

# **Establishing Links between Disaster Risk Reduction and Climate Change Adaptation in the Context of Loss and Damage**

## **Policies and Approaches in Bangladesh**

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## Acronyms

|        |                                                                         |
|--------|-------------------------------------------------------------------------|
| BCCRF  | Bangladesh Climate Change Resilience Fund                               |
| BCCSAP | Bangladesh Climate Change Strategy and Action Plan                      |
| BCCTF  | Bangladesh Climate Change Trust Fund                                    |
| CCU    | Climate Change Unit                                                     |
| COP    | Conference of the Parties                                               |
| CSDDWS | Committee for Speedy Dissemination of Disaster Related Warning/ Signals |
| DoDM   | Department of Disaster Management                                       |
| DMB    | Disaster Management Bureau                                              |
| DMTATF | Disaster Management Training and Public Awareness Building Taskforce    |
| FPOCG  | Focal Point Operation Coordination Group                                |
| HFA    | Hyogo Framework for Action                                              |
| IPCC   | Intergovernmental Panel on Climate Change                               |
| LDC    | Least Developed Countries                                               |
| MoDMR  | Ministry of Disaster Management and Relief                              |
| MoEF   | Ministry of Environment and Forests                                     |
| MoP    | Ministry of Planning                                                    |
| NAPA   | National Adaptation Programme of Action                                 |
| NDMC   | National Disaster Management Committee                                  |
| NGOCC  | NGO Coordination Committee on Disaster Management                       |
| NPDM   | National Plan for Disaster Management                                   |
| SAARC  | South Asian Associated for Cooperation                                  |
| SBI    | Subsidiary Body for Implementation                                      |
| SIDS   | Small Island Developing States                                          |
| SOD    | Standing Order on Disasters                                             |
| UNFCCC | United Nations Framework Convention on Climate Change                   |
| UNISDR | United Nations International Strategy for Disaster Reduction            |
| UNIDNR | United Nations International Decade for Natural Disaster Reduction      |

## Executive Summary

The overarching aim of this paper is to examine the challenges of addressing loss and damage through national institutional arrangements that integrate disaster risk reduction (DRR) and climate change adaptation (CCA) in Bangladesh. As DRR and CCA share many aims and methodologies, greater synthesis and coordination between these two fields will help to eliminate redundancy, increase cost-effectiveness and leverage the respective advantages of each.

*...climate change will bring a range of impacts that affected populations will not be able to adapt to*

This will be increasingly important in the years ahead, as climate change will bring a range of impacts that affected populations will not be able to adapt to. Therefore, a policy and institutional framework that takes an integrated approach to facilitating adaptation (where possible) and addressing loss and damage (where unavoidable) by combining the theory and practice of DRR and CCA will likely help reduce loss and damage and build climate resilient communities. To this end, this paper analyses DRR and CCA policies, strategies, institutions and approaches and identifies areas where greater synergy may be achieved for addressing loss and damage in the national context of Bangladesh.

At the global level, responsibilities on DRR and CCA have been established under the Hyogo Framework for Action (HFA) and the United Nations Framework Convention on Climate Change (UNFCCC), respectively. Developed in 2005, the HFA was the first plan that emerged at the international level, which explained, in detail, steps that needed to be taken by different actors and sectors to effectively reduce disaster-related losses (UNISDR, 2013). While the UNFCCC was originally developed in 1992 to prevent “dangerous” anthropogenic interference with the climate system” (UN, 1992, Article 2), it has since expanded in scope and now includes CCA as a major area of focus. Given that the HFA and the UNFCCC have developed distinct institutions for dealing with DRR and CCA, respectively, at the global level, it will be a challenge to develop institutional arrangements at the local and national

levels to address loss and damage from climate change impacts and link to these international institutions.

Over the years, Bangladesh has made significant progress on both DRR and CCA efforts, developing extensive experience on DRR and post-disaster response and creating national strategies and action plans to address climate change. Bangladesh has a comprehensive range of tools on DRR, both at the national and local levels. At the national level, the National Plan for Disaster Management 2010, the Standing Order on Disasters and the National Plan for Disaster Management are among current policies and plans to address disaster risk reduction. Meanwhile, the Bangladesh Climate Change Strategy and Action Plan, the Bangladesh Climate Change Trust Fund and the Bangladesh Climate Change Resilience Fund are the main strategies to address CCA at the national level. Progress on each front is encouraging in its own right, but with respect to facilitating greater collaboration and cooperation between these two areas – administered by the Ministry of Disaster Management and Relief (MoDMR) and the Ministry of Environment and Forests (MoEF), respectively – these legislative and bureaucratic “silos” may prove to be a hindrance.

Despite clear challenges, stakeholders from both the DRR and CCA communities have emphasised the importance of linking DRR and CCA to develop a comprehensive approach to address loss and damage. As a country experiencing loss and damage from a wide range of climate impacts – from extreme events to slow onset processes – Bangladesh is beginning to grapple with the challenges of linking DRR and CCA in a new framework to address loss and damage. This paper will provide a road map for future work towards bridging this divide.

In order to effectively address loss and damage, this paper recommends that the following steps be undertaken:

1. Develop a comprehensive policy on the integration of DRR and CCA to address loss and damage from the impacts of both extreme events and slow onset processes;
2. Establish a policy body under the Ministry of Planning (MoP) and technical bodies at both the MoEF and the MoDMR, to serve as knowledge hubs and to provide expertise in DRR and CCA respectively to the loss and damage policy wing of the MoP;

3. Integrate DRR and CCA in a multi-level institutional framework to address loss and damage from both extreme events and slow onset processes under a common mechanism;
4. Strengthen and enhance the capacity for mainstreaming loss and damage into national planning processes and develop vertical and horizontal linkages between sectors and institutions working in areas of development to ensure climate resilient development; and
5. Obtain accreditation for the existing National Funding Entities to become National Implementing Entities in order to access support from the international funding mechanisms—both within and outside the UNFCCC - to address loss and damage including through adaptation, mitigation, technology and capacity building.

*...historical emissions  
have “locked in” a certain  
level of climate change  
that will bring  
unavoidable impacts...*

Implementing these steps will provide Bangladesh with a comprehensive framework under which to begin developing and implementing approaches to address loss and damage that go beyond DRR and CCA. It is now widely accepted that historical emissions have “locked in” a certain level of climate change that will bring unavoidable impacts (UNFCCC, 2012). Thus, though DRR and CCA should continue to be pursued, approaches to address unavoidable loss and damage will need to be implemented simultaneously – and those DRR and CCA approaches that already exist will need to be scaled up. There is no one size fits all approach to address loss and damage. Instead, a mix of DRR, CCA as well as risk retention and risk transfer approaches - among others – to address residual losses and damages will need to be developed and implemented in conjunction with one another.

## 1. Background

Climate change and its impacts are already inflicting loss and damage around the globe, particularly in the least developed countries (LDCs), small island developing States (SIDS) and African countries (Warner et al., 2012). Given current emission levels and mitigation ambition, loss and damage from climate change impacts – stemming from both extreme events and slow onset processes – is likely to increase. Accordingly, developing effective approaches to address loss and damages is an increasingly urgent task.

*...developing effective approaches to address loss and damages is an increasingly urgent task*

In recent years, the prominence of loss and damage in the global climate change negotiations has grown significantly. The Cancun Agreements, the result of the sixteenth Conference of the Parties (COP 16), held in Cancun in 2010, recognised the need for strengthening international cooperation and expertise to understand and reduce loss and damage associated with the adverse effects of climate change related to both extreme weather events and slow onset processes<sup>1</sup> (UNFCCC, 2011a). The decision established the Work Programme on Loss and Damage under the Subsidiary Body for Implementation (SBI) – a technical body under the UNFCCC. At the thirty-fourth session of the SBI, Parties decided to carry out work on loss and damage under the following three thematic areas:

1. Assessing the risk of loss and damage associated with the adverse effects of climate change and the current knowledge on the same.
2. A range of approaches to address loss and damage associated with the adverse effects of climate change, including impacts related to extreme weather events and slow onset climatic processes, taking into consideration experience at all levels.
3. The role of the Convention in enhancing the implementation of approaches to address loss

and damage associated with the adverse effects of climate change (UNFCCC, 2011b).

