

**Loss &
Damage**

Early Lessons from the Process to Enhance Understanding of Loss and Damage in Bangladesh

Advanced Version

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Foreword

This document is the culmination of a process that unfolded over two years in Bangladesh, which benefitted from contributions from individuals and organisations too numerous to mention by name here. However, the authors would like to recognise the extensive contributions and significant dedication of the many researchers who undertook the research work and participated in the stakeholder process, including Professor Ainun Nishat, Dr. M. Asaduzzaman, Dr. Mizan R. Khan, Dr. Enamel Haque, Dr. Nabiul Islam, Mr. Monir Qamar, Mr. Nandan Mukherjee, Mr. Hafijul Islam Khan, Professor Abdullah al Faruque, Mr. M. Shamsuddoha and the individuals who worked with them. Special thanks to those who reviewed the papers, including Dr. Roda Verheyen, Mr. Thomas Loster, Ms. Gaby Ramm and Mr. Michael Zissener. We are grateful for the leadership and valuable research undertaken by Dr. Atiq Rahman, Dr. Golam Rabbani, Dr. Dwijen Malick and their team at the Bangladesh Centre for Advanced Studies, which helped give a voice to some of those incurring loss and damage in Bangladesh. We are also highly appreciative of the support and collaboration of our partners Sönke Kreft, Sven Harmeling and Lisa Meier of Germanwatch and Koko Warner and Kees van der Geest of United Nations University Institute for Environment and Human Security (UNU-EHS). This project would not have been possible without the dedication of Dr. Munjurul Hannan Khan, formerly of the Ministry of Environment and Forests (MoEF), who has championed the issue of loss and damage – among many others – both in Bangladesh and internationally through his participation as a negotiator in the global climate talks over the past decade. In addition, the authors would like to recognise the support of many others at the MoEF, especially former secretary Mr. Mesbah al Alum and current secretary Mr. Shafiqur Rahman Patwari. We would also like to thank our partners at the Comprehensive Disaster Management Programme (CDMP), including Director General Mr. Abdul Qayyum and former Project Manager Dr. Puji Pujiono. Last but not least, we would like to acknowledge the continuous support we received from our colleagues at the International Centre for Climate Change and Development (ICCCAD), Ms. Ina Islam, Mr. Iqbal Ali, Mr. Mahmud Ali, Mr. Mahmud Sabuj Alam, Mr. Md. Rakibul Hasan, Ms. Rahima Akter, Ms. Lucy Faulkner and Mr. Kevan Christensen – among others.

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Responsibility for the content solely lies with the authors. The views expressed in this paper do not necessarily reflect the individual views of the organizations carrying out the Loss and Damage in Vulnerable Countries Initiative.

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Acronyms

BCCRF	Bangladesh Climate Change Resilience Fund
BCCTF	Bangladesh Climate Change Trust Fund
BIDS	Bangladesh Institute for Development Studies
CCA	Climate Change Adaptation
CDKN	Climate and Development Knowledge Network
CDMP	Comprehensive Disaster Management Programme
CPRD	Centre for Policy Research and Development
DRR	Disaster Risk Reduction
GoB	Government of Bangladesh
ICCCAD	International Centre for Climate Change and Development
MCII	Munich Climate Insurance Initiative
MoEF	Ministry of Environment and Forests
MoDMR	Ministry of Disaster Management and Relief
UNFCCC	United Nations Framework Convention on Climate Change
UNU-EHS	United Nations University Institute for Environment and Human Security

Summary for Policy Makers

This document is the result of an almost two-year engagement with the issue of loss and damage in Bangladesh. By providing an assessment of the first comprehensive process to better understand loss and damage at the national-level and presenting key research findings, we hope to inform policy makers in other countries, who might be planning to undertake a similar process. To that end this summary for policy makers summarises the key messages of the document. It must be noted that this document is based on research that is still in progress and there is still a lot that needs to be understood. In addition, we acknowledge that context matters and thus national research must be tailored to the individual needs of each country, taking into account not just the climate change impacts but the political situation and socio-economic realities.

Over the last year significant strides have been made on understanding what loss and damage is and how it is being experienced on the ground. At a basic level loss is “negative impacts which cannot be repaired or restored” while damage can be characterised as “negative impacts that can be repaired or restored” (Kreft et al., 2012). While there is no universally accepted definition of loss and damage, several working definitions have been proposed. In their empirical research of how loss and damage is being incurred in nine developing countries the team at United Nations University Institute for Environment and Human Security (UNU-EHS) proposed defined loss and damage as the impacts of climate change that overwhelm the adaptive and coping capacities of individuals and communities (Warner et al., 2012).

The amount of loss and damage that is eventually experienced on the ground is intrinsically linked to mitigation and adaptation levels. In this sense loss and damage has been categorized as avoided (through mitigation and adaptation), unavoided (through inadequate mitigation and adaptation efforts) or unavoidable loss and damage from climate change impacts that cannot be adapted to such as sea level rise or ocean acidification (Verheyen, 2012). Losses and damages can be economic in nature or non-economic which include

cultural, social, mental and psychological impacts which are difficult to measure but important to address. There are two ways of addressing loss and damage – which must be implemented simultaneously (UNFCCC, 2012). First loss and damage can be reduced before it occurs through mitigation, adaptation and disaster risk reduction (DRR). Second, residual losses and damages that are not avoided can be addressed through risk retention measures like social safety nets and social protection policies, risk transfer measures such as microinsurance and approaches to specifically target slow onset processes such as migration and resettlement policies and programs.

The concept of loss and damage resulting from the impacts of climate change is not new. However, it is only in recent years that loss and damage has become firmly entrenched in the global climate change agenda. The rise of loss and damage in the international process is a reflection of the realisation that neither mitigation nor adaption efforts – at their current levels – are enough to prevent both current and future climate change impacts, and some residual losses and damages will inevitably occur. It is therefore essential to assess loss and damage and implement policies to reduce vulnerability, enhance resilience and facilitate development to reduce avoidable losses and damages and address those that are unavoids or unavoidable.

For the past two years under the Loss and Damage in Vulnerable Countries Initiative, the International Centre for Climate Change and Development (ICCCAD) has guided a national process to enhance understanding of loss and damage including stakeholder workshops and research to understand the gaps and needs for assessing and addressing loss and damage in the national context of Bangladesh. The national research was part of a global project funded by the Climate and Development Knowledge Network (CDKN) and implemented with partners Germanwatch, the Munich Climate Insurance Initiative and UNU-EHS and bolstered by support from the Government of Bangladesh (GoB) and a range of other stakeholders.

Recommendations for National-level Processes on Loss and Damage

Though research should be tailored for national circumstances, there are a number of lessons from Bangladesh that could inform other national-level processes to better understand how to assess and address loss and damage, including:

1. **Perform a needs assessment** to better understand how to tailor policies and programs for the poorest and most vulnerable.
2. **Work as part of a consortium** to maximize opportunities for collaboration and exchange of best practices and ideas between those working in different countries and regions.
3. Invest in **long-term capacity building** of researchers to ensure that high quality research is produced and disseminated to a wide audience and that the research is ultimately translated into policy and practice.
4. Research should culminate in **pilot projects to undertake field research and data collection as well as to test different combinations of approaches** to address loss and damage (e.g. piloting index-based crop insurance or the design of a country-specific comprehensive risk management strategy).
5. **Establish institutional arrangements at the national level** to promote collaboration, ensure coherence and effectively address loss and damage on the ground.
6. **Ensure finance and technology transfer** to support activities aimed at assessing and addressing loss and damage.
7. Use **loss and damage as an opportunity to examine possibilities for integrating DRR and CCA**.
8. Encourage policy makers to **mainstream so-called soft or transformative approaches** to help vulnerable groups assume more sustainable livelihoods.

9. Engage in **regional co-operation** to facilitate knowledge sharing.

10. **Initiate joint activities with developed countries** to encourage mutual learning.

Process

The activities funded by CDKN included four stakeholder workshops and seven technical papers. However, it was clear from the beginning that in order to secure buy-in and ultimately translate the research into tangible results down the road, significant engagement with stakeholders, especially policy makers, would need to be undertaken.

