeds from payouts do not match actual losses on the ground.<sup>6</sup> One participant shared that African Risk View, the software platform used to design the parametric triggers, has proven to be sufficiently robust and that the law of large numbers helps mitigate basis risk at the sovereign level.<sup>7</sup>

**Benefits to countries:** Countries that undertake risk reduction activities to increase resilience are able to benefit more from the proceeds of a payout, due to the reduced losses on the ground.

## Effectiveness of Regional Risk Pools

As regional risk pools are sovereign-level insurance schemes, individuals do not receive payouts directly. Nevertheless, under the ARC, payouts are linked to a country's contingency plan that has been pre-agreed and precertified through a peer review mechanism, as a means of inserting a community- and individual-focused aspect into the design. This is a design feature that is unique to the ARC, as the CCRIF does not oversee the use of funds from payouts. The ARC has published

standards and guidelines on its website to assist countries in developing a contingency plan.<sup>8</sup>

For the CCRIF, this requirement was excluded in order to attract greater buy-in, as some countries were reluctant to have this design option in place given that they were paying for the premiums. An example where ARC payouts have had an impact at a community level is Kenya's Hunger Safety Net Programme.

Contingency plans under the ARC are certified for a period of two years, after which countries are required to review their contingency plans for recertification. Non-compliance with these standards and guidelines would result in disqualification for renewal.

Both the ARC and CCRIF are set up with early-warning systems in place. An independent cost-benefit analysis commissioned by the ARC has shown that every dollar spent on ARC is worth \$4.4 of traditional humanitarian response.<sup>9</sup> In addition, regional risk pools have the advantage of providing quick disbursement of finances in the face of a natural disaster. Traditional humanitarian response time is typically six to nine months, whereas ARC requires the implementation of payouts within three months and completion by six months.

Regional risk pools have the ability to work with governments to assist in building risk-management capacity and provide knowledge on risk quantification and risk-management tools. Hence, regional risk pools were seen not only as providers of sovereign-level insurance coverage but also as catalysts in exploring insurance products at the individual level.

## Lessons Learned and Future Opportunities

**Adaptation funding:** To cope with the longer-term impacts of climate change, the ARC has developed the Extreme Climate Facility (XCF) to provide adaptation funding. The XCF is a parametric facility based on an extreme climate index with a five-year window. Trigger-levels are based on whether the severity of magnitude or frequency of extreme events have exceeded levels beyond the norm. This was presented as an innovative way of targeting adaptation funding in a manner complementary to the insurance program.

**Initial donor support:** The 2015 Paris Climate Agreement has generated donor support for regional risk pools, but this was only to cover the relatively modest costs of operations and

<sup>6</sup> For example, if the insured amount is set at \$200 million for a triggering event, but actual losses are valued at \$300 million, the losses exceed the payout under the insurance policy. Basis risk also covers the situation where actual losses are below the insured amount. For example, if losses were valued at \$100 million, countries would gain from the \$200 million payouts.

<sup>7</sup> The law of large numbers is a statistical principle often used by insurers in estimating future losses. Risk pooling provides for a greater sample size of risk exposures, thereby allowing insurers to predict future losses with greater confidence.

<sup>8</sup> See online: <[www.africanriskcapacity.org/issues/contingency-planning](http://www.africanriskcapacity.org/issues/contingency-planning)> for standards and guidelines. Examples of activities eligible for funding from ARC payouts include: cash transfers, targeted food distribution and food safety net programs. See Annex I, online: <[www.africanriskcapacity.org/documents/350251/389546/Operations+Plans+Standards+and+Guidelines+EN.pdf](http://www.africanriskcapacity.org/documents/350251/389546/Operations+Plans+Standards+and+Guidelines+EN.pdf)>.

<sup>9</sup> The cost-benefit analysis was limited to the study of drought risks.

to provide risk capital (in the form of loans) in the case of the ARC.<sup>10</sup>

**Feasibility in Asia:** While there are doubts as to the feasibility of introducing a regional risk pool in Asia, given the similarities in risks faced by Asian countries, preliminary work is being carried out to identify the hazards that might be covered in Asia. The World Bank and Asian Development Bank have also been working with individual countries to access the international markets for better risk pricing.

**Humanitarian financing:** A global risk facility could be a vehicle for more efficient humanitarian financing by the international community, bringing together contingency planning, rapid effective action and responsive financing. However, doubts remain as to whether there is a need for a global facility as of yet. Additionally, the challenge of all countries having the ability to pay premiums is a barrier to scaling up existing regional risk pools.