### The Doha Decision on Loss and Damage

4. Agrees that comprehensive, inclusive and strategic responses are needed to address loss and damage associated with the adverse effects of climate change;

5. Also agrees that the role of the Convention in promoting the implementation of approaches to address loss and damage associated with the adverse effects of climate change includes, inter alia, the following:

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

9. Decides to establish, at its nineteenth session, institutional arrangements, such as an international mechanism, including functions and modalities, elaborated in accordance with the role of the Convention as defined in paragraph 5 above, to address loss and damage associated with the impacts of climate change in developing countries that are particularly vulnerable to the adverse effects of climate change.

Following a year of expert meetings to further understand approaches to assess and address loss and damage across regions, negotiators met in Doha for the eighteenth Conference of the Parties (COP 18) in 2012 to discuss the role of the Convention – as the UNFCCC is colloquially known – in addressing loss and damage. At this meeting, Parties decided to continue the work programme to enhance understanding of loss and damage (UNFCCC, 2013). In addition, the need for further understanding of slow onset processes, non-economic losses and how loss and damage affects vulnerable segments of the population – among other knowledge gaps – was highlighted (See Box 1).

*...countries will have to develop institutional arrangements to address loss and damage at the national level*

The decisions mandated Parties to establish institutional arrangements – such as an international mechanism – to address loss and damage from the impacts of climate change in

<sup>1</sup> Including sea level rise, increasing temperatures, ocean acidification, glacial retreat and related impacts, salinization, land and forest degradation, loss of biodiversity and desertification.



developing countries at the nineteenth Conference of the Parties (COP 19) in Warsaw, Poland in 2013. However, in order to maximize benefits from institutional arrangements at the international level countries will have to develop institutional arrangements to address loss and damage at the national level.

One such institutional arrangement that would enhance the ability of Bangladesh to address loss and damage from climate change impacts would be the linking of disaster risk reduction (DRR) and climate change adaptation (CCA) at the policy level. However, linking DRR and CCA discourses and approaches in the context of loss and damage will be challenging, for a variety of reasons. This paper analyses DRR and CCA policies, strategies and institutions and identifies possible areas of integration for addressing loss and damage in the national context of Bangladesh.

## 2. Disaster Risk Reduction and Climate Change Adaptation

Climate change and disaster risk interact in two distinct ways. First, short-term climate variability influences the frequency and range of shocks that societies are able to either absorb or adjust to while long-term climate variability can give rise to changes in the productive base of societies, particularly those that are resource dependent (Schipper, 2009). Secondly, climate change is changing the “frequency, intensity, spatial extent, duration, and timing of extreme weather and climate events, and can result in unprecedented extreme weather and climate events” (IPCC, 2012: 7).

*Addressing loss and damage is a new challenge and one that will require new ways of thinking and doing*

Both disasters – be they climate-induced or otherwise created – and climate change impacts negatively affect development outcomes (Schipper and Pelling, 2006; IPCC, 2012). Similarly, the most effective disaster risk reduction and adaptation approaches are those that promote development by increasing participation and integrate different perspectives (IPCC, 2012). Addressing loss and damage is a new challenge and one that will require new ways of thinking and doing. In doing so it is

important to recognise that there are limits to what DRR and CCA can achieve on their own, especially as we are on the path towards an increasingly warmer world. The IPCC suggests that, “limits to resilience are faced when thresholds or tipping points associated with social and/or natural systems are exceeded, posing severe challenges for adaptation” (IPCC, 2012: 20).

While there is agreement about challenges that disasters and climate change pose to development, there is disagreement about how DRR, CCA and development interact (Davies et al., 2009; Mitchell et al., 2010). While some theorists maintain that sustainable development could be viewed as an adaptation strategy others contend that adaptation is in fact a development strategy (Adger et al., 2009). Theories aside, it is clear that the burden of loss and damage will be greatest in those communities and countries that are still struggling to develop (IPCC, 2012). Thus, reducing the underlying causes of vulnerability to climate change is the most effective means of addressing both climate change and disaster risk (Schipper and Pelling, 2006).

### 2.1. Disaster Risk Reduction

DRR is defined as “the systematic development and application of policies, strategies and practices to minimize vulnerabilities, hazards and disaster impacts throughout a society, in the broad context of sustainable development” (UNISDR, 2009b: 10). The goal of DRR is to reduce vulnerabilities and disaster risks through prevention, mitigation, and preparedness (Twigg, 2004). Disaster risk is the potential “disaster losses, in lives, health status, livelihoods, assets and services, which could occur to a particular community or a society over some specified future time period” (UNISDR, 2009b: 9-10) which is a function of the way in which a hazard and the underlying vulnerability of the exposed society interact (Birkmann and Teichman, 2010). The IPCC’s Special Report on Managing the Risks of Extreme Events and Disasters (SREX) defines vulnerability as the “the propensity or predisposition to be adversely affected” (IPCC, 2012: 5). Exposure is the “the presence of people, livelihoods, environmental services and resources; infrastructure; or economic, social or cultural in places that could be adversely affected” (Ibid).

Hazards, potentially damaging events or phenomena, by themselves do not cause disasters (Lavell et al., 2012). Instead, disasters are created by a combination of exposure, vulnerability and hazard risk (Ibid). With enhanced understanding of the

underlying drivers of disasters, which are mostly socio-economic and political in origin (Wisner et al., 2004; Gaillard et al., 2007), the concept of DRR has changed from the previous conception of disasters as mainly “natural events.”

The prominence of DRR on the international agenda arose out of concerns surrounding the rising human and economic costs of disasters and the way in which they were impeding development (Schipper and Pelling, 2006: 31), effectively culminated with the creation of the Hyogo Framework for Action (2005-2015) at the World Conference on Disaster Reduction in 2005. The number of national centres

dedicated to disaster risk management has grown, and efforts are being made to integrate DRR into development plans and policies such as poverty reduction strategy papers (Kuntjoro and Caballero-Anthony, 2010).

There is currently work being done to develop a post-HFA framework for DRR by 2015, based on a request from the General Assembly, based on several resolutions on DRR and discussions at the annual UNISDR Global Platforms on DRR (UNISDR, 2013).

**Table 1. Hyogo Framework for Action (2005 - 2015) (UNISDR, 2007)**

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| The specific objectives | <ul style="list-style-type: none"> <li>➤ Conclude the review of the Yokohama Strategy and Plan of Action with a view to updating the guiding framework on disaster reduction for the 21st century;</li> <li>➤ Identify specific activities aimed at ensuring the implementation of relevant provisions of the Johannesburg Plan of Implementation (JPOI), adopted in 2002 at the World Summit on Sustainable Development (WSSD);</li> <li>➤ Share best practices and lessons learned to support and facilitate disaster reduction within the context of attaining sustainable development, and identify gaps and challenges;</li> <li>➤ Increase awareness of the importance of disaster reduction policies to facilitate and promote the implementation of those policies;</li> <li>➤ Increase the reliability and availability of appropriate disaster-related information to the public and disaster management agencies in all regions, as set out in the relevant provisions of the JPOI (Johannesburg Plan of Implementation).</li> </ul> |
| Commitments             | <ul style="list-style-type: none"> <li>➤ To pursue an integrated multi-hazard approach for sustainable development to reduce the incidence and severity of disasters;</li> <li>➤ To place disaster risk at the centre of our political priorities and policies;</li> <li>➤ To integrate disaster risk reduction in all our development work;</li> <li>➤ To strengthen the capacity of disaster-prone countries to address risk;</li> <li>➤ To invest substantively in disaster preparedness;</li> <li>➤ To reduce the relief-development gap and thereby reduce vulnerability;</li> <li>➤ To enable civil society actors and affected communities to strengthen their resilience to disasters</li> <li>➤ To reduce the gap between what we know and what we do, with the critical ingredient being political commitment;</li> <li>➤ To build on the momentum of this World Conference to accelerate implementation of the Framework for Action</li> </ul>                                                                                       |
| Priorities for action   | <ul style="list-style-type: none"> <li>➤ Ensure that disaster risk reduction is a national and local priority with a strong institutional basis for Implementation</li> <li>➤ Identify, assess and monitor disaster risks and enhance early warning.</li> <li>➤ Use knowledge, innovation and education to build a culture of safety and resilience at all levels.</li> <li>➤ Reduce the underlying risk factors.</li> <li>➤ Strengthen disaster preparedness for effective response at all levels.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

The SREX defines CCA as “the process of adjustment to actual or expected climate and its effects, in order to moderate harm or exploit beneficial opportunities” (IPCC, 2012: 5). The focus on adaptation has increased significantly over the past decade – both in the UNFCCC process and in other fora.