- **Stakeholder engagement** was arguably the most important aspect of the process. Consistent and continuous interaction with key national-level academics, researchers, and policy makers helped to raise awareness and, more importantly, consolidate support for operationalising the research into policy and practice. Stakeholder engagement was facilitated through a variety of activities, including holding workshops, attending meetings and workshops hosted by other organisations and participation in international meetings and global negotiation processes on both climate change and disaster risk reduction (DRR).
- The **four stakeholder workshops** built on one another and contributed to a growing knowledge base on loss and damage in Bangladesh.
 - Workshop I: Key experts presented an overview of loss and damage in the United Nations Framework Convention on Climate Change (UNFCCC) and prompted a discussion about why it means in the Bangladesh context
 - Workshop II: National researchers presented the scope of planned research on assessing and addressing loss and damage in Bangladesh
 - Workshop III: Presentation of preliminary research results and preparations for loss and damage negotiations at COP 18 in Doha

- Workshop IV: Provided a platform for South-South collaboration on approaches to address loss and damage by bringing experts from developing countries to discuss the lessons learned from approaches to address loss and damage in their own national contexts.
- **Building relationships with key policy makers** was an important part of ICCCAD's work as the ultimate aim of the project was to influence policy. This was achieved through attending climate-related events within and outside of Bangladesh as well as one-on-one meetings with high-level officials
- **Research** helped shape the discourse on loss and damage in Bangladesh. To facilitate a process of enhanced understanding, a team of researchers and academics with extensive knowledge and experience working on climate change issues in Bangladesh was assembled. The topics covered by the technical papers undertaken include:
 - An overview of approaches to assess the risk of loss and damage;
 - Addressing loss and damage from: (1) a spectrum of climate change impacts, (2) extreme events, and (3) slow onset processes;
 - Legal and institutional frameworks for addressing loss and damage;
 - Microinsurance as a tool to address loss and damage;
 - The integration of DRR and climate change adaptation (CCA) to better address loss and damage.
- **Participation in international processes** helped build relationships with stakeholders in Bangladesh and with international experts and stakeholders, which promoted South-South collaboration and opened up opportunities such as the establishment of the Asia Pacific Forum on Loss and Damage.

Key Research Findings

The research primarily focused on approaches to address loss and damage in the national context of Bangladesh. The key findings include:

- **Transformational approaches are needed to address loss and damage**, particularly with respect to non-economic losses and slow onset processes. Non-structural, or “soft” approaches that focus on identifying risk, building resilience and anticipating impacts should be scaled-up. Possible tools include livelihood diversification programs that help the climate-vulnerable transition to more climate-resilient livelihoods and risk transfer measures such as microinsurance.
- **Comprehensive approaches are necessary to effectively address loss and damage.** DRR and CCA policies should be integrated with one another and mainstreamed into development policies and plans. Policies and programs on DRR could benefit from integrating CCA's long-term approach and CCA from DRR's focus on local level activities. Efforts to address loss and damage would also benefit greatly from a multi-faceted approach that integrates mechanisms and processes for risk reduction, risk retention and risk transfer. Finally, it is also important to establish greater linkages between structural and non-structural approaches.
- **Capacity building is required to effectively design and implement approaches to loss and damage.** This depends on human, material, technological and intellectual resources being made available to put these ideas into action. Improvements in capacity can facilitate more informed domestic policy on loss and damage and more strategic positioning in international negotiations on the subject.
- **Enhanced collaboration and communication within as well as between government agencies and external research organisations and other relevant entities is critical to advancing efforts to**

assess and address loss and damage. This requires an exchange between high-level technical experts, mid-level project managers and development practitioners as well as local actors with intimate knowledge of the areas and populations affected to break down “silos”.

- **Enhanced public awareness about climate change in general, and loss and damage specifically can facilitate better implementation of relevant policies and programmes.** An improved understanding of the risks associated with these impacts may encourage greater uptake of risk transfer mechanisms (e.g. microinsurance) and improve the efficacy of risk reduction programs like early warning signals and cyclone shelters.
- **Linking national, regional and international processes will play an important role in advancing the loss and damage agenda** by facilitating an exchange of knowledge and expertise. This could be achieved through a bottom up approach that uses national legal frameworks to inform international understanding of loss and damage.
- **Finance and technology transfer will be required to undertake the research and activities necessary to understand, assess, and address loss and damage.** The collection and assessment of new data is especially important for enhancing understanding areas, people and systems at risk of loss and damage. Loss and damage assessments cannot rely solely on historical data as they need to consider long-term climatic changes and account for future generations
- **The establishment of a national-level loss and damage mechanism will facilitate the implementation of current and new policies and programmes that contribute to addressing loss and damage.** Loss and damage is already occurring at the local level. Therefore, Bangladesh cannot afford to

wait for international guidance, but should instead seek to inform international processes through national action.

- **To further the understanding of loss and damage, there is much research that needs to be undertaken.** Research needs include the collection of baseline data and evidence from the field, determining thresholds that identify when climate change impacts are beyond the reach of adaptation efforts non-economic loss and damage and slow onset processes – among others.

Lessons Learned from the Process

In addition to findings generated from the research a number of lessons were learned about how to undertake a national process to enhance understanding of loss and damage in a national context, including:

- **Engage the right people** and empower key actors who have the ability to influence policy makers and move the loss and damage agenda forward.
- **Provide research support** to convert quality research into quality research outputs.
- **Build social capital** by actively expanding networks and creating alliances with key stakeholders, especially those in government agencies.
- **Collaborate and cooperate** by discussing the research in collaboration with one another to stake out the boundaries of the research initiative, particularly given the newness of this topic.
- **Know the needs in advance** by commissioning a needs assessment to be undertaken simultaneously with the research so that when it is time to translate research into policy and practice, it will be clear what the needs on the ground vis-à-vis addressing loss and damage are. This will help policy makers develop tools that best meet the needs of the climate vulnerable.

Introduction

Though loss and damage is a newcomer to the global climate change regime, the notion that there would be some impacts of climate change from which recovery would not be possible was first introduced by the Alliance of Small Island States (AOSIS) in 1991. In their proposal to the Intergovernmental Negotiating Committee – the body that negotiated the United Nations Framework Convention on Climate Change (UNFCCC, hereafter referred to as ‘the Convention’) – AOSIS suggested that an international insurance pool should be created to compensate small island states for territory lost to sea level rise. While the proposal was ultimately not incorporated into the Convention, the word insurance survived in Article 4.8. For the first decade the global climate change negotiations focused on mitigation and the importance of avoiding the impacts of climate change by reducing emissions – the very reason why the Convention was created in the first place. When it became clear that mitigation efforts had not been sufficient to avoid climate change impacts altogether, adaptation joined mitigation as a focus of negotiations, and became an area of particular concern to developing country Parties. We have now entered the third decade of Convention and with it has come the realisation that neither mitigation nor adaptation efforts – at their current levels – have been enough to prevent both current and future climate change impacts. As a result, there is and will continue to be residual losses and damages from the impacts of climate change. Thus, we are entering a new era in which loss and damage will necessarily need to become a key focus of climate change processes at the international, national and local levels (Huq and Roberts, forthcoming).

In 2007, the term ‘loss and damage’ appeared for the first time in the Bali Action Plan, the decision emanating from the thirteenth Conference of the Parties (COP). The decision calls for enhanced action on adaptation, including “disaster risk reduction and means to address loss and damage associated with climate change impacts in developing countries” (UNFCCC, 2008). At COP 16, held in Cancun 2010, loss and damage was granted an agenda of its own with the establishment of the Work Programme on Loss and Damage aimed

at enhancing understanding of loss and damage in developing countries (UNFCCC, 2011).

Shortly after the work programme was created at COP 16 in Cancun, the Government of Bangladesh (GoB) approached the Climate and Development Knowledge Network (CDKN) and requested support to facilitate greater understanding of loss and damage and how to address it in vulnerable countries, especially those that are least developed. After consulting with the GoB, CDKN issued a call and commissioned a consortium of organisations – including Germanwatch, the Munich Climate Insurance Initiative (MCII), United Nations University’s Institute for Environment and Human Security (UNU-EHS) and the International Centre for Climate Change and Development (ICCCAD).

Each organisation has played a distinct role in the initiative: Germanwatch provided policy support, MCII provided conceptual framing, UNU conducted case studies that identified evidence of loss and damage experienced in vulnerable countries and ICCCAD undertook a multi-faceted process to better understand loss and damage in the national context of Bangladesh – a country highly vulnerable to the impacts of climate change. The first phase of the work began in January 2012 and ended in March 2013. This phase consisted of four stakeholder workshops and seven technical papers undertaken by national researchers with expertise in a range of areas related to climate change and development. There were many positive outcomes and additional activities were carried out to help “grow” the issue of loss and damage in Bangladesh, including engagement with a wide range of stakeholders and relationship building with policy makers. However, there were also many lessons learned that might help other countries avoid some of the challenges that arose. The second phase – beginning in April 2013 – is on-going and has involved engaging with the GoB and other stakeholders to set the foundation for developing institutional arrangements to address loss and damage at the national level.