## Agricultural Index Insurance

Index-based insurance is also used in the context of agriculture. Unlike traditional indemnity-based insurance, payouts from agricultural index insurance are not directly linked to crop losses. Instead, payouts are based on weather-related triggers or factors affecting crop yields (for example, rainfall and soil moisture). Agricultural index-based insurance operates at the individual and community level, in contrast with regional risk pools, which operate on the sovereign level.

## Benefits and Advantages of Agricultural Index-based Insurance

Payouts under traditional indemnity insurance are based on the difference between the projected and actual crop yields in the insured period. This involves an on-the-ground loss-review process, which can be costly. Moreover, this also creates a moral hazard where farmers have the incentive to allow their crops to die in order to receive a loss payout. Index insurance removes the loss adjustment process and the potential moral hazard associated with traditional indemnity-based agricultural insurance.

In order for index-based agricultural insurance to succeed, a participatory process with communities, financial institutions, cooperatives and development donors is necessary. Setting up the necessary framework to support these processes is required and can assist in scaling up these projects to extend the provision of insurance to a larger population.

An example of how index-based agricultural insurance has helped vulnerable communities is the R4 Rural Resilience Initiative by Oxfam and the World Food Programme. As part

of this initiative, it was observed that the coping approach was greater for an insured farmer versus an uninsured farmer. Insured farmers resorted to selling assets such as cattle in order to survive, whereas uninsured farmers simply ate less. Nevertheless, it must be recognized that while the coping strategies of farmers under the program improved, farmers were still at risk of falling into the poverty trap when they sold their assets to survive.

It was acknowledged that agriculture is a sector with a high tendency for “rent seeking.”<sup>11</sup> Index insurance itself may help address rent seeking by more strongly formalizing government responses, but there are strong incentives for agricultural stakeholders to utilize insurance to expand rent seeking. Great care must therefore be taken to develop projects that address rent-seeking problems as opposed to exacerbating them.

## Caveats and Challenges Associated with Agricultural Index-based Insurance

Agricultural index-based insurance is a partial solution and should be implemented as part of an integrated and comprehensive risk-management strategy.

Index-based agricultural insurance can form a partial solution at the micro-level. In the event of a disaster, vulnerable communities would still require disaster assistance from governments and international donors. The existence of an index insurance program can assist farmers to rebound more quickly, and avoid falling back into poverty following a disaster. Index insurance should not, however, be regarded as the only solution.

While premium affordability can be an issue, there are innovative options, such as the ones introduced in the R4 Rural Resilience Initiative, although donor funding supports this program. In this regard, there should be discussions on the role that international funds, such as the Green Climate Fund (GCF), could play in supporting these schemes and, subsequently, how these organizations can obtain accreditation to access GCF funding.

It was observed that there is a willingness among farmers to pay for insurance products, as long as it can be demonstrated that insurance is able to unlock more money than its costs. To do this, it is essential that insurance is able to provide payouts in a manner that accurately matches the risks and premiums. However, there is also a need to ensure that in explaining insurance products to farmers, it is done in an honest and transparent manner so farmers understand the likelihood of getting a payout in accordance with the level of premiums. This may be a challenge, although not necessarily an insurmountable one.

<sup>10</sup> Following COP21, the United States, Germany, France and the United Kingdom earmarked a total of US\$150 million dollars for the African Risk Capacity.

<sup>11</sup> In the context of agriculture, rent-seeking behaviour typically involves farmers lobbying the government for compensation for the loss of crop yield in a bad season.

Local participation in efforts to introduce insurance schemes at the community level, for example, having a local individual explain the mechanics of insurance to others in the community, can assist in not only ensuring effective communication of how insurance works but also increasing scale in terms of reaching more farmers.

Index-based insurance should be employed in an integrated approach with other mechanisms such as social safety nets, savings and disaster risk-reduction activities, with the goal of not only increasing resilience but also enabling vulnerable communities to move beyond poverty. This is especially important in the case of subsistence farmers who often do not have access to basic needs and, as such, the provision of insurance should not detract from ensuring that the basic needs of these individuals are met.

Insurance payouts from these programs do not cover all of the farmers' losses but can be sufficient in providing interim funds until international aid arrives.

### Subsidizing Premiums

The provision of premium subsidies should be carefully considered, since there may be other components, such as public infrastructure or technical expertise, that require funding to keep these insurance programs running.