CCA evolved under the domain of the UNFCCC, the forum for global climate negotiations, which arose as a vehicle to stabilise global greenhouse gas emissions through mitigation (Huq and Roberts, forthcoming). Though mitigation is the ultimate objective of the UNFCCC (UN, 1992), there is now a scientific consensus on the fact that our climate is changing, and will continue to, despite efforts to curb emissions (IPCC, 2007). These changes in climatic systems will make adaptation necessary.

As in the international process focused on DRR, Parties to the UNFCCC are currently engaged in discussions to establish a new legally binding agreement to guide international action on climate change from 2015 (UNFCCC, 2013).

### **3. Integrating DRR and CCA to Address Loss and Damage**

A third era has now evolved in response to the recognition that neither mitigation nor adaptation efforts will be enough to avoid loss and damage (Huq and Roberts, forthcoming). Since the establishment of the Work Programme on Loss and Damage under the UNFCCC, focus and interest of Parties, climate change researchers and other actors in further understanding loss and damage has significantly increased. As the body of work conducted on loss and damage begins to expand, it is clear that addressing it in a coordinated and comprehensive manner will require a variety of approaches, which will be aided by the linking of DRR and CCA in policy and implementation.

*A third era has now evolved in response to the recognition that neither mitigation nor adaptation efforts will be enough to avoid loss and damage*

At present, many developing countries have ministries dedicated to disaster management, but climate change is often omitted from the scope of considerations from DRR policies, plans and programmes. Similarly, at the level of implementation and action, climate scientists and adaptation practitioners often do not interact with the disaster risk community – including humanitarian actors (Ireland, 2010). At the international level, a division between these issue areas is equally apparent. Schipper and Pelling (2006) argue that the UNFCCC –despite having a greater impact politically – has a much too narrow scope. With the exception of Article 4.8, which notes the concerns of developing countries “with areas prone to natural disasters” (UN, 1992: 9), the UNFCCC makes little reference to disasters.

#### **3.1. Opportunities for Synergy**

DRR involves activities that reduce exposure to hazards and decrease vulnerability and can include increasing preparedness and good management of land and resources (UNISDR, 2009b).

*...climate change adaptation emphasises a broad range of approaches which allow societies to cope with an uncertain future*

Given the wide impacts of climate change, CCA emphasises a broad range of approaches which allow societies to cope with an uncertain future. At the community level, strategies include improvements to agricultural systems (e.g. crop diversification and the introduction of crop varieties that are resilient to climate impacts such as drought, floods and salinisation); risk assessments; the protection of natural resources; early warning systems; education and awareness measures and the protection of natural resources (UNFCCC, 2006).

Given that both disaster risks and climate change impacts are rising, the need for a coherent response to climate change is increasingly apparent. However, there are still a number of significant challenges to establishing stronger linkages between these two arenas. This analysis will now provide an overview of these challenges within the three categories of divergence between DRR and CCA, developed by Birkmann and Teichman (2010: 172) including:

(1) scales of time and space (2) normative systems and (3) types and sources of knowledge.

### Scales

DRR tends to focus on the local and national levels where impacts are felt, while climate change impacts are often conceptualised as being global in nature (Schipper and Pelling, 2006). In developing countries, local government generally plays a critical role in the management and governance of DRR activities with strong local engagement, but with institutional arrangements that are separate from other areas of governance (Buckle et al., 2010). Thus, DRR has already been embedded in institutions at the local level, which could be used to support CCA (Ibid). In addition, DRR has developed tools and methods that could be utilised by the CCA community – though there needs to be further work to integrate the new approaches to respond to complex problems from the local level to the global level (Turnbull et al., 2013).

*Disaster risk reduction emphasises local level while climate change adaptation has had international focus*

DRR emphasises local level while CCA has had international focus (Birkmann and Teichman, 2010). Similarly, strategies to address climate change impacts are largely developed at the national level (Ibid). The availability of climate data at the local level could facilitate the integration of DRR and CCA strategies (Kuntjoro and Caballero-Anthony, 2010).

There is also incongruence in the time scales of DRR and CCA: the impacts of disasters are generally felt in the short term, while the impacts of climate change will progress over time (Mitchell et al., 2010). Though the aim of DRR strategies is to facilitate sustainable development by reducing risks that present challenges to development, this is not always carried out in practice (Birkmann and Teichmann, 2010). Schipper and Pelling (2006: 33) assert that, “the role played by humanitarian assistance in addressing disaster relief as part of disaster risk management [...] has been associated with dependency and short-term strategies that fail to generate autonomy incentives and ultimately deplete the resource base.”

One reason why DRR is often conceptualised as a short-term strategy is because of the nature of funding that is provided for DRR activities (Ireland, 2010). Given the emphasis of local engagement in DRR, activities are often undertaken by local actors with support from national and international humanitarian actors (Gaillard and Mercer, 2013). As such, DRR activities are often funded by humanitarian donors that are accustomed to providing short-term funding for disaster response (Birkmann, 2010). In addition, many countries only issue permission for aid agencies to work in the short-term, ignoring the importance of developing long-term adaptation strategies to build resilience to extreme events (Ibid). These short-term DRR fixes tend to focus on particular sectors and often involve the building of infrastructure (Satterthwaite, 2011). Conversely, CCA has been primarily driven by the UNFCCC’s global framework for mitigation and adaptation, which prescribes responsibilities to national actors (Pelling and Schipper, 2006).

*Despite the different scales at which DRR and CCA activities are carried out, there is significant potential for greater synergy between DRR and CCA*

Despite the different scales at which DRR and CCA activities are carried out, there is significant potential for greater synergy between DRR and CCA. For example, DRR efforts can provide a foundation for adaptation strategies at the local and national levels, freeing up resources for adaptation efforts focused on the long-term impacts of climate change (Reid et al., 2012). However, more reconciliation between the short-term goals of responding to the immediate consequences of climate events and the long-term goals of adapting to a changing climate is needed (Ireland, 2010).

Finally, there is also a mismatch in the way in which responsibilities for CCA and DRR are allocated at the national level. DRR is frequently the domain of ministries of defence, interior or development, while responsibility for climate change is often delegated to the environment or meteorological ministries (Birkmann and Teichman, 2010). Funding is allocated to these ministries for DRR and CCA



activities that are in line with the mandate of each, a practice which often does not allow for integration (Ibid, 2010).