Despite the fact that loss and damage has garnered increased attention in the international arena, a universally accepted definition of the term does not yet exist. At a basic level loss is the “negative impacts which cannot be repaired or restored” while

damage is “negative impacts that can be repaired or restored” (Kreft et al., 2012). A working definition of loss and damage as the impacts of climate change that are beyond the adaptive and coping capacities of individuals and communities was developed for empirical research undertaken in nine developing countries by UNU-EHS. For our work in Bangladesh the team at ICCCAD used a similar definition which characterises loss and damage those impacts that are “beyond adaptation” but with clear linkages to mitigation and adaptation agendas. The more greenhouse gases are mitigated the less severe climate change – and its accompanying impacts – will be. Similarly, the more intensive efforts to adapt to what climate change impacts do come, the less loss and damage there will be. Given historical emissions and contemporary adaptation efforts, however, a certain amount of loss and damage has already been “locked in”. Therefore, it is essential to assess and address loss and damage to reduce vulnerability, enhance resilience and facilitate development.

The need to address loss and damage – from both extreme events and slow onset processes – in Bangladesh is well established. With most of its territory less than ten metres above sea level, this country – often described as a “mega-delta” – is highly exposed to cyclones and related storm surges, floods, salinisation and sea level rise. The north-eastern region is also prone to drought, which is exacerbated by reduced water supply from glacial melt at the Himalayan headwaters of Bangladesh’s extensive river system. In addition to geographic factors that contribute to its vulnerability to climate change, Bangladesh is a least developed country with 31.5 percent of the population living below the poverty line (World Bank, 2010). These factors conspire to render Bangladesh’s population highly vulnerable (to varying degrees) to the effects of climate change.

A case study undertaken in Bangladesh by the Bangladesh Centre for Advanced Studies in partnership with UNU-EHS found that in the aftermath of cyclone Aila in 2009 four communities in Bangladesh’s coastal region were unable to produce rice for three years after the cyclone’s onset due to increased salinisation (Warner et al., 2012). While the study is just a snapshot of loss and

damage in four communities, it is clear that loss and damage is occurring already in both Bangladesh and in other countries – both developing and developed – around the globe. Given this reality it is important that the capacity to assess and address loss and damage be enhanced. The research undertaken sought to contribute to that need in Bangladesh by facilitating a process to broaden the understanding of loss and damage at the national level. The purpose of this document is to disseminate some of the lessons learned in Bangladesh that could not only inform other countries embarking on similar processes at the national level but could also inform negotiations at the international level.

Recommendations for National-level Processes on Loss and Damage

While national circumstances differ there are potentially a number of lessons from the Bangladesh process that could inform processes to enhance understanding of loss and damage in other countries:

1. **Perform a needs assessment** to understand the needs on the ground and inform the development of policies that benefit the poorest and most vulnerable.
2. **Work as part of a consortium** to maximize opportunities for collaboration and exchange of best practices and ideas between those working in different countries and regions.
3. Invest in **long-term capacity building** to ensure quality research outputs are disseminated widely and translated into policy and practice.
4. Research should culminate in **pilot projects to undertake field research and data collection as well as to test different combinations of approaches** to address loss and damage (e.g. piloting index-based crop insurance or the design of a country-specific comprehensive risk management strategy).
5. **Establish institutional arrangements at the national level** to promote collaboration, ensure coherence and effectively address loss and damage on the ground.

6. **Ensure finance and technology transfer** to support activities aimed at assessing and addressing loss and damage.
7. **Use loss and damage as an opportunity to examine possibilities for integrating DRR and CCA.**
8. Encourage policy makers to **mainstream so-called soft or transformative approaches** to transition vulnerable groups out of climate-sensitive sectors.
9. Engage in **regional co-operation** to facilitate knowledge sharing.
10. **Initiate joint activities with developed countries** to encourage mutual learning.

Process

The design of the national-level process on loss and damage in Bangladesh was greatly influenced by the international process on loss and damage within the UNFCCC. The first Bangladesh workshops were aimed at providing space for reflection on the international negotiations and discussions in the national context to inform the first round of research papers. As the international negotiations progressed, topics for a second round of papers were subsequently identified. It has to be noted, that since the inception of our project in early 2012, the loss and damage agenda has been further consolidated. At COP 18 in Doha Parties decided to establish institutional arrangements – such as an international mechanism - at the upcoming COP 19 in Warsaw (UNFCCC, 2013). National loss and damage processes will need to synergise with these institutional arrangements to best address residual impacts within national borders and promote regional collaboration to address transboundary issues.

While the research sought to translate discussions on loss and damage at the international level to a national context and ultimately inform negotiations under the Convention, participation in international meetings, workshops and negotiations helped to

cement relationships with key Bangladeshi policy makers. One-on-one meetings and dinners with senior officials – both in Bangladesh and abroad – helped to build a network of important contacts and provide a forum to report on progress of the project and discuss next steps. The section below describes how each component of the project unfolded.

Stakeholder Engagement

As elucidated above, arguably the most important aspect of the process was stakeholder engagement. Consistent and continuous interaction with key national-level stakeholders including academics, researchers, and policy makers helped to raise awareness and, more importantly, consolidate support for operationalising the research into policy and practice. Stakeholder engagement was facilitated through a variety of activities, including holding workshops, attending meetings and workshops hosted by other organisations and participation in international meetings and global negotiation processes.

The most important aspect of the stakeholder engagement process was building relationships with key policymakers. ICCCAD has in-built relationships with several representatives of the MoEF but had engaged very little with the Ministry of Disaster Management and Relief (MoDMR). By the end of the project the MoDMR was very much on side and in fact it was the secretary himself who suggested the need to establish an institutional framework to address loss and damage more comprehensively in Bangladesh. The importance of integrating or harmonising the DRR and CCA agendas was an issue that had already been taken up by the Comprehensive Disaster Management Programme (CDMP) – a government-run program that is funded by multiple donors and oriented to addressing disaster risk. The team at ICCCAD struck up a relationship with CDMP's national project director and project manager through our involvement with the DRR community and added the dimension of loss and damage. We are now working with CDMP to develop a conceptual framework and eventually concrete policies to address loss and damage and integrate DRR and CCA with the aim of building resilience and reducing vulnerability to climate change impacts.

Climate change is a top priority for the GoB. Thus, ICCCAD did not have to convince policymakers of the importance of addressing loss and damage. That said engaging policy makers is a continuous process. The challenge moving forward will be to continue to engage with the key ministries involved in implementing DRR and CCA activities while branching out to engage with other ministries like health, water, planning and others relevant to addressing loss and damage.

Workshops

In total four workshops were held in the thirteen-month process – from January 2012 to February 2013 – that served as the first phase of the work on loss and damage in Bangladesh. The content and discussions that took place were concurrent and progressive, building on one another and demonstrating a growing awareness and growing knowledge base on loss and damage in Bangladesh.

The first workshop took place in January of 2012 before any research activities had been initiated. The content of the workshop focused on providing an overview of loss and damage within the UNFCCC process and included presentations that highlighted some issues related to both assessing and addressing loss and damage. Additionally, this workshop provided a sounding board for attendees to discuss some of the issues and concepts related to loss and damage that were relevant to their particular area of expertise.

By the time the second workshop was held in June 2012, the loss and damage agenda had advanced significantly at both the national and international levels and the national project had progressed to the research stage. Thus, the second workshop served as a platform to present the scope of the research to be undertaken and provided a platform for those working on issues related to climate change in Bangladesh to provide feedback. While some feedback on the proposed research was received, the follow up discussion largely focused on conceptual issues such as the definition of loss and damage and recognising non-economic losses and broader issues such as trans-boundary water sharing. That said there were some concrete suggestions such as creating an international insurance pool to settle

claims from nation-states for compensation from loss and damage.

Just days before the pre-sessional meetings were held in Doha prior to COP 18, the third workshop of the series was held - in November 2012 - at which the preliminary research findings were presented. In addition, partners from CDMP were invited to discuss some of their work related to extreme events and a presentation was made on gender and loss and damage by noted experts working on climate change and gender issues in Bangladesh. It was clear from the follow-up discussion that there were still some underlying issues that needed to be recognised and incorporated into the debate and into approaches to assess and address loss and damage. For example, there was persisting resistance from some stakeholders in attendance to the idea that insurance could be used as a means of addressing loss and damage. This seemed to stem largely from a rejection of the idea that the poor should pay premiums to insure them against impacts for which they are not responsible. In addition, the need to factor in the role of governance in creating or exacerbating vulnerability was highlighted. The role of entitlements – especially in regard to loss and damage from slow onset processes – was also raised. However, overall, it was clear that the conversation had evolved significantly since the previous workshop, and answers were beginning to solidify around some key issues such as the importance of enhancing understanding of how to assess and address slow onset processes. Nevertheless, many complex issues still needed to be addressed, such as the question of measuring non-economic losses and determining thresholds – a situation that mirrored progress on the loss and damage agenda in the international climate change negotiations.