Funding could be better used to overcome barriers to entry in emerging economies. For example, in low-income countries, there may be significant fixed costs in learning about market segments and understanding disaster risks. The use of subsidies in creating enabling environments or repackaging risks to suit the appetite of the reinsurance markets could be a more efficient and effective means of allocating resources as opposed to the direct provision of subsidies for premiums.

### Managing Basis Risk

Basis risk could also have potentially positive effects — for example, where farmers benefit from the difference in data collected and losses on the ground by planting crops with shorter growing seasons and using the payouts from insurance to purchase new seeds.

It is important to guard against mischaracterizing risk retention as basis risk (risk retention is the level of risk retained by the insured [uninsured] portion). In the context of agriculture, this may be managed through savings or informal social networks (for example, borrowing from relatives). As such, there is a need to ensure that farmers understand how insurance functions and that index-based crop-insurance products are not strongly correlated with yield. This relates to the earlier point on the importance of transparency and creating a participatory process.

The model of optimal capital allocation is one where frequent and less severe risks are retained by the insured and the more infrequent but extreme (high-loss) risks are transferred. The

introduction of insurance linked to a savings scheme was contemplated as a possible solution to address basis risk where savings could be used to cushion against losses not covered by insurance.

- Instead of directly subsidizing the premiums, money could be put toward a savings account, from which farmers could draw for less severe and more frequent risks. In the event that the parametric triggers are not met after an event, the savings provided would enable farmers to cope with such risks.
- More severe and less frequent events should be covered by insurance and reinsurance and these layers of risk should be insured and reinsured.
- The savings/insurance contract would be a three-year contract. At the end of the contract, the farmer could remove the savings or opt for a renewal.
- It was acknowledged, however, that there could be legal and regulatory challenges in setting up such a scheme.

### Future Considerations

Providing index-based insurance to vulnerable communities is not a panacea, as these communities often lack basic needs as well as protection against risks. There should be further discussions on other viable means for addressing L&D, in particular for vulnerable populations, taking into account that, for them, insurance is not and likely cannot be the only answer to L&D. Attention should also be given to how countries with these vulnerable populations can prepare for longer-term transitions to address L&D associated with slow-onset events.

Insurance has to be evaluated against a range of other tools and be implemented only when it makes sense. In design discussions, there are many strategies that can be used to employ index insurance but this must be done in a participatory manner involving communities and individuals as well as governments and development donors.

## FINANCING L&D: PUBLIC AND PRIVATE SOURCES OF FINANCE

### Public Sources of Finance

#### Implications of the Paris Agreement on Climate Finance

The Paris Agreement had a positive impact on climate finance and investments in that it generated greater interest in initiatives in support of climate change action, increased participation of non-state actors in the climate finance arena and provided clear signals on the move away from fossil fuels toward a low-carbon economy. For example, the World Bank pledged to increase climate financing by one-third (an

increase to 28 percent by 2020 from its current 21 percent), to potentially US\$29 billion annually.<sup>12</sup>

However, the Paris Agreement failed to provide funding clarity in terms of setting out precise timetables for scaling up financing. While the agreement lacks concrete financing provisions in relation to L&D, the word “support” under article 8, paragraph 3, could be read and understood as including finance, technology and capacity building.

### Funding for L&D: Potential Issues with Financing under the GCF

There are currently 26 climate funds, of which only six are focused on adaptation and none on L&D. The GCF has a clear mandate to balance mitigation and adaptation funding but lacks any direct mention of or language resembling L&D.

Even though the GCF does not provide funding for L&D, adaptation funding could have positive impacts for L&D in terms of climate-proofing activities or heightening climate resilience. Under the adaptation window, risk transfer is identified as one of the areas for GCF funding. This could potentially be applicable to the L&D discussions.

While funding for L&D could be addressed under the GCF, some countries, small island developing states (SIDS) in particular, may question doing so, as they have fought for L&D to be recognized as a standalone issue from adaptation. Moreover, addressing L&D financing from the GCF would stretch adaptation funds, which are currently significantly underfunded.

While there are overlaps with adaptation, L&D goes beyond adaptation and will require additional funding. Theoretically, L&D funding could flow from the GCF, given that the board retains the option to stipulate new funding windows. However, even if L&D were to be considered under the GCF, the current amount of funds pledged would have to be substantially larger.

Addressing L&D would need much larger resources than what is currently available under the GCF (US\$10.3 billion has currently been pledged, although not all of that amount has materialized as actual contributions). The GCF also lacks predictable funding. It is likely that a contribution assessment is necessary and there would be a need to move beyond the voluntary contribution system.