### Norms

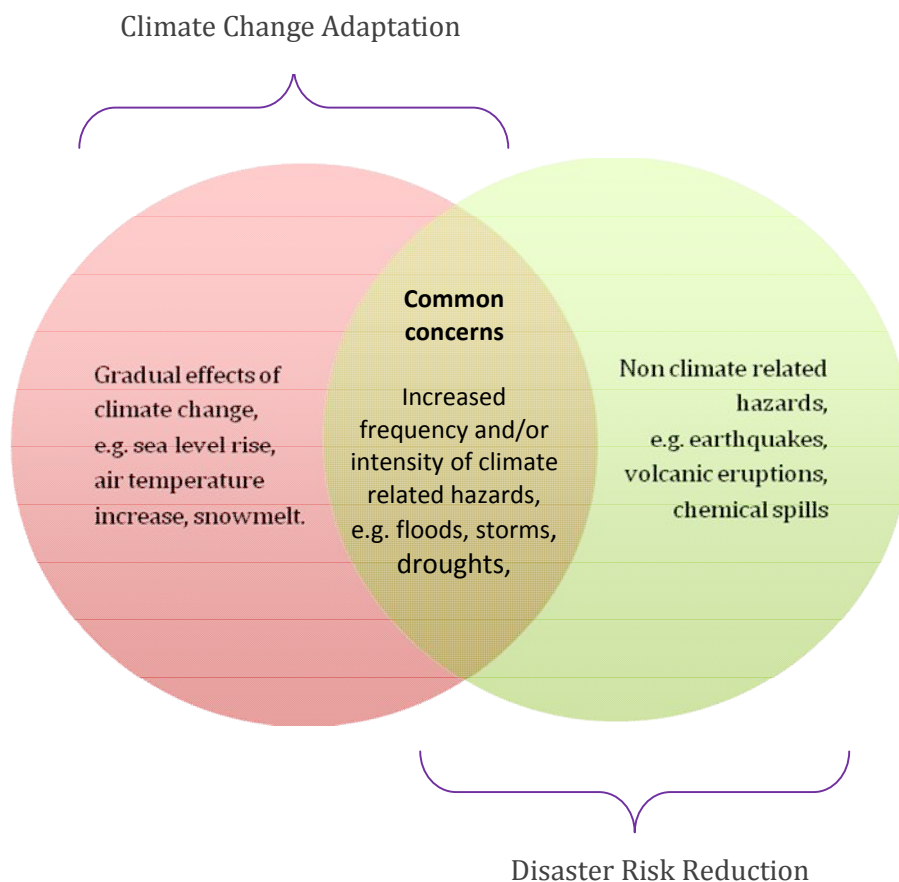
Birkmann and Teichman (2010) assert that, at present, no norms or indicators have yet evolved to help monitor and guide the implementation of adaptation efforts. For example, in the wake of a disaster, instead of reconstructing infrastructure in a way that considers the potential impacts of climate change and promotes adaptation, it is often reconstructed in its former state (de Soto, 2010).

A significant conceptual challenge to linking the two approaches is the fact that there is some disagreement on how these areas fit together: while some maintain that CCA should be mainstreamed into DRR others insist that DRR should be viewed as a cross-cutting theme within CCA (Birkmann and Teichman, 2010).

### Knowledge

Information about climate change is often not communicated in a way that contributes to adaptation efforts on the ground (Adger, 2003). Moreover, in many cases, there is a lack of socio-economic data to help enhance understanding of changing vulnerabilities and facilitate the development of sound adaptation strategies (Birkmann and Teichman, 2010). In addition, there is very little integration between scientific data and local or traditional knowledge (Reid et al., 2012). The integration of knowledge from a variety of sources can enhance the ability of CCA to respond to extreme events (Ibid).

Another reason for the separation of DRR and CCA in theory and practice is uncertainty about the extent to which climate change plays a role in giving rise to disasters (Schipper and Pelling, 2006). However, science is evolving and disaster risk and climate change are beginning to be merged in the academic literature (Ibid).



**Figure 1. Convergence of CCA and DRR (Turnbull et al., 2013)**

In both DRR and CCA, there is a common conceptual understanding of the components of risk and the processes involved in building resilience (Figure 1). While, CCA “requires the re-shaping and re-designing of development, social and economic practices to respond effectively to new or anticipated environmental changes, DRR seeks to influence development decision-making and protect development aspirations from environment related risks” (Mercer, 2010:250). In the context of addressing loss and damage arising from extreme events, there is significant divergence in addressing loss and damage from extreme events.

### 3.2. Gaps between DRR and CCA Integration

While DRR policies and strategies are well established within the international development community (Lewis, 1999; Wisner et al., 2004) and effectively practiced at the grassroots level to address a variety of hazards, they are generally short-sighted, as noted above (Tearfund, 2008).

Disaster preparedness efforts do not adequately account for the changing nature of many extreme events resulting from climate change and post-disaster responses tend to centre on short-term relief rather than long-term resilience (Ibid). CCA-related policies and strategies, in contrast, have not yet been able to effectively translate an ambitious international agenda into practical adaptation actions in climate vulnerable countries (Thomalla et al., 2006; Mitchell and van Aalst, 2008).

Therefore, functional integration requires a more long-term approach in DRR policy and planning and the streamlining of CCA-related activities into more practical, actionable projects.

*... functional integration  
requires a more long-  
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more practical,  
actionable projects*

Additionally, while DRR and CCA share the common goal of reducing vulnerability and building resilience

– albeit on different temporal scales –, historically, each has tended to work within its own specialist community of practice (Birkmann et al., 2009). In terms of how CCA is conducted in practice, this “stand-alone” approach to adaptation focuses on targeting specific climate risks without addressing the underlying factors related to development that make people vulnerable to those risks in the first place (Adger and Kelly, 1999; Cannon, 2000).

Such interventions are likely to be much more successful if they are carried out in consultation and collaboration with DRR and development practitioners as part of a long-term sustainable development strategy (Ibid).

## 4. Integrating CCA and DRR in Bangladesh

### 4.1. DRR at the National Level in Bangladesh

Bangladesh is one of the most disaster-prone countries in the world due its geophysical location, land characteristics, multiplicity of rivers and the monsoon climate variability (Maplecroft, 2010). In addition, the coastal morphology of the country influences the impact of natural hazards, which impedes development (GoB, 2010a). In recognition of this fact, Bangladesh developed a model to provide guidance on DRR and emergency response management efforts to reduce the impact of natural hazards – including the impacts of climate change (Figure 3).