The fourth and final workshop in the series expanded the conversation from a national-level dialogue between stakeholders within Bangladesh to a collaborative South-South exchange on approaches to address loss and damage. Experts representing government and non-government organisations from India, Pakistan, Nepal, Senegal, Sudan, Ethiopia, Ghana and Mozambique attended the workshop. An overview of the Doha decision on establishing institutional arrangements for loss and damage was provided as background at the beginning of the

workshop and presentations were given on how loss and damage is being addressed in different national contexts. Discussions emphasised a wide range of issues including the need for new approaches to address loss and damage beyond that which countries have previously experienced, the need for developing countries to share best practices, and the importance of developing national institutional frameworks to benefit from international funds.

With respect to the importance of enhancing engagement with international processes, it was noted in the final workshop that significant advancements need to be made before 2015, a pivotal year that will mark the launch or renewal of three key processes: the development of a post-Hyogo Framework of Action for DRR, the creation of international sustainable development goals, and (hopefully) the finalisation of a new climate change agreement under the Convention. As in previous workshops the definition of loss and damage was questioned, with one participant insisting that it was important to have a universal definition before proceeding. However, it was clear from the range of presentations and interventions that a lot of work is being done on loss and damage without such agreement. Once again it was made clear that there was more to be done, especially on understanding and addressing non-economic losses and loss and damage from slow onset processes. As before, the discussions that took place in this final workshop were very much aligned with on-going discussions on loss and damage at the international level.

Building Relationships with Key Policy makers

While the workshops engaged a wide range of stakeholders and raised awareness of both the research and the issue of loss and damage within Bangladesh, the ultimate aim of the project was to influence policy. Thus, an integral part of the work consisted of actively engaging with policy makers, which was done in a variety of ways. Starting early in the first phase of the project, the project coordinator began attending at least one climate-related event – there are many to choose from, as climate change is a key topic on the policy agenda in Bangladesh – each week to increase the profile of the project and to meet key stakeholders and policy makers, who could help translate the research into policy and practice. Through this practice, the

coordinator became familiar with a broader group of stakeholders, who, in turn, began to take note of the project. However, to engage with more senior officials required meeting face to face, meetings which were not always easy to arrange. Key contacts in the ministries helped immeasurably in this regard, and a number of high-level meetings were arranged with secretaries and other senior government officials to profile past work and garner buy in for future activities. Participation in international meetings as part of the Bangladesh delegation also helped build relationships with key stakeholders. Participation in the UNFCCC negotiations helped increase the profile of the project with key officials in the MoEF while participation in events related to disaster risk reduction (DRR), such as the Asian Ministerial Conference on DRR, helped the coordinator build relationships with officials from the MoDMR.

Research

In the past year, the discourse on loss and damage in Bangladesh has evolved significantly, which can be attributed in part, if not wholly, to ICCCAD's work under the Loss and Damage in Vulnerable Countries Initiative. When the project began most of the stakeholders and many of the researchers – though possessing extensive knowledge of climate change issues – were unclear about what loss and damage was, let alone how to assess and address it. This confusion was also taking place at the global level and, as in the international climate change negotiations, required some “muddling through” in discussions and research before it was evident what this emerging concept meant for Bangladesh. To facilitate a process of enhanced understanding, a team of researchers and academics with expertise in a range of fields assembled.

A team assembled by a key player in the climate change arena in Bangladesh and the former director of the Bangladesh Institute for Development Studies (BIDS), Dr. M. Asaduzzaman. Dr. Asaduzzaman's team included Dr. Nabiul Islam, a researcher at BIDS and an expert in assessing flood risk; Dr. Enamel Haque, a professor at United University and an economist with research expertise in assessing the economic impacts of climate change, and Mr. Qamar Munir, a senior official with the Planning Commission to provide the policymaker's

perspective. The focus of the paper was assessing the risk of loss and damage – the first thematic area of the UNFCCC work programme – in the context of Bangladesh. The original aim of the paper was to provide a link to the work programme in the national context with the idea that developing approaches to address loss and damage requires an improved understanding of who and what is at risk from loss and damage as a result of climate change impacts.

The second paper was undertaken by team at BRAC University led by Professor Ainun Nishat, the vice-chancellor of the university, and Mr. Nandan Mukherjee, the director of the Centre for Climate Change and Development at BRAC University. The paper focused on the second thematic area of the work programme – addressing loss and damage to both extreme events and slow onset processes – in the national context of Bangladesh. The paper was intended to provide an overview of policies and programmes already in place that could address loss and damage, and to provide an understanding of those that should be in place in order to better address loss and damage. The aim of the paper was to inform policy makers at the national level of what needed to be done to create a robust system of policies and programmes to reduce avoidable loss and damage and address unavoids or unavoidable loss and damage.

In addition to the papers on thematic areas one and two, a third paper was commissioned on the legal and institutional context for addressing loss and damage in Bangladesh. Dr. Abdullah Faruque, the dean of the law department at Chittagong University, undertook the study with support from Mr. Mohammed Hafijul Khan of the Centre for Climate Justice, Bangladesh. The resulting paper suggests how Bangladesh could access international sources of climate finance to compensate those who incur loss and damage. The aim of the paper was to inform policy makers and provide input into the process to develop a national mechanism to address loss and damage in Bangladesh (a process that the GoB is planning to begin and which is elaborated on below).

After research for the three papers had begun, a second set of papers was commissioned based on feedback received during the second stakeholder

workshop. During discussions at the workshop, several stakeholders highlighted the importance of developing a better understanding of how loss and damage should be addressed at the local level. In response to this call, two papers were commissioned on approaches to addressing local level loss and damage in Bangladesh: one on slow onset processes and another on extreme events. Professor Nishat and his team undertook the first of these papers, while Mr. M. Shamsuddoha of the Centre for Participatory Research and Development (CPRD) and his team took on the second paper. The aim of the first paper was to inform local level policy makers of the complexity of sea level rise, its links to salinisation and to provide some ideas for how it can be addressed. The aim of the second paper was to provide a snapshot of how loss and damage is being incurred at the local level and to suggest how to address and reduce this loss and damage.

During the stakeholder workshop it was apparent that there is a lot that still needs to be understood about how to use insurance as a tool for addressing loss and damage in Bangladesh. The penetration rate of insurance products in Bangladesh is extremely low (0.9 percent) (Khan et al., 2013), and there is a wide range of financial and social barriers inhibiting the development of a feasible climate insurance mechanism. There is also significant resistance to the idea of using insurance in the context of climate change in Bangladesh for a myriad of reasons, one of which is the belief (strongly held by many) that the climate vulnerable should not pay (in the form of premiums) for impacts from a phenomenon (climate change) for which they are not responsible. In response to this need for enhanced understanding about the role of insurance in addressing loss and damage from climate change impacts, Professor Mizan Khan of North South University, was commissioned to develop a paper on microinsurance. The aim of the paper was to provide an overview of how microinsurance has and has not worked in Bangladesh, examine these successes and failures and suggest how it can be used as a tool to address loss and damage.

The final paper commissioned as part of the Bangladesh process focused on the integration of DRR and CCA policies and programmes in the context of loss and damage. Addressing loss and

damage from climate change impacts will require both DRR and CCA policies, which are generally implemented by different ministries not working in collaboration with one another. It is widely held that in order to promote coherence and efficiency, there should be integration – or, at the very least, harmonisation – between the two. However, few know how the integration process would work in practice. This paper – undertaken by researchers at CPRD – has suggested a mechanism for integrating DRR and CCA in a unit under the Planning Commission, which would allow loss and damage to be addressed more holistically.

Participation in International Processes

As mentioned above, participation in international events helped build relationships with stakeholders in Bangladesh, particularly among key policy makers. However, participation in these events also helped create a rapport with international experts and stakeholders, which promoted South-South collaboration and opened up opportunities such as the establishment of the Asia Pacific Forum on Loss and Damage. The Forum was formally launched in March 2013 at the Asia Pacific Forum on Loss and Damage held in Incheon, Korea. Shortly thereafter a steering committee was formed to guide the work of the Forum and it was decided that ICCCAD would serve as the secretariat. The objective of the forum is to provide a platform for sharing research and disseminating knowledge on loss and damage in the Asia Pacific region. Plans are underway to develop a website to host the Forum.