Discussions on financing L&D should focus on addressing practical questions, but there will be political aspects underlying practical questions, including what support for L&D would look like and why additional financing is

necessary. Greater guidance on climate finance, including in relation to L&D financing at COP22 later this year, would greatly help move the discussion forward. In addition, the role of loans versus grant-based public financing should also be discussed, given that grant financing has an important role to play in assisting vulnerable countries. On this note, it was highlighted that SIDS are currently advocating for GCF funding to be provided in the form of grants as opposed to a combination of loans and grants.

### Private Sources of Finance

Given that L&D has only recently been formally recognized as a standalone issue, there is a lack of information in terms of tracking private investment in this area. In fact, it was recognized that there have been difficulties in tracking private investments beyond renewable energy with regard to adaptation financing, due to the lack of information sources and availability of data. As such, this would likely bear the same implications in tracking private finance for L&D in the future.

### The Role of DFIs in Mobilizing Private sector Financing

A recent study conducted on the role of DFIs<sup>13</sup> indicates that DFIs have the ability not only to provide access to finance in emerging economies but also to address some of the barriers to greater private sector investment in these economies.<sup>14</sup> DFIs have the ability to address the three barriers hindering private sector investment in emerging economies:

- The lack of robust regulatory environments. For example, price distortions resulting from certain policies and regulatory frameworks or unfavourable mandatory regulatory requirements could have the effect of discouraging private investment.
- Knowledge gaps, such as a lack of understanding of technological and financial instruments available to address issues faced.
- Revenue, access to finance and risk gaps, such as the lack of public sector funding for risks that the private sector is not able or ready to bear.

DFIs have the ability to pioneer a variety of approaches that can bridge gaps and incentivize greater involvement from the public sector. As public-private partnerships were consistently raised as a necessary component for addressing L&D in an effective and comprehensive manner, it was suggested that DFIs could play a key role in fostering these partnerships.

<sup>13</sup> Examples of DFIs include the International Finance Corporation and European Bank for Reconstruction and Development.

<sup>14</sup> See Chiara Trabacchi & Federico Mazza, “Emerging solutions to drive private investment in climate resilience” *Climate Policy Initiative* (June 2015) online: <[www.climatepolicyinitiative.org/wp-content/uploads/2015/06/Finance-for-Climate-Resilience.pdf](http://www.climatepolicyinitiative.org/wp-content/uploads/2015/06/Finance-for-Climate-Resilience.pdf)>.

<sup>12</sup> The World Bank released its Climate Change Action Plan on April 7, 2016. Online: <[www.worldbank.org/en/news/feature/2016/04/07/world-bank-group-sets-new-course-to-help-countries-meet-urgent-climate-challenges](http://www.worldbank.org/en/news/feature/2016/04/07/world-bank-group-sets-new-course-to-help-countries-meet-urgent-climate-challenges)>.

DFIs have also supported activities such as the carrying out of feasibility studies, consultation with stakeholders, providing technical advice and access to long-term financing, and designing risk-sharing mechanisms.<sup>15</sup> An example of an initiative with a public-private partnership is the Global Innovation Lab for Public Finance. This initiative is made up of 22 lab members from the public and private sectors and is aimed at developing financial tools and instruments to unlock private investment in developing countries.

### Market-based Financial Instruments: What Types of Bonds Are Currently Available?

- **Green bonds** (a debt-security instrument issued for the purposes of raising capital specifically for climate-related or green projects). It was generally recognized that green bonds have a role to play in reducing L&D through investment in adaptation measures but have less relevance for losses and damage that adaptation cannot prevent. Green bonds have the ability to provide funding for green or climate-related projects prior to an event. There has been an increased interest in the green bond space by insurance companies as institutional investors. In this role, the insurance industry has a huge potential to assist by financing climate adaptation and resilience-building activities. Since 2008, the World Bank has been issuing green bonds. Investors that purchase green bonds from the World Bank are able to benefit from the triple-A rating of the World Bank.
- **Catastrophe bonds** (risk-linked securities that transfer a specified set of risks from a sponsor to investors). The catastrophe bond market has been growing for about 15 years and has been thriving in transferring risks to the international capital markets. The success of catastrophe bonds is linked to effective catastrophe modelling. The advantage associated with catastrophe bonds lies in the fact that they are able to disburse money quickly in the event of a catastrophe. However, a participant with experience in structuring catastrophe transactions noted that these transactions can be difficult to set up as countries often seek longer-term protection whereas investors tend to prefer shorter-term bonds. In 2014, the World Bank issued a catastrophe bond linked to earthquake and tropical cyclone risk in the Caribbean under its Capital-at-Risk Notes Program.