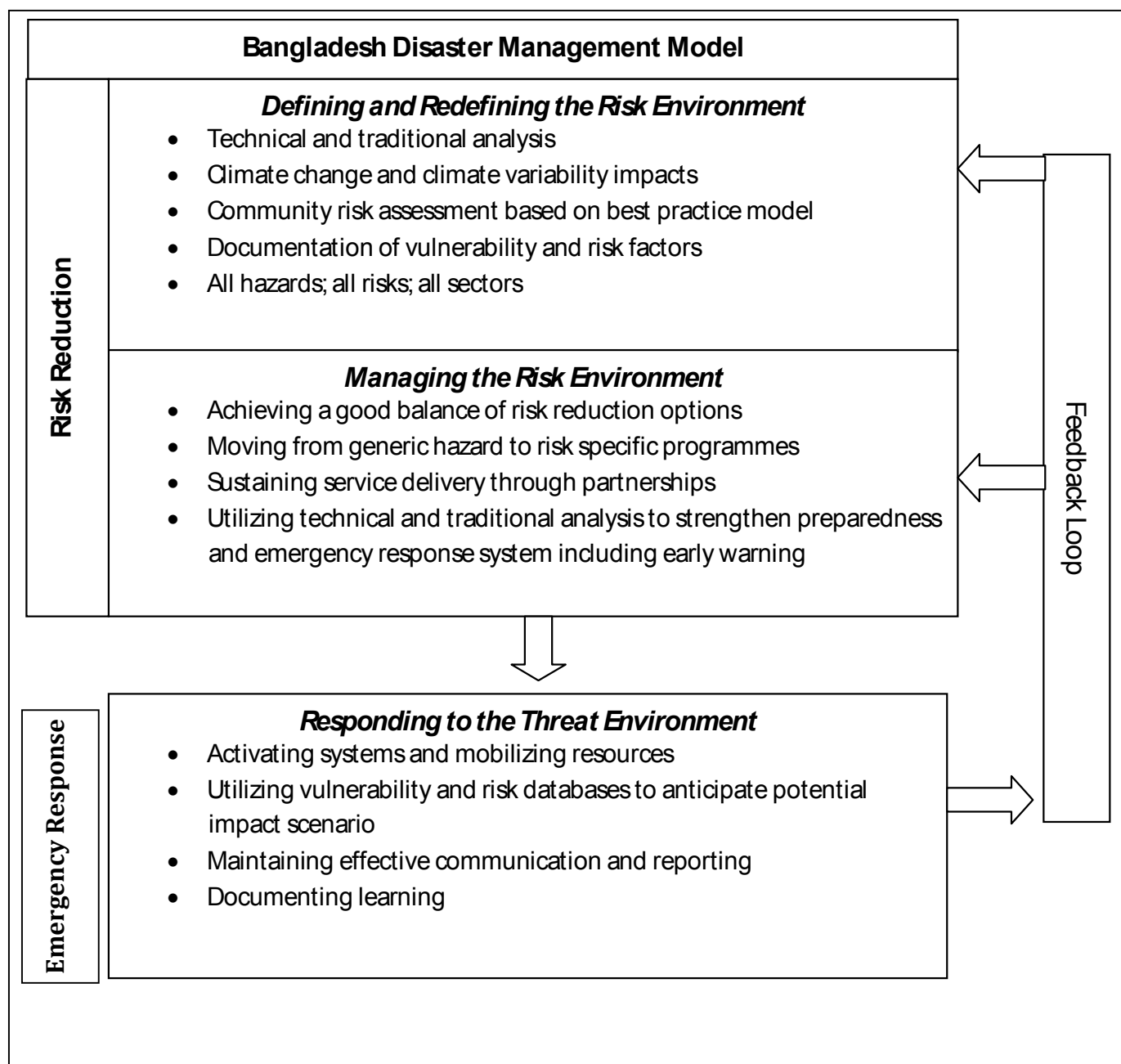
DRR policies and strategies are well established within national development policies in Bangladesh (GoB, 2010a). In 2007, the GoB introduced the Standing Order on Disasters (SOD), which provides guidelines for implementing the Bangladesh Disaster Management Model (GoB, 2010b). The SOD also outlines the roles and responsibilities of various committees, ministries, departments and other organisations involved in DRR (Ibid).

In 2010, the GoB developed the National Plan for Disaster Management (NPDM), which articulates specific DRR responsibilities and roles for all relevant stakeholders and at different levels of the government.

The NPDM provides overall guidance and a legal mandate to carry out DRR strategies, with strategic goals drawn from the South Asian Association for Regional Cooperation (SAARC) Disaster Management Framework (Ibid).

**Table 2. Summary of Characteristics of CCA and DRR (Adapted from Tearfund, 2008)**

| <b>Characteristics</b>                                                                    |                                                                                                                                                   | <b>Area of Development</b>                                                                                                   |
|-------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| <b>Disaster Risk Reduction (DRR)</b>                                                      | <b>Climate Change Adaptation (CCA)</b>                                                                                                            |                                                                                                                              |
| Relevant to all hazard types                                                              | Relevant to climate-related hazard                                                                                                                | Understanding on loss and damage                                                                                             |
| Origin and culture in humanitarian assistance following a disaster event                  | Origin and culture in scientific theory                                                                                                           | Recruiting climate change adaptation specialists from engineering, water and sanitation, agriculture, health and DRR sectors |
| Most concerned with the present – i.e. addressing existing risks                          | Most concerned with the future– i.e. addressing uncertainty/new risks                                                                             | DRR increasingly forward-looking; existing climate variability is an entry point for climate change adaptation               |
| Historical perspective                                                                    | Future perspective                                                                                                                                | Long-term strategy for addressing loss and damage                                                                            |
| Traditional/indigenous knowledge at community level is a basis for resilience             | Traditional/indigenous knowledge at the community level may be insufficient for resilience against types and scales of risk yet to be experienced | Examples in which integration of scientific knowledge and traditional knowledge for DRR provides learning opportunities      |
| Structural measures designed for safety levels modeled on current and historical evidence | Structural measures designed for safety levels modelled on current and historical evidence and predicted changes                                  | Detailed understanding on structural needs for addressing loss and damage from both DRR and CCA perspectives                 |
| Traditional focus on risk reduction and preparedness                                      | Traditional focus on adaptation measures to address vulnerability                                                                                 | Long-term focus on both extreme and slow onset processes                                                                     |
| Community-based process stemming from experience                                          | Community-based process stemming from policy agenda                                                                                               | Lessons learned from best practices of community-based approach                                                              |
| Practical application at local level                                                      | Theoretical application at local level                                                                                                            | Climate change adaptation gaining experience through practical local application                                             |
| Full range of established and developing tools                                            | Limited range of tools under Development                                                                                                          | Detailed understanding on loss and damage                                                                                    |
| Incremental development                                                                   | New and emerging agenda                                                                                                                           | Development of knowledge and expertise on loss and damage                                                                    |
| Political and widespread recognition often quite weak                                     | Political and widespread recognition increasingly strong                                                                                          | Climate-related disaster events more likely to be analysed and debated with reference to climate change                      |
| Funding streams ad hoc and Insufficient                                                   | Funding streams sizeable and Increasing                                                                                                           | DRR community engaging in climate change adaptation funding mechanisms                                                       |



**Figure 2. Disaster Management Model in Bangladesh (GoB, 2010a)**

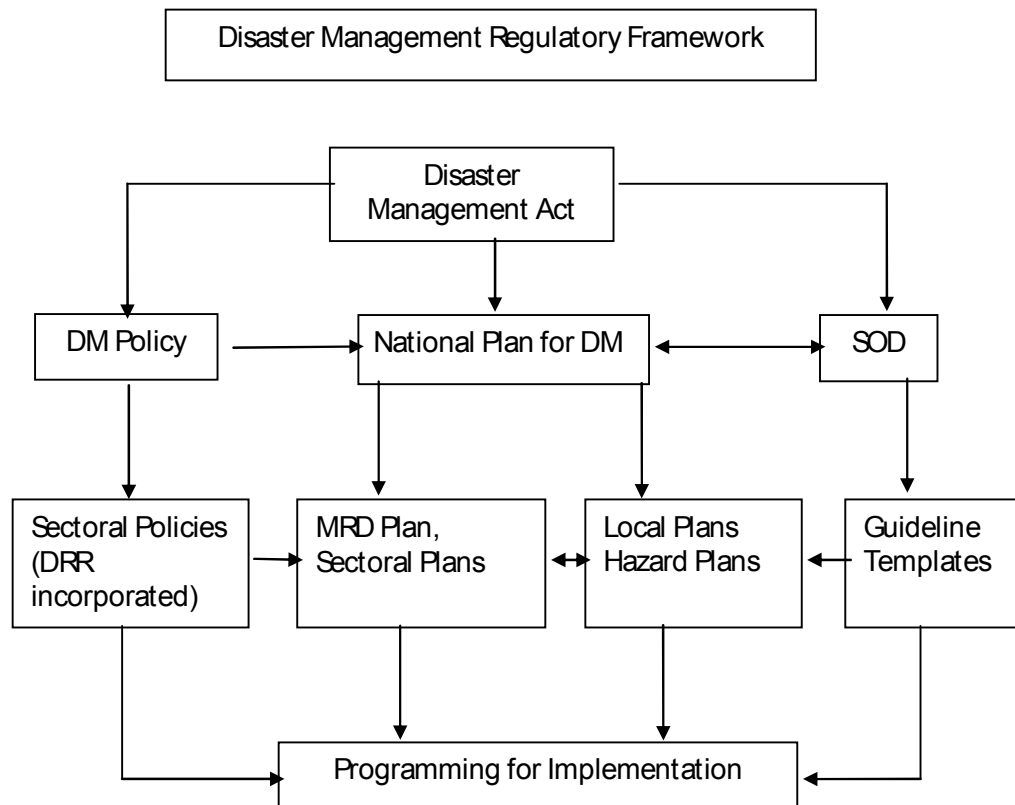
The Act also elaborated roles and responsibilities of all relevant stakeholders in disaster management and laid out punitive measures for non-compliance. To supplement this framework, in 2015, the GoB plans to approve and implement a National Policy for Disaster Management that will bring all of the aforementioned legislation in-line with its post-HFA commitment (GoB, 2012a) (Figure 3).