In addition to the work facilitating regional collaboration on loss and damage ICCCAD – with support from consortium partners – was able to support the participation of several national researchers in international meetings and the international negotiations on loss and damage. This helped keep the researchers in touch with the international negotiations, and enhanced awareness about how the loss and damage debate was evolving at the global level.

Team Building

The sense that we were all working as a team was consolidated early on with bi-monthly meetings with all of the researchers. Facilitated by ICCCAD's director, these discussions served to, first, enhance

our understanding of loss and damage, and then to disseminate that knowledge to a wider group of stakeholders in Bangladesh. During monthly team dinners the team would discuss key questions related to loss and damage.

In February 2012, the project coordinator began meeting with the research teams that had been chosen to take on the various technical papers. Unfortunately, due to visa issues, none of the researchers was able to participate in the UNFCCC expert meeting on assessing the risk of loss and damage, which was held in Japan in late March 2012. However, the project coordinator was able to attend the meeting and disseminated the key messages to researchers during a team meeting in Dhaka in early April.

Several researchers travelled to Bonn for the 36th session of the UNFCCC's Subsidiary Body for Implementation in late May 2012. During the session, a meeting was held with the consortium partners to introduce those working on the national project in Bangladesh to everyone working on the Loss and Damage in Vulnerable Countries Initiative. As the research progressed, so did the understanding of stakeholders and researchers of how loss and damage can be addressed in Bangladesh.

Building Capacity

Bangladesh is the first country to have undertaken a national process to enhance understanding of loss and damage. The teams that took on the research encountered a very steep learning curve as loss and damage was and continues to be an evolving concept. As such, it was important (and inevitable) that this process increased the capacity of the research team and provided an opportunity for continued learning.

One important dimension of capacity building that was advanced during this process was a broadened understanding of how to work effectively in a multi-national academic environment. While many researchers involved in this project had substantial experience working on international projects and with multi-national teams some of our partners work predominantly in a national context. In Bangladesh, academic research is less focused on peer-reviewed written outputs. Instead, greater emphasis is placed

on expanding knowledge and communicating this information directly with colleagues and policy makers. While the expertise of national researchers on the topic is unparalleled, some assistance was needed in drafting and editing the technical papers to better orient to an international audience.

A second component of capacity building that was facilitated by this project was the development of broader and deeper knowledge networks between Bangladeshi researchers and their counterparts in both developing and developed countries. Participation at international meetings provided an opportunity for researchers to explore opportunities for collaboration and knowledge sharing. Establishing these types of networks is integral to the development of national capacity on loss and damage. In particular, South-South networks that facilitate the exchange of best practices and emerging knowledge in developing countries are important to develop and maintain. The networks that were built over the course of the initial phase of research continue to be cultivated and built upon to facilitate an exchange of best practices and knowledge on loss and damage.

Key Research Findings

Most of the research undertaken focused on better understanding how to address loss and damage in Bangladesh given finite resources. It is clear that substantial new research still needs to be undertaken before a methodology to assess and predict loss and damage in Bangladesh can be developed. Plans are afoot to address this need in a future research phase. However, through the research process, a lot was learned about how to address loss and damage, especially with respect to needs and gaps. Currently, there is a lot being done to address climate change impacts in Bangladesh, and the GoB has been very proactive in this regard. Two funds – the Bangladesh Climate Change Trust Fund (BCCTF) and the Bangladesh Climate Change Resilience Fund (BCCRF) – have been established to finance climate change-related projects – both on mitigation and adaptation. A climate change unit under the MoEF oversees the projects implemented under the BCCTF. In addition, a climate change cell under the Department of Environment prepares technical

papers to support the international climate change negotiations and facilitates research on climate vulnerable sectors – among other climate-related tasks. Despite these positive steps, however, more could be done to address loss and damage, especially in light of current emissions trajectories and predicted future climate change impacts. The following section outlines some of the most significant research findings that emerged from this project, and outlines key challenges and opportunities for advancing the loss and damage agenda in a national context.

1. Transformational Approaches

The need for transformational approaches to address loss and damage – particularly with respect to non-economic losses and slow onset processes – is one of the most prominent themes that emerged from the research. While a lot is being done on climate change already, the GoB needs to take greater steps to incorporate the long-term impacts of climate change into planning, policies and programmes – particularly when it comes to reducing vulnerability and enhancing resilience among poor populations that are most at risk. Better land-use planning can minimise the exposure of infrastructure, housing and crops to future climate change impacts (Nishat et al., 2013a). In addition, more progressive migration and relocation policies that recognise the diverse situations of migrant households can provide better support to families, who move in response to both extreme events and slow-onset processes (Nishat et al., 2013b).

The research findings indicate that non-structural, or “soft”, approaches that focus on identifying risk, building resilience and anticipating impacts should be scaled-up (Ibid). Encouraging livelihood diversification towards more climate-resilient pursuits (e.g. from agriculture, aquaculture or livestock-raising into sewing or transportation) can reduce the risk of loss and damage among vulnerable populations. Working with private sector partners to develop risk transfer tools – such as microinsurance (and, specifically, weather-index based crop insurance) – that are affordable and desirable for the poor is another opportunity that should be further explored (Khan et al., 2013). Finally, transformative approaches are also required to improve how we account for and address non-

economic losses – the social, cultural and other intangible loss and damage that is incurred by vulnerable populations.

2. Linking Approaches

Fostering innovative solutions that effectively address the multi-faceted nature of loss and damage will also require the facilitation of dynamic and complementary linkages between different approaches. This is especially true with respect to DRR and CCA, two intimately connected fields that share many objectives and methodologies.

Both DRR and CCA aim to address climate change impacts, though on different scales. DRR is focused on short-term responses to extreme events while CCA is focused on long-term adjustments to gradual impacts. In order to achieve greater synergy between these fields, and promote more effective results, experts and practitioners in each field must work more proactively to reconcile their approaches. In Bangladesh, it was found that a CCA-oriented focus on building resilience to reduce long-term vulnerability would be a positive influence on DRR projects and programmes, which often adopt a myopic focus on short-term relief and reconstruction that undercuts autonomous adjustment (Shamsuddoha et al., 2013a). Additionally, CCA activities and actions could be mainstreamed more effectively by learning from the down-scaling of DRR to local-level institutions – an approach that has led to the development of a broad network of DRR infrastructure, institutions and processes in communities across Bangladesh (Ibid). Overall, increased coordination and synergy between DRR and CCA “will help to eliminate redundancy, increase cost effectiveness and leverage the respective advantages of each” (Ibid).

Efforts to address loss and damage would also benefit greatly from a cross-sectoral approach that integrates mechanisms and processes for risk reduction (taking concrete steps to mitigate risk), risk retention (accepting and living with risk) and risk transfer (shifting the burden of risk through mechanisms like insurance). While early warning systems and cyclone shelters have saved many lives in Bangladesh, better incorporation of local knowledge – particularly with respect to gender and cultural sensitivity – into the design and

implementation of risk reduction systems could increase the number of people, who use them (Nishat et al., 2013b). To increase resilience to both extreme events and slow onset processes, risk retention programmes need to be scaled-up and redesigned to more effectively target those households that are most vulnerable to climate change-related loss and damage (Shamsuddoha et al., 2013b). In addition, risk transfer mechanisms also need to be redesigned to meet the unique needs of the poor, and a broader awareness campaign is required to ensure that vulnerable populations are aware of these mechanisms and of the changing nature of risk brought on by climate change (Khan et al., 2013).

Finally, it is also important to establish greater linkages between structural and non-structural approaches. For example, building embankments to protect at-risk communities from coastal inundation can reduce vulnerability, but without the technical capacity and resources to maintain these structures, embankments are likely to weaken or fail (Nishat et al., 2013a). Structural approaches can be valuable, but are limited by funding and capacity, and generally more effective against extreme events than slow onset processes. Non-structural approaches can help to identify risk, change behaviour to enhance adaptive capacity over the long term and also improve planning to identify where structural development can yield the greatest benefits in terms of vulnerability reduction. It is therefore important to ensure that loss and damage policies and programmes pay equal attention to both structural and non-structural approaches and integrate the two (Ibid.).

3. Capacity Building

One of the long-term objectives of the process was to build the capacity of Bangladeshi stakeholders to move loss and damage forward in research as well as policy and practice. Effectively designing and implementing new approaches to address loss and damage ultimately requires increased capacity at multiple levels. Human, material, technological and intellectual resources need to be available to put these ideas into action. To this end, front-end investment to develop the technical expertise and research infrastructure will enhance the national capacity to assess and respond to loss and damage.