### Ongoing Development of Innovative Bonds and Future Possibilities

**Blue bonds:** The World Bank and African Development Bank are currently working with the Seychelles on the possibility of issuing blue bonds as part of an initiative to deal with the impacts of climate change on oceans and the marine environment. Similar to green bonds, blue bonds are issued to

raise funds for the development of sustainable fisheries. For example, the capital raised through the issuance of blue bonds in the Seychelles would be linked to a fisheries-management plan to develop the country's fishing sector.

- **Forest Resilience Bond:** This bond is currently being developed in the United States by Blue Forest Conservation and the Rockefeller Foundation to raise funds to finance forest restoration activities that will reduce the intensity and frequency of wildfires.<sup>16</sup>
- **Attribution bonds:** This concept was first introduced in 2003 during a UNFCCC insurance workshop, but was not taken up then. This bond would cover the climate change component of the probability of a climate disaster (for example, in the event of a tropical storm that would have happened regardless of climate change, the bond would cover the increase in intensity and frequency caused by climate change). It was suggested that capability for such a bond is not yet fully developed, although there are possibilities for future development and there are parties working on this in Europe.
- **Sea level rise bonds:** Payout for these bonds is triggered in the event mean sea level exceeds a predetermined threshold. The index measure would be based on a series of official tide gauges.

While there has been extensive discussion and consideration of developing new bond-type financial instruments, it was emphasized that for any type of bond developed, it is important to ensure that the bonds are accurately linked to the types of projects being undertaken and provide the right incentives to stimulate effective climate action (for example, a green bond should be linked to a green or climate-related project).

### Observations and Areas for Future Action

There should be further intensive discussions to examine the feasibility of the financial instruments proposed and identify and refine details of these mechanisms to influence policy making. There is potential, in particular in countries where bond instruments and insurance initiatives are currently unavailable, for current investments and loans for mitigation, adaptation and risk-reduction activities from international financial institutions and DFIs to be extended to create enabling environments to support the introduction of market-based financial tools such as bonds. This should be explored further.

<sup>15</sup> See e.g. the Inter-American Development Bank's pilot program on Energy Savings Insurance introduced in Mexico.

<sup>16</sup> See online: <[www.rockefellerfoundation.org/blog/fighting-wildfire-with-finance/](http://www.rockefellerfoundation.org/blog/fighting-wildfire-with-finance/)>.

## CONSIDERING NEW GOVERNANCE, INSTITUTIONAL MECHANISMS AND LEGAL PRINCIPLES

### L&D and the WIM under the Paris Agreement

Following from the Paris Agreement, L&D is not aimed at assigning liability and obtaining compensation but rather at addressing the existential threat of unavoidable harm from climate change, in particular for vulnerable countries such as SIDS. After Paris, the WIM is clearly not in any way involved with notions of compensation or liability; rather, it has a clear mandate, provided by the 195 parties who adopted the Paris Agreement, to enable the taking of appropriate measures to address climate harm that cannot be prevented.

For operational purposes, it was suggested that the WIM should consider whether article 7.3 of the Paris Agreement, which recognizes the adaptation efforts of countries, could establish a baseline to measure L&D as being that which occurs beyond adaptation. The WIM should attempt to look into processes and methodologies that could provide a baseline for L&D.

### Strengthening Action for L&D Beyond the UNFCCC Process

#### Climate Litigation

Further measures beyond the UNFCCC regime are critical in creating the motivation for countries to engage in serious negotiations and the private sector to take a role in funding L&D measures. While litigating liability for climate change damages on a case-by-case basis is not an adequate solution, it is a tool that can be used to clarify liability risks that in turn may persuade developed countries to more seriously commit to mitigation ambitions or provide for compensation and potentially obtain private sector participation.

There have been recent developments in domestic climate litigation. This is now an evolving field where concepts and principles employed in courts of one country are having effects in courts of other countries. For example, the *Urgenda* decision in the Netherlands acted as an impetus for several other cases, including the proposed case in Norway against Arctic drilling, the lawsuit by a Peruvian homeowner against German utility company RWE, and the petition in Philippines to the Human Rights Commission involving 50 “carbon majors.”