At the political level, the National Disaster Management Council (NDMC), headed by the Prime Minister, formulates and reviews overall disaster management policies, while the Inter-Ministerial Disaster Management Coordination Committee is responsible for initiating whatever measures are necessary to implement the disaster management

policies and decisions of the NDMC (GoB, 2010a).

Within this framework, the Ministry of Disaster Management and Relief (MoDMR) is the focal point for the implementation of DRR policies and is responsible for coordinating national disaster management efforts across all agencies (Ibid). The Department of Disaster Management (DoDM), housed within the MoDMR, oversees and coordinates all activities related to disaster management from the national level down to the grassroots level (Ibid). The DoDM is also responsible for ensuring that the DRR agenda is mainstreamed into the policies, plans and programmes of other ministries and departments and also coordinates





**Figure 3. Disaster Management Regulatory Framework of Bangladesh (GoB, 2010b)**

research, capacity building, and awareness raising on DRR related activities (Ibid) (Figure 4).

#### **4.2.CCA at the National Level in Bangladesh**

Development plans recognise challenges that climate change poses to development (GoB, 2007). In addition, the All Party Parliamentary Group on Climate Change and Environment – established in 2009 and comprised of 121 Members of Parliament – plays a key role in the planning and implementation of climate risk management activities (Key Informant Interview, 2013). The current government also made a commitment to protect the population of Bangladesh from climate change in its recent election manifesto (Alam et al., 2011).

*Development plans recognise challenges that climate change poses to development*

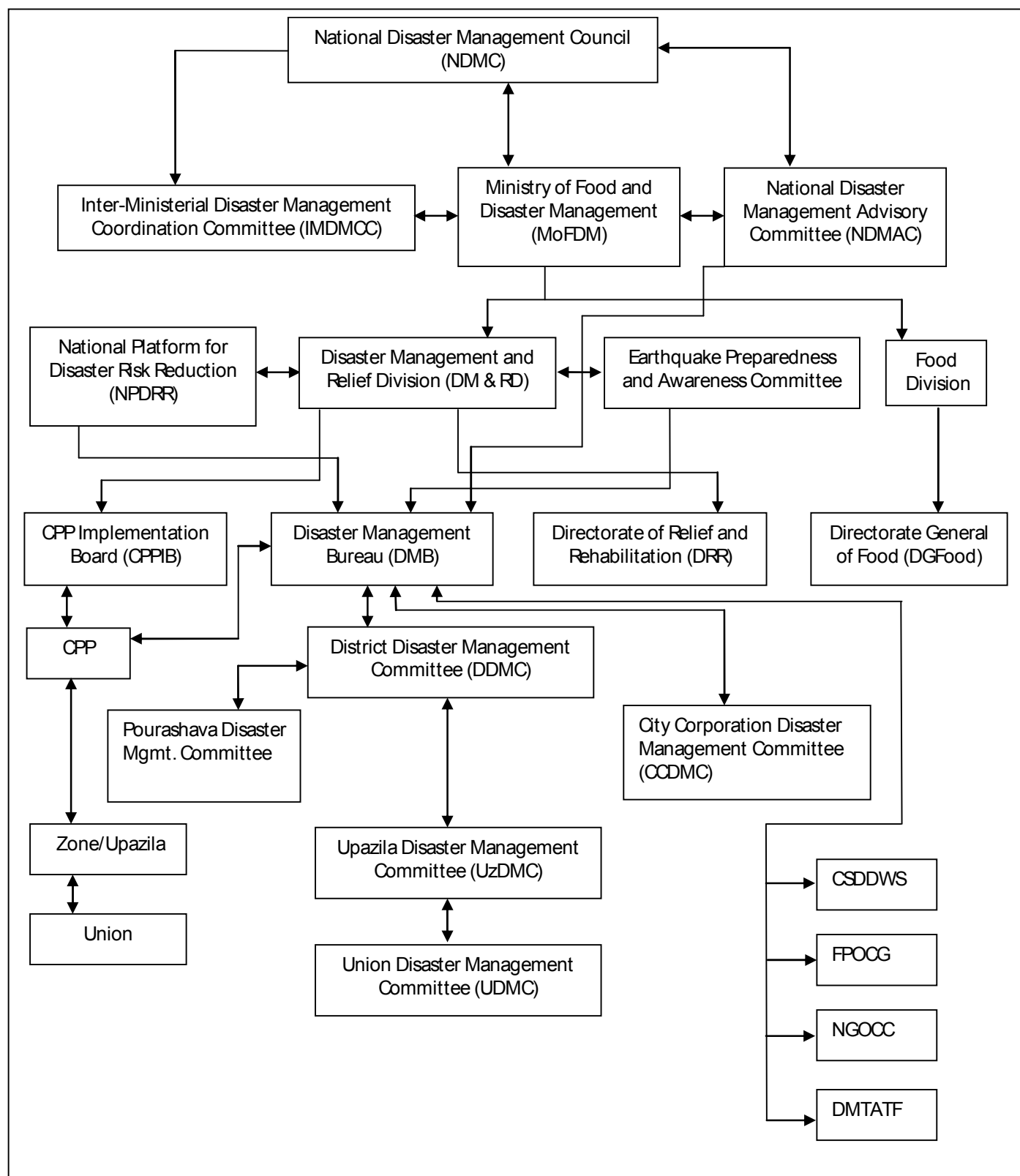
At the policy implementation level, the National Planning Commission integrates climate change into the Annual Development Programme by mainstreaming climate change into development projects in four sectors: agriculture, transport, rural development and water (GoB, 2010a).

Bangladesh was one of the first LDCs to complete its National Adaptation Programme of Action (NAPA) in 2005 – updated in 2009 – which identifies 18 priority adaptation projects (MoEF, 2009). The NAPA process identified negative impacts on agriculture, industry, infrastructure, health, energy

*Bangladesh was one of the first LDCs to complete its National Adaptation Programme of Action*

and resultant direct and indirect effects on employment, income and social security. Thus far, the implementation of the NAPA has been slow; only one project out of a total of 15<sup>2</sup> priority projects identified has received the financial support necessary (through the Least Developed Country Fund) to move forward (Key Informant Interview, 2013).

<sup>2</sup> The NAPA originally submitted to the UNFCCC in 2005 included 15 priority projects. The 2009 revised NAPA included a total of 18 priority projects (nine for immediate-term and nine for medium-term).



**Figure 4. Disaster Management Institutions in Bangladesh (GoB, 2010b)**

In addition, in 2012, the GoB issued its Second National Communications on Climate Change for submission to the Conference of the Parties (COP) to the (UNFCCC) in 2012 and a Technology Needs Assessment report in 2013 to prioritise the

technologies under the Convention (Ibid).