Effective and sustained human resource development, particularly with respect to the technical competencies required for hazard and exposure analysis, will build capacity among government researchers and staff to properly assess loss and damage risks (Asaduzzaman et al., 2013).

Capable people also need the right tools. Building the research infrastructure and equipment that is required to gather the localised environmental and socio-economic data needed for assessing climate risk and potential loss and damage takes time, and may require significant investments before yielding any operational benefits (Ibid). Additionally, further efforts must be made to enhance national capacity to better understand, assess and address the non-economic impacts of loss and damage. To advance both objectives, developing country governments should prioritise capacity development, and work with developed country partners to secure the requisite training, technology and funding (Ibid).

Effectively responding to loss and damage will necessitate both inter-agency collaboration and enhanced cooperation across levels of governance. As such, improvements in institutional capacity are not only required for technical roles, but are needed to facilitate action both horizontally and vertically across government levels. Empowering local governments to carry out risk reduction initiatives and build resilience at the community and household level is especially important, as it is this level of government that is generally most in-tune with the needs of local populations (Shamsuddoha et al., 2013b). At higher levels of government, improvements in capacity can facilitate more informed domestic policy on loss and damage and more strategic positioning in international negotiations on the subject. To attain these outcomes, however, improved capacity must be matched by changes to government systems that facilitate better cooperation and collaboration between departments and staff.

4. Enhanced Collaboration and Communication

The need for enhanced collaboration and communication within government as well as between government agencies and external research organisations and other relevant entities, is critical to advancing national-level efforts to understand and

address loss and damage. This complex issue requires both a cross-sectoral and multidisciplinary approach, with inputs from a range of high-level technical experts, mid-level project managers and development practitioners as well as local actors with intimate knowledge of the areas and populations affected. Within government, the persistence of departmental “silos” that inhibit effective inter-agency collaboration and information sharing is a key barrier to the type of comprehensive horizontal cooperation required to facilitate successful outcomes (Shamsuddoha et al., 2013a). Additionally, strong hierarchical structures that separate staff at different levels of government can create vertical barriers that limit bottom-up communication to high-level decision-makers (Ibid).

Beyond these institutional barriers to effective communication, there are also informational hurdles that must be overcome to ensure that new research on loss and damage is effectively conveyed to decision-makers. Enabling policy makers to take informed decisions about how to address loss and damage requires that researchers frame their findings in a manner that is clear and actionable; tailoring the message to the needs of their audience, explaining findings simply and succinctly, and identifying priorities for action (Ibid). To this end, having “gatekeepers” with an in-depth understanding of both the research issue and the needs of decision-makers can help to facilitate effective communication (Ibid).

Finally, the GoB should foster and maintain knowledge networks between relevant government entities and national and international research organisations that are exploring the issue of loss and damage (Shamsuddoha et al., 2013a). Tapping into these networks will ensure that current and future policies and programmes to address loss and damage are informed by the best available information, tools and processes. This is particularly relevant with respect to the issue of intangible loss and damage, a knowledge gap that must be addressed in the coming years. Additionally, such networks will provide opportunities for developing countries to tap into the expertise and capabilities of developed countries, and also share knowledge, skills and lessons-learned with developing country counterparts (Asaduzzaman et al., 2013).

5. Increase Public Awareness

Developing better ways of communicating and disseminating knowledge about climate change-related loss and damage should be expanded beyond government and research institutions. Enhancing public awareness about climate change in general, and loss and damage specifically, can facilitate better implementation of relevant policies and programmes. By improving public understanding of the changing nature of extreme events, and the impending and escalating impacts associated with slow-onset processes, governments can try to change public attitudes towards these phenomena. Accordingly, an improved understanding of the risks associated with these impacts may encourage greater up-take of risk transfer mechanisms (e.g. microinsurance), which in turn can help to make the provision of these mechanisms more financially viable (Khan et al., 2013). Additionally, at-risk populations that are more aware of the specific nature of their vulnerability can actively take steps to reduce their exposure to relevant hazards and take up more climate resilient livelihoods. An improved understanding of risk reduction systems like early warning signals and cyclone shelters may also increase their willingness to use these mechanisms to mitigate risk.

6. Linking National with Regional and International Processes

Linking national with regional and international processes will play an important role in better addressing loss and damage within national borders. Regional cooperation can facilitate a knowledge and expertise sharing process (Nishat et al., 2013a). In their paper on the legal and institutional context in Bangladesh, Faruque and Khan (2013) recommend a bottom up approach that uses national legal frameworks to inform international understanding of loss and damage. Thus, national governments will need to establish national policies and legislation. While these must be designed in, and tailored to, a specific national context, links with regional and international processes will also create forums that help other vulnerable countries to share best practices and learn from each other's experiences.

7. Finance and Technology Transfer

In order to undertake the necessary research and activities to understand, assess, and address loss and

damage, substantial financial resources and adequate technological transfers from developed to developing countries will be required.

Assessing the risk of loss and damage associated with the effects of climate change will require both financial resources and technological upgrades facilitate necessary improvements in data collection and management (Asaduzzaman et al., 2013). For example, satellite data will need to be collected and downscaled, weather stations will need to be built and manned (this includes capacity building) and computers with the capacity for modelling and downscaling complex climate scenarios must be purchased (Ibid). The collection and assessment of new data is especially important for understanding loss and damage because assessments cannot rely solely on historical data as they need to consider long-term climatic changes and account for future generations (Ibid).

In their paper on a range of approaches to address loss and damage, Nishat et al. (2013a) recommended that more funding for research be made available, including both finance and technology transfer for equipment as well as capacity building needed for data collection to support risk transfer mechanisms such as microinsurance. Funding is also imperative for carrying out research into slow onset processes such as sea level rise, specifically with respect to the collection of baseline and long-term data. This will help to identify thresholds, which are essential to understanding what loss and damage means. Such investments are not only necessary, but also financially sound. For instance, the savings that will be generated through avoidance and reduction of loss and damage offsets the costs of investment in risk reduction measures. Nevertheless, it should be noted, that finance and technology transfers need to take place within supportive institutional arrangements to ensure they are being used well and benefit Bangladesh's most vulnerable population groups.

8. Establish a National-level Loss and Damage Mechanism

One of the objectives of the process was to enhance policy uptake in order to help establish a national mechanism to address loss and damage in Bangladesh. To effectively address loss and damage,

national governments such as Bangladesh will have to build on existing policy, legal, regulatory and financial structures, and create new ones if necessary. This should be undertaken by mainstreaming loss and damage into policy areas such as planning, finance, urban and rural development, environmental management, climate change adaptation, and disaster risk management, among others. Most importantly, strengthening existing frameworks and institutions will facilitate the implementation of current and new policies and programmes that contribute to addressing loss and damage.

This could be achieved through the establishment of a national-level loss and damage mechanism. At COP 18 in Doha, it was decided that institutional arrangements to address loss and damage within the UNFCCC will be established at the upcoming COP 19 in 2013. While these challenging global negotiations on loss and damage are taking place, loss and damage is already occurring at the local level. Therefore, Bangladesh cannot afford to wait for international guidance, but should instead seek to inform international processes through national action. Shamsuddoha et al. (2013a) suggest that such a national-level loss and damage mechanism would not have to be newly created, but could be comprised of existing technical and policy entities within strategically important ministries such as the MoEF, Ministry of Planning, and Ministry of Disaster Management and Relief. This type of institutional aggregation would also mean that the new national loss and damage mechanism could facilitate the above-mentioned integration of climate change adaptation and disaster risk reduction, an issue that is high on the global agenda and increasingly becoming a concern for Bangladeshi policymakers.

9. Build on the Knowledge Base

To further the understanding of loss and damage, there is much research that needs to be undertaken. Currently, our knowledge and comprehension of what loss and damage entails is still emerging.

Research needs include tasks that can be accomplished with relative ease, such as the collection of baseline data and evidence from the field. This requires capacity building as well as finance and technology transfer, as outlined above.

However, understanding loss and damage also entails much more complicated tasks, such as determining thresholds that identify when climate change impacts are beyond adaptation. At the moment, where these thresholds lie and how we can agree on them remain open questions. Moreover, research on non-economic losses and damages - such as cultural loss and mental and psychological damage due to forced migration - is needed. These types of losses and damages are difficult to measure and therefore often not included in assessments. However, they have a tremendous impact on vulnerable populations and cannot be ignored.