While there are still numerous issues from a litigation perspective that have yet to be resolved (for example, questions on a duty of care, the standard of care, the effect of recent agreements, and causation), a comparison to the tobacco industry was made, where the huge costs to governments of responding to tobacco-related public health care ultimately led

to government-initiated litigation and special amendments to tort law to ensure that the tobacco sector would bear a significant proportion of these costs.

### Other Possible Innovative Mechanisms

**Carbon Levy Project:** A fossil fuel extraction levy, modelled on the International Oil Pollution Compensation Fund, could be introduced to raise funds for L&D activities.

**International Air Passenger Adaptation Levy:** This levy is modelled after the successful UNITAID air ticket levy that raises approximately US\$20 million per year for HIV, AIDS, malaria and tuberculosis. This proposal was initially introduced to raise funds for adaptation but was not adopted. It was suggested that this could be re-examined as a means of raising funds for L&D.

**Robin Hood Tax:** A financial transaction tax in which funds raised are committed to L&D.

**Bunkers Levy:** A levy on the marine and aviation industries.

It was also recognized that other L&D issues under the WIM’s Action Areas, such as climate displacement, would require “out of the box” ideas for fundraising.

### Legal and Regulatory Measures to Encourage Investment in Climate-development Projects or Insurance Markets

There is a need for strong regulatory frameworks that would provide an enabling environment for private sector investments. The primary insurance sector is able to provide insurance solutions at the individual level in developing economies. However, this would require a robust regulatory environment, without which it would be difficult for the private sector to provide reasonable risk-transfer solutions.

Strong regulatory frameworks must be present in developing countries providing a mechanism for subsidized premiums to ensure that subsidies are used efficiently, equitably and transparently. Private investors are generally reluctant to invest in unstable environments. While a strong legal and regulatory environment can assist this, DFIs could mitigate the risks taken by private investors. For example, the Overseas Private Investment Corporation has been providing political risk insurance for projects in developing countries to encourage private investors to invest in these environments.

## NEXT STEPS

### Further Dialogue Is Needed

There should be further workshops that bring together insurers and vulnerable communities, to deepen understanding of the kinds of insurance and other financial tools that can meet the needs of these populations. Insurance should not be viewed

merely as a financial tool, but as a discipline in that it is also able to assist in comprehending the landscape of risk and identifying ways to reduce risk.

## L&D Funds

Greater clarity is needed as to how L&D will be financed in the context of climate funds. No existing climate funds are dedicated to L&D. The WIM and SCF should consider the options and basis for an L&D fund and could work toward identifying baselines as to what would constitute L&D, then bring these forward to a discussion of L&D funding at the SCF Forum and COP22 with other relevant stakeholders.

How L&D is differentiated from adaptation from an operational perspective is an unresolved question that would require further examination. The WIM and SCF could work with insurance companies to determine the costs of L&D. However, other relevant stakeholders, in particular those involved in quantifying non-economic L&D, must also be involved to ensure that the value arrived at reflects the true costs of L&D.

## Beyond Insurance

An examination of non-insurance tools is also necessary, given the limitations of insurance, in particular its apparent inability to directly address losses associated with slow-onset events or loss of livelihood, and in that certain forms of livelihood will become increasingly less viable due to slow-onset climate change impacts.

**Non-economic loss and damage (NELD) needs to be addressed:** While not extensively discussed, it was acknowledged that NELD also needs to be addressed. In developing countries, NELD could account for 50 percent of L&D. However, these losses are often neglected in data collected by governments after an event. Addressing NELD is important as part of the recovery process, in particular in developing countries, where there is strong reliance on informal social networks and support systems. In designing insurance and other financial tools, the inclusion of NELD must be considered.

**Engage international investment and private sector insurance:** There should be engagement with international investment funds and private sector insurance companies to discuss the possible further roles that these private sector industries could play.

**Financing of insurance solutions remains a key issue:** The question of who should/could pay remains largely unresolved. It was noted that payment does not necessarily mean direct subsidy of insurance premiums, but may mean financing the development of infrastructure, public goods, enabling products, education and coverage of large-scale disasters that

go beyond the scope of micro- or meso-level insurance.<sup>17</sup> While there were extensive discussions on how the existing funding for L&D is, for some, related to adaptation, it was recognized that this is both a political and practical question. The WIM should provide political and practical leadership to resolve this issue.

**The WIM can facilitate negotiated solutions:** There is a need for countries to come to a negotiated solution. In this context, it was suggested that the WIM can play an important role by developing the concept for an L&D finance facility separate from the GCF.