While undertaking the NAPA process, the GoB recognised the need to go further in addressing the impacts of climate change. In 2009, the Bangladesh

Climate Change Strategy and Action Plan (BCCSAP) was developed, which identified six thematic areas – or pillars – for action on climate change including:

1. Food security, social protection and health;
2. Comprehensive disaster management;
3. Infrastructure development;
4. Research and knowledge management;
5. Mitigation and low-carbon development; and
6. Capacity building and institutional development (GoB, 2009)

The BCCSAP proposed an institutional framework for implementation strategies and actions as an integral part of national development policies, plans and programmes including strengthening existing institutions. In addition, the Climate Change Unit (CCU) was established under the MoEF. The CCU facilitate the implementation of the BCCSAP under the overall guidance of the National Environment Committee chaired by the Prime Minister and the National Steering Committee on Climate Change headed by the Minister of the MoEF (Figure 5) The BCCSAP also highlighted the need for cooperation across sectors by identifying the need for climate change focal points in all relevant ministries<sup>3</sup>. It is expected that focal points will provide information to the CCU on sectoral barriers as well as other issues and challenges for CCA.

## *Bangladesh has established two funds to finance climate change activities*

To implement the activities outlined in the BCCSAP as well as other actions aiming to reduce the negative impacts of climate change, Bangladesh has established two funds to finance climate change activities: the Bangladesh Climate Change Trust

Fund (BCCTF) and the Bangladesh Climate Change Resilience Fund (BCCRF) (Khan et al., 2012). The implementation of the BCCSAP requires additional and incremental finance in order to address loss and damage from climate impacts (Key Informant Interview, 2013).

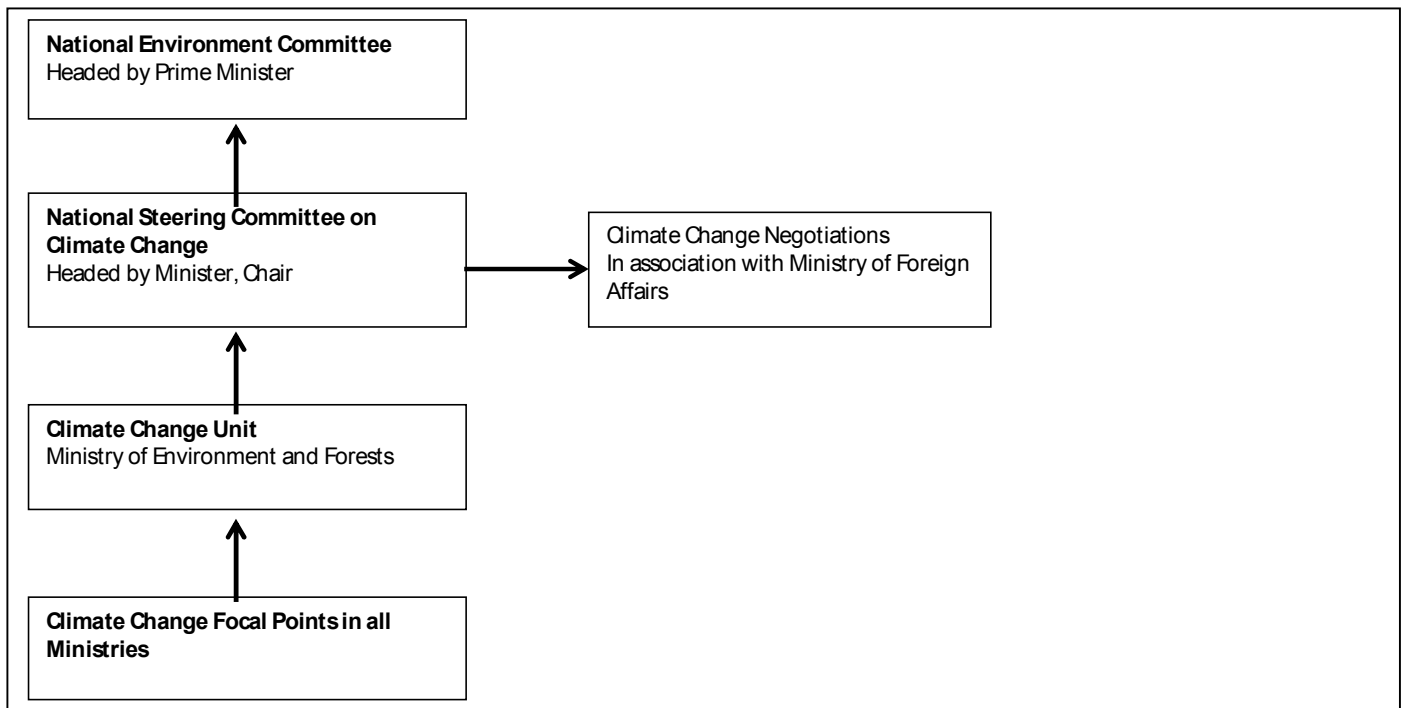
The BCCTF was established by the Bangladesh Climate Change Trust Fund Act, 2010<sup>4</sup> (GoB, 2010) and endowed with a budgetary allocation from revenue flows. Thus far, the GoB has endowed the fund with USD 350 million for the last four fiscal years (2009-2010 to 2012-2013) (Ibid). The BCCTF is being used for the implementation of the BCCSAP by supporting both public sector and NGO projects (66 percent) as well as for emergency relief efforts (34 percent) (TIB, 2012). The Bangladesh Climate Change Trust Fund Act 2010 established a governance framework for the BCCTF (GoB, 2010). The fund is managed by a trustee Board, a technical committee and a sub-technical committee (TIB, 2012).

The Bangladesh Climate Change Resilience Fund (BCCRF), formerly the Multi-Donor Trust Fund, was first conceptualised at the first UK-Bangladesh Climate Conference held in Dhaka in April 2008, at which development partners expressed the urgent need for the establishment of a financial mechanism to address the impacts of climate change (Key Informant Interview, 2013). Following the preparation of the BCCSAP and its launch in September 2008, the UK government pledged USD 114 million for the BCCRF (Ibid). In the years since, Australia, Denmark, the European Union, Sweden, Switzerland and the United States have joined the UK to support the BCCRF (Ibid). Thus far the BCCRF has accumulated USD 170 million for the implementation of the BCCSAP (Ibid). Like the BCCTF, the governance of the BCCRF is also composed of three tiers:

1. An independent governing council to oversees the strategic direction of BCCRF and ensures alignment with the BCCSAP;
2. A management committee to oversee the development of a work programme to ensuring that the BCCRF is implemented in-line with the BCCSAP, and also to consider

<sup>3</sup> So far sixteen focal points have been established: Ministry of Environment and Forests, Ministry of Water Resources, Ministry of Agriculture, Ministry of Land, Ministry of Fisheries, Local Government Engineering Department, Ministry of Local Government and Rural Development, Ministry of Education, Ministry of Women Affairs, Ministry of Disaster Management, Ministry of Food and Relief, Ministry of Foreign Affairs, Ministry of Finance, Economic Relations Division, Ministry of Health, Power Department, Ministry of Mineral Resources (Key Informant Interview, 27th February 2013).

<sup>4</sup> The Bangladesh Climate Change Trust Fund Act is not yet available in English but can be accessed in Bangla at: [http://www.moef.gov.bd/Climate%20Change%20Unit/Climate%20Change%20Trust%20Act\\_2010.pdf](http://www.moef.gov.bd/Climate%20Change%20Unit/Climate%20Change%20Trust%20Act_2010.pdf).



**Figure 5. Climate Change Action Plan Organisation Chart (GoB, 2009)**

- grant requests submitted by various line-ministries and other eligible institutions; and
3. A secretariat that is responsible for the day-to-day management of the BCCRF and to provide support to the Governing Council and the Management Committee. Additionally, the World Bank is involved as a trustee of the Fund to ensure due diligence requirements (including fiduciary management, transparency and accountability) and ensure that projects are implemented with due regard to economy, efficiency and effectiveness (TIB, 2012).

The BCCTF and the BCCRF support the implementation of the BCCSAP through funding government and non-government projects addressing the adverse impacts of climate change, particularly those outlined in the BCCSAP. These national funding entities could be used to establish the financial architecture to implement activities to address loss and damage in Bangladesh as well as establishing linkages with international institutional arrangements that will be eventually developed under the UNFCCC.