Additionally, developing an enhanced understanding of slow onset processes will require extensive research undertaken over a span of decades. Specifically, it needs to be understood how slow onset processes and extreme events are linked and predictions of future climate scenarios will need to be improved and downscaled to national and local levels. Ultimately, this will require developing new assessment methodologies (Asaduzzaman et al., 2013) that combine qualitative and quantitative data, integrate downscaled and accurate climate data and take into account socio-economic changes. Consequently, improving how loss and damage is understood is an essential first step towards addressing it as well as safeguarding those people and environments most vulnerable.

The findings detailed in the above paragraphs describe specific areas that require additional research and analysis, as well as clear gaps in policy and practice that will need to be addressed as we confront the problem of loss and damage in the years ahead. These conclusions emerged across a wide variety of different research topics, and represent a holistic assessment of key issues that are inhibiting the ability of Bangladesh to effectively address loss and damage in the national context. However, the same issues are prevalent in many other developing countries that are vulnerable to loss and damage. As such, there are many lessons to be learned from the Bangladesh research that may resonate with other developing and even developed countries. Beyond the research itself, the process that was undertaken to attain these findings also holds some valuable lessons for the pursuit of similar initiatives in other developing countries.

Lessons Learned from the Process

The following section describes what worked as well as areas of improvement and lessons learned over the first phase of work to enhance understanding of loss and damage in Bangladesh. The research is still on-going and is very much a learning by doing process. In addition this research has been specific to Bangladesh and similar research undertaken in other developing – and indeed developed – countries will need to be tailored to national circumstances. That said, we hope that these lessons will help others, who are just beginning to climb up the learning curve that Bangladesh is now mid-way up.

Knowing the Needs in Advance

If designing the project again we would commission a needs assessment to be undertaken simultaneously with the research so that when the research findings were complete and it was time to translate into policy and practice, it was clear what the needs on the ground vis-à-vis addressing loss and damage are. A thorough and systematic needs assessment process can provide concrete evidence to inform well-designed project activities further down the line. A needs assessment would include pre-assessment data collection to determine the existing baseline, followed by a data and gap analysis. Subsequently, it would be possible to outline an action plan for next steps. Our project did not include a needs assessment and it became clear over the course of our work that such an analysis would have been helpful for the second phase of project activities.

Provide Research Support

One of the most significant challenges we encountered was in converting quality research into quality research outputs. As noted in the above section on capacity building, in some instances, differences in academic culture and knowledge communication complicated the process of translating the in-depth knowledge of our researchers into written documents.

For future projects of a similar nature, we believe that quality outputs could be more easily attained by assigning international researchers to work directly with national researchers in order to translate the

extensive knowledge of national researchers into research outputs that are of international quality. Extensive one-on-one meetings and interviews could facilitate this process; joint field visits and structured round-table discussions. Alternatively, this could have been achieved by assigning one staff member to each research paper and have them work with the research team to produce the best quality research outputs possible. In addition, writing and research methodology workshops, especially aimed at young academics, could help improve research outputs.

Engage the Right People

Choosing academics and researchers with standing and credibility is important. The academics we engaged for the research are highly regarded in Bangladesh and have the ear of policy makers. It is important to bring the right people together and to empower key actors, who have the ability to move the loss and damage agenda forward.

In order to target policy makers it is important to have solid research done by key researchers, who have influence and the capacity to instigate and lead the development of new policy and programme initiatives. The ICCCAD-team accomplished this by engaging researchers, who are respected by policy makers and facilitating the overall research process. The team put a lot of work into encouraging dialogue between decision makers and researchers by creating opportunities, both formal and informal, to meet and exchange ideas and information. Our goal was to create a platform from which the researchers can engage with decisions makers to help them make sound decisions that will serve to both reduce and address loss and damage in Bangladesh. Ultimately, we recognised that the research needs to have practical results and one of the best ways of doing this is to engage with people, who already have standing with key policy makers.

Build Social Capital

Throughout the last year, our research team has worked consistently to build social capital by actively expanding our networks and creating alliances with key stakeholders, especially those in government agencies. While efforts to maintain and broaden our network required significant time and energy, these actions have had a variety of tangible and intangible benefits for our work.

In many instances, new and additional information on our research topics was brought to our attention by contacts we met at various meetings, lectures and other functions. Another benefit of a building a broad network, and cultivating a reputation in an evolving area of climate change research, was that we were frequently referred to national and international experts, who were able to provide valuable insight into our work. Finally, perhaps the most important outcome of our efforts to build social capital was that our network enabled us to secure meetings with high-level officials that would have been virtually impossible without a personal connection.

In our view, decision makers ultimately need support from knowledgeable experts in order to implement effective policies and programmes that have a concrete and positive impact on the ground. Building a broad network, and making specific connections with policy makers, is an important part of facilitating more informed decisions.

Learning Takes Time

Over the past year, the researchers and stakeholders involved with the research in Bangladesh have embarked on a journey that involved a steep learning curve. We made use of existing forums such as bi-monthly columns in a prominent English daily newspaper, established professional and academic networks and relationships with key individuals. That said, raising the awareness of key stakeholders and creating a common understanding of what actions are required to address loss and damage in Bangladesh only occurred after significant investments of time and energy.

The Loss and Damage in Vulnerable Countries Initiative was initiated by key individuals who continued to champion both the global and national work throughout the project phase. However, shortly after the research phase ended one of these champions left the government, leaving a significant gap. We are now engaging others in the MoEF in order to obtain the buy-in required to build on the knowledge base and translate the research into policy and practice. This experience has shown how important it is to foster relationships with champions while building supportive networks.

We are now advancing to a “learning by doing” stage in which research will be undertaken that will ultimately culminate in the development of pilot projects.

Have Realistic Expectations

In any research project that seeks to build capacity, it can be difficult to balance the work that is needed to facilitate learning opportunities with the actions that are required to generate quality outputs at the end of this process. While it may be possible to significantly enhance capacity and generate world-class research products, accomplishing both goals often requires an adjustment of expectation on both sides of this spectrum.

Though the researchers we engaged in Bangladesh were prominent researchers in the field of climate change and related areas of expertise, the topic of loss and damage was entirely new to them. Accordingly, additional time and energy had to be expended to allow researchers to understand these concepts and translate their existing knowledge towards this issue. Additionally, as a result of different capacities with respect to the development of written research outputs, significant effort was also required from those guiding the research process to assist with the development of research products.

Therefore, we would advise those undertaking similar research projects to undertake a comprehensive assessment of existing capacities and capacity building requirements in the formulation of project objectives.

Collaborate and Cooperate

In hindsight, the project would have also benefitted from additional consultation within the team, discussing the research in collaboration with one another to stake out the boundaries of the research initiative, particularly given the newness of this topic. We had regular team meetings and discussed the research on a continuing basis, but did not take the time to adequately deconstruct each paper. The researchers have since communicated that a thorough discussion of the scope and terms of reference of each paper would have been helpful, as

loss and damage was an entirely new concept to them at the onset of the research.

Leave Time for Discussion

One of the issues we encountered with the workshops was the lack of time available for open discussion. If we were to design the project again, we would reduce the time dedicated to the inaugural sessions and/or lengthen the workshops to be a full day to leave more time for discussion. The feedback from the discussions would then be incorporated to a greater extent into the research.

Plan Ahead and Ensure Adequate Resources are in Place

One of the biggest challenges associated with the process stemmed from the fact that we underestimated the amount of resources it would take to carry out the project. Initially a full-time coordinator was not in place, but it became clear early on that the dedication of one full-time staff member was needed. Overall, a more in-depth level of engagement than originally envisioned was needed to ensure that the process was successful, and would deliver the type of outputs and relationships that would ultimately facilitate the translation of this work into government policy and practice. We would advise those undertaking similar projects to ensure there are adequate resources to hire enough staff to take on the work associated with coordinating a large research project and engaging with a wide range of stakeholders.

Key Questions for Policy Makers

The process to understand loss and damage in Bangladesh began when the very idea of loss and damage was still confusing to many. However, it is now over two years since the project was conceived, a year and a half since it was incepted and we now have the luxury of hindsight. We would recommend that before embarking on a similar process, policy makers in other developing countries take the time to consider some key questions included below.

What does loss and damage mean in your own national context?

As elucidated above, it is not necessary to agree on a definition of loss and damage in order to proceed with research to better understand and develop approaches to address the losses and damages being incurred by communities both today and in the future. However, it is important to understand how communities are being affected by climate change impacts. One of the issues being grappled with currently in Bangladesh is the need to develop a common methodology to assess the risk of loss and damage. While an entirely new methodology may not need to be developed, it will be necessary to tailor current methodologies to national contexts in order to develop a better understanding of how loss and damage is being experienced now and what impacts may be incurred in the future.