**Continue focus on innovative financing beyond insurance:** Given that the political atmosphere (i.e., whether, for operational purposes, funding for L&D is separate from adaptation) can pose difficulties in transitioning to realistic discussions on how L&D can be financed, there is a need for greater emphasis on the role of innovative sources of finance and private sector financing beyond insurance schemes.

**Support is needed from private sector philanthropists and foundations:** It was suggested that it would be helpful for targeted information to be provided to philanthropists and private foundations about L&D, in particular how it is different from adaptation and why the extent of such L&D will greatly increase, in order to interest them in being part of innovative solutions.

**Build on lessons identified in this report:** It is acknowledged that L&D is in its early stages. However, it is important to take into account the lessons learned from existing efforts, not only within the context of L&D, but in related areas such as disaster risk management and adaptation to inform future processes taken under the WIM.

<sup>17</sup> Micro-level index insurance provides coverage for individuals, whereas meso-level index insurance provides coverage for “risk aggregators” such as banks and microfinance institutions. See online: <[www.ifc.org/wps/wcm/connect/industry\\_ext\\_content/ifc\\_external\\_corporate\\_site/industries/financial+markets/retail+finance/insurance/index+insurance+-+frequently+asked+questions](http://www.ifc.org/wps/wcm/connect/industry_ext_content/ifc_external_corporate_site/industries/financial+markets/retail+finance/insurance/index+insurance+-+frequently+asked+questions)>.

## WORKSHOP AGENDA

An invitation-only workshop being conducted under the Chatham House Rule

### March 16, 2016 (Day 1)

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8:00 – 9:00 a.m. — Breakfast & Registration

9:00 – 9:15 a.m. — Welcome Remarks & Introductions

9:15 – 9:25 a.m. — Setting the Stage: The Scope of Loss and Damage

9:25 – 11:05 a.m. — Session I: Role, Limitations and Potential of Insurance for Vulnerable Populations

**Part A (9:25 – 10:15 a.m.): Slow-onset event Loss and Damage; Non-economic losses; Availability and Limits of Insurance; Possible Innovations?**

- Can insurance play a role in addressing L&D associated with slow-onset events (such as gradual sea level rise displacing populations and infrastructure)?
  - What existing insurance or other financial mechanisms now exist to address slow-onset events and non-economic losses?
  - Are current insurance products for climate-related harm limited to only sudden events, insofar as these have an actuarial basis for prediction of loss frequency and claim amount?
  - Is there any principled basis for innovative insurance products to be created that could deal with inevitable loss and damage caused by slow-onset events — or does this type of L&D require other approaches (such as international funds)?
  - Can insurance cover non-economic L&D?
  - What innovative insurance products or other approaches can be taken?

**Part B (10:15 – 11:05 a.m.): Catastrophic (Sudden Event) Loss and Damage: The Role of Insurance, its Limitations and Future Required Innovation**

- Particularly in vulnerable countries, what can insurance do to encourage and finance strong adaptation measures to avoid sudden impact L&D?
  - What are the prerequisites (i.e., what may be missing and what is required) for insurance to achieve these results in vulnerable countries?
- Particularly in developing countries, what are the opportunities and challenges for catastrophic insurance to realistically restore and provide resilience to individuals and communities?
  - What are the problems? Examples:
    - Affordability of premiums: To what extent, now and in the future, will premium payments for individual coverage depend on national government/ international aid/ UNFCCC funding?
    - What are the “on-the-ground” problems and challenges with the deployment, use and administration of insurance for these events, can they be overcome and, if so, how? (e.g., encouraging insurance take-up, delivery mechanisms, role of national and subnational mechanisms, education on insurance products)
    - Scalability and development of new innovative products
  - What insurance products (existing or new) can be introduced to help reduce vulnerability and improve climate resiliency?

- Future sustainability of catastrophic insurance in the face of 2°C+ global temperature increases?
  - Will catastrophic insurance become less available or unaffordable in the future because of greater damage frequency and severity due to climate change, and if so what can/needs to be done? (Note that issues relating to affordability were raised in the OECD Special Session on Climate Change.)
  - Assuming increasing temperatures, has the cost of insurance claim payouts for not only current but future catastrophic events (including parametric events), been reasonably calculated, both for developed and developing countries?
  - Has the premium cost for such future coverage been calculated on a country and per capita basis?
  - Where are the needed sources of premium payments?
  - What solutions are available if insurance becomes unavailable or unaffordable?