#### **4.3. Policy and Institutional Frameworks on DRR and CCA in Bangladesh**

Even though climate change affects the activities of more than 35 line ministries, it is still officially

considered to be an issue that falls solely within the purview of the MoEF (Key Informant Interview, 2013). Thus, all of the key departments responsible for addressing climate change fall under the responsibility of the MoEF. This includes:

1. The Department of Environment, which houses the Climate Change Cell;
2. The Department of Forests;
3. The Climate Change Unit (recently renamed as Climate Change Trust); and
4. The Ministry of Food and Disaster Management (MoFDM), recently re-named the Ministry of Disaster and Relief (MoDMR), housing the Comprehensive Disaster Management Programme (CDMP) (Key Informant Interview, 2013).

The MoDMR and the MoEF do not currently coordinate to align DRR and CCA policies, programmes and projects (Ibid). However, the MoDMR implements the Comprehensive Disaster Management Programme (CDMP), one of the largest initiatives ever implemented in the country to deal with disaster management, which is currently undertaking efforts to “harmonise” DRR and CCA in its work to reduce disaster risk (Ibid). In addition, the CDMP has begun to recognise the importance of addressing loss and damage in its agenda (Ibid).

Over the years, both ministries have developed bodies of knowledge, experience and expertise in their respective arenas. In order to better coordinate with one another and integrate approaches on DRR and CCA to address loss and damage, existing institutions such as the National Environment Committee and National Disaster Management Council could form a joint-coordination mechanism and provide specific guidance to relevant authorities. Considering the high political level involvement in these national committees and councils, coordination activities can be very effective in establishing a feedback loop within these institutional frameworks.

#### 4.4. Linking DRR and CCA in Bangladesh

Climate change impacts – those arising from both extreme events and slow onset processes – are inflicting loss and damage in both developed and developing countries, but especially in disaster-prone, developing countries like Bangladesh (Warner et al., 2012). Global responsibilities on DRR and CCA have been established under the HFA and the UNFCCC respectively.

*DRR and CCA at the local level could be linked to international institutional arrangements*

DRR and CCA at the local level could be linked to international institutional arrangements. However, as discussed above, the integration of DRR and CCA is particularly challenging because the two streams have developed separate and distinct theories, practices and institutions (Figure 6).

*...there needs to be greater consideration of how local development planning processes can be integrated into national planning and response coordination*

At the national level, Bangladesh has developed well-established – but separate – institutional

frameworks to deal with DRR and CCA, from the national to the local level (Key Informant Interview, 2013).

At present, the country's DRR plans and institutions are more developed and robust compared to those of CCA, with well-established committees, at several levels of government, to manage and coordinate pre-disaster preparedness and post-disaster response measures. In contrast, rather than concentrating on planning and implementing CCA activities, the various public sector entities working on CCA issues in Bangladesh are focused on mainstreaming policy and coordinating financing from various national and international sources. In both cases, however, there needs to be greater consideration of how local development planning processes can be integrated into national planning and response coordination (Ibid).

*There is a natural convergence between DRR and CCA in their mutual interest in addressing loss and damage arising from extreme events*

There is a natural convergence between DRR and CCA in their mutual interest in addressing loss and damage arising from extreme events. As noted above, the GoB has a very strong policy and institutional framework for responding to extreme events, but does not adequately account for how slow onset climate change processes will induce loss and damage and affect risks and vulnerability to extreme events over time.

To help minimise the risk of loss and damage – and ultimately reduce the loss and damage that is incurred – guidelines should be established to incorporate CCA perspectives and approaches into DRR institutional frameworks. Although both DRR and CCA plans and strategies acknowledge the importance of mainstreaming DRR and CCA into national planning efforts, their disparate bureaucratic bases – within the MoDMR and the MoEF, respectively – make it difficult to coordinate on issues where mandates and interests overlap.



### Global to Local Policy Framework on DRR and CCA

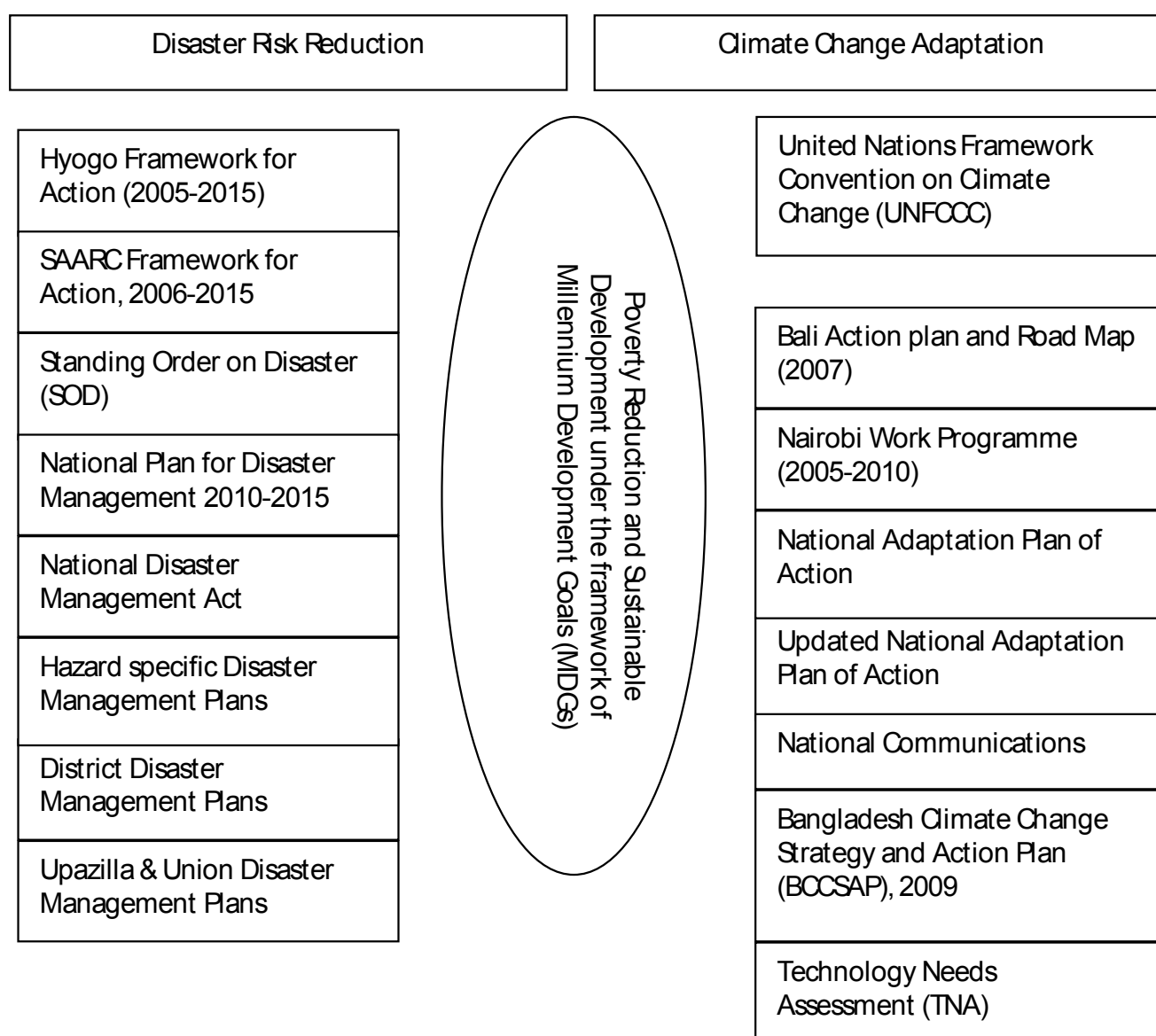


Figure 6. Global to Local Policy Framework on DRR and CCA (Khan, 2013)

#### 4.5. Institutional Integration for DRR and CCA: Exploring Next Steps