What are the gaps in current policies for addressing loss and damage?

Many developing countries have already developed and implemented extensive policies to address climate change impacts. While some losses and damages can be addressed by current policies, others will need additional approaches, especially those that will not ultimately be addressed by adaptation strategies. In addition, some policies and programmes will need to be scaled up in order to reach wider segments of the population. In order to determine how to best address loss and damage, it is important to first determine the status quo vis-à-vis policies and approaches.

How can cross-sectoral collaboration be enhanced to best address loss and damage?

One of the issues being discussed at the international level in the global climate change negotiations is the need to address loss and damage in a comprehensive and holistic way. At the national level, developing and implementing approaches to address loss and damage will require cooperation and collaboration of a number of line ministries. Policy makers will need to determine how to best facilitate this process. In Bangladesh, discussions are underway to create a national mechanism that would involve representatives of several ministries, who would engage in discussions informed by research and eventually implement pilot projects to test mixes of

approaches to address loss and damage at multiple levels and across relevant sectors.

How can slow onset processes be addressed?

Another issue being grappled with at the international level is how approaches to address slow onset processes can be developed. In some cases, policies to promote livelihood diversification may be adequate, but in others transformational approaches will be needed, such as policies that facilitate migration and create economic opportunities promoting resilience. While slow onset processes may seem far off for many developing countries, for others they are already being incurred and thus more research must be undertaken on how to address them in each national context.

How is vulnerability to climate change created and how can it be reduced?

One of the issues that was raised by stakeholders at almost every stakeholder workshop was the fact that vulnerability is a result of a range of factors, one of which is governance. In the research undertaken as part of the Bangladesh process it was found that corruption plays a role in reducing the effectiveness of some government policies, especially risk retention approaches like social safety nets. Thus, policy makers will have to scrutinise their own role in heightening the vulnerability of communities to loss and damage. Line ministries will have to work together and in collaboration with other stakeholders to increase efficiency and better target policies at those who are most vulnerable.

Next Steps

The research undertaken in Bangladesh revealed some of the policy gaps and needs for improving the way in which loss and damage is assessed and addressed in Bangladesh. The next steps involve building on that research while increasing the engagement of policy makers and other stakeholders with the aim of translating the research into policy and practice.

Over the past 18 months the discussions on loss and damage have led to the conclusion that addressing loss and damage comprehensively will require an institutional framework that integrates DRR and CCA and facilitates cross-sectoral collaboration – or a “national mechanism”. As part of the next phase of work ICCCAD plans to undertake a scoping study to evaluate the possibilities for establishing a national institutional framework to address loss and damage in Bangladesh. The study will answer the following questions:

1. What are the most appropriate national level institutional arrangements to improve Bangladesh’s policy, programmatic, resources and technical capacities to assist populations affected by loss and damage seamlessly encompassing both climate change and disaster?
2. What are the appropriate methods and indicators to assess the L&D to establish management and as appropriate insurance and/or compensation in the different hazard zones incorporating climate change and disasters?
3. What are the potentially viable integrated national, sectoral, and local interventions to address the L&D?

The outputs of the research will feed into an expert group consisting of high-level policymakers that will be established to discuss how loss and damage can be better assessed and addressed in Bangladesh – including through a national institutional framework. The aim is to facilitate cross-sectoral collaboration while involving key decision makers with knowledge of policy processes in decisions of what institutional kind of institutional arrangements would work best in the national context of Bangladesh. In addition a needs assessment will be conducted to better understand how the needs of vulnerable individuals and communities at risk of loss and damage from a spectrum of climatic processes can be best met. The results of the needs assessment will also be fed into the discussions of the expert group to highlight the needs on the

ground and to help ensure that the voices of communities are heard.

With the upcoming decision on institutional arrangements to address loss and damage at the international level countries will need to consider how they will implement policies and institutions to do so at the national level that link to both local and the global processes.

Conclusion

Over a thirteen-month period the loss and damage agenda in Bangladesh progressed significantly. ICCCAD and its partners played a significant role in moving the issue forward. As a result, Bangladesh is now poised to enter a new phase of work on loss and damage, which will consist of the establishment of a national working group on loss and damage and further research – including a needs assessment and the eventual implementation of pilots. The project has reached a level of sustainability that has taken it beyond what was originally envisioned. In many ways, the level of buy-in from national researchers, climate change adaptation and development practitioners as well as government officials significantly exceeded our expectations, and has ensured that the loss and damage process will continue to develop in the years ahead. However, it is a process that still needs guidance and stewardship, which will require additional and sustainable funding and human resources to maintain the momentum that has been created.

Many of the key findings reflected in the research suggest the revision of current policies or the development of new policies and programmes to address loss and damage. This will require collaboration across sectors and levels – both vertically and horizontally – of government, academia and civil society. In addition, loss and damage will bring impacts the likes of which humans have not yet seen. Addressing the resulting loss and damage will necessitate new ways of thinking and doing. Consequently, new assessment and data collection methodologies will have to be developed and substantial investments in human, financial and technical resources are required. In addition, more attention will need to be paid to non-

structural and transformative approaches that can directly improve the livelihoods of the most vulnerable population groups. However, investments will only be used well if loss and damage is eventually mainstreamed into policy and policy. To this end, a national-level loss and damage mechanism, that can inform national as well as global politics, should be established in Bangladesh. Such a mechanism could also play an important role in coordinating the research that is still needed to understand various aspects of loss and damage. For example, further research is required to define loss and damage thresholds, understand slow onset processes and particularly their relationship with extreme events as well as measuring and quantifying non-economic and intangible losses.

Recent events such as Hurricane Sandy in the US have shown that loss and damage from the impacts of climate change is not a phenomenon unique to developing countries. There is a lot that can be learned by developed countries from developing countries and likewise. Addressing loss and damage at a global scale will require collaboration and cooperation. Key lessons learned from the process in Bangladesh include an emphasis on engaging with key actors, who can influence policy, providing research support to ensure quality research products and building social capital by connecting with key stakeholders within and outside of the country,

The Bangladesh component of the Loss and Damage in Vulnerable Countries Initiative has yielded substantial new research, and laid a foundation for the advancement of efforts to assess and address loss and damage in the national context. The work that was undertaken has helped to expand national knowledge networks, and substantially increase awareness among policy makers about this emerging issue. It is hoped that national-level decision-makers can leverage the research and connections that were established towards an informed and substantive contribution to the formulation of international arrangements to address loss and damage.

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The Loss and Damage in Vulnerable Countries Initiative

Accepting the reality of unmitigated climate change, the UNFCCC negotiations have raised the profile of the issue of loss & damage to adverse climate impacts. At COP-16, Parties created a Work Programme on Loss and Damage under the Subsidiary Body on Implementation (SBI). The goal of this work programme is to increase awareness among delegates, assess the exposure of countries to loss and damage, explore a range of activities that may be appropriate to address loss and damage in vulnerable countries, and identify ways that the UNFCCC process might play in helping countries avoid and reduce loss and damage associated with climate change. COP-18, in December 2012, will mark the next milestone in furthering the international response to this issue.

The “Loss and Damage in Vulnerable Countries Initiative” supports the Government of Bangladesh and the Least Developed Countries to call for action of the international community.

The Initiative is supplied by a consortium of organisations including:

Germanwatch

Munich Climate Insurance Initiative

United Nations University – Institute for Human and Environment Security

International Centre for Climate Change and Development

Kindly supported by the Climate Development and Knowledge Network (CDKN)

For further information: **www.loss-and-damage.net**

International Centre for Climate Change and Development (ICCCAD)

Based in the Independent University, Bangladesh (IUB), the International Centre for Climate Change and Development’s aim is to develop a world-class institution that is closely related to local experience, knowledge and research in one of the countries that is most affected by climate change. ICCCAD supports growing capacity of Bangladesh stakeholders, as well as enabling people and organizations from outside the country to benefit from training in the field, where they are exposed to the adaptation “experiments” and increasing knowledge. Through the expertise and research outputs of ICCCAD and its local partners, international organizations will be able to continue to share and transmit knowledge of climate change and development challenges around the world for the benefit of other LDCs, and their governments, donors and international NGOs. ICCCAD has begun running regular short courses for NGOs, donors, the media, government staff, private sector, etc. As well as initiating courses for local participants and Bangladeshi stakeholders, it provides tailor-made courses for organizations and departments that are seeking to enhance their capacity in regard to climate change.

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