**11:05 – 11:15 a.m. — Health Break**

**11:15 a.m. – 12:30 p.m.— Session II: Private and Alternative Sources of Funding for L&D**

- What are current sources of funding for L&D?
- Options to encourage mobilization of private capital for L&D activities
- What are some of the innovative financial products that can be introduced to address L&D and the advantages/disadvantages of these products? (e.g., green bonds, catastrophic bonds, debt swaps)
- Private and donor-type funding for insurance-type solutions

**12:30 – 1:30 p.m. — Lunch**

**1:30 – 2:45 p.m. — Session III: Public Sources of Climate Finance**

- Implications of the Paris Agreement for climate finance and investment; current climate finance flows
- Clarifying whether current UNFCCC funding is available for L&D in light of the Paris Agreement, which recognizes L&D as a separate pillar from adaptation.
- How can states obtain financing under the various UNFCCC funds? What alternative sources of international funds are available?
- What roles can the various stakeholders, such as governments, financial institutions, and insurance companies, play in encouraging climate-resilient investments and growth?
- Raising funds for L&D through carbon taxes and solidarity levies

**2:45 – 3:00 p.m. — Health Break**

**3:00 – 5:00 p.m. — Public Event - *Addressing Loss and Damage: Innovative Climate Finance Solutions***

Venue: 6th Floor, Flom Auditorium

**5:00 – 6:00 p.m. — Reception**

Opening Remarks: Oonagh Fitzgerald

**7:00 – 9:30 p.m. — Private Dinner for Workshop Participants**

Venue: 701 Restaurant, 701 Pennsylvania Ave. NW, Washington, DC 20004

## March 17, 2016 (Day 2)

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8:00 – 9:00 a.m. — Breakfast

9:00 – 9:15 a.m. — Opening Remarks & Recap

9:15 – 10:30 a.m. — Session IV: Regional Risk Pools

- Brief overview:
  - Who is covered by these facilities (governments versus communities and individuals)?
  - Is coverage linked only to parametric factors?
  - Are the parameters tied to sudden versus slow-onset events?
- Lessons learned, future challenges and opportunities
  - Coverage for communities, individuals?
  - Coverage for slow-onset events?
- Sustainability of these facilities
  - Who pays premiums so far?
  - Financing premiums in the long run
  - What can be done to create government premium support?
  - Does the Paris Agreement help?
  - What are the appropriate roles of the international community, private sector and governments?
  - What may be required for greater buy-in from donors? E.g., more transparent use of payouts on climate issues?

9:15 – 10:30 a.m. — Session IV: Regional Risk Pools (continued)

- Advantages of a global risk insurance facility?
  - What are the necessary conditions to replicate and scale up regional risk pools?
  - What are appropriate next steps to achieve a global facility?

10:30 – 10:45 a.m. — Health Break

10:45 a.m. – 12:00 noon — Session V: Index Insurance

- Index insurance in the context of agriculture
- Addressing basis risk (when insurance payouts do not match the losses on the ground): What can be done and what are the alternative/complementary approaches available?
- Affordability of premiums? Should subsidies be provided? What types of funds can play a role and in what way?

12:00 – 1:00 p.m. — Lunch

**1:00 – 2:30 p.m. — Session VI: Considering New Governance, Institutional Mechanisms and Legal Principles**

- The role and necessary features of national mechanisms in attracting and distributing domestic and international funding for L&D: parameters, including transparency, accountability, and effective governance. What can we learn from existing models and practices?
- Emerging liability risks under international legal principles and domestic laws, including state and investor risks and director liability as motivators for states and non-state actors to contribute toward L&D financing?
- Legal implications of article 8 of the Paris Agreement and provisions on L&D in the COP decision adopting the Paris Agreement
- Existing L&D legal and regulatory mechanisms and funds as precedents for a climate resilience and recovery L&D fund (e.g., ship-source pollution funds, nuclear liability funds, hazardous and noxious substance fund, no-fault schemes, carbon levy project)

**2:30 – 2:45 p.m. — Health Break****2:45 – 4:00 p.m. — Wrap up & Next Steps**

- Effective summaries and take-away points from each of the sessions
- Essential matters that the WIM and SCF should consider or act on
- Further research needs: responsibilities, agenda and timetable
- Next steps before COP22; submissions to SCF and WIM

## ABOUT CIGI

The Centre for International Governance Innovation is an independent, non-partisan think tank on international governance. Led by experienced practitioners and distinguished academics, CIGI supports research, forms networks, advances policy debate and generates ideas for multilateral governance improvements. Conducting an active agenda of research, events and publications, CIGI's interdisciplinary work includes collaboration with policy, business and academic communities around the world.

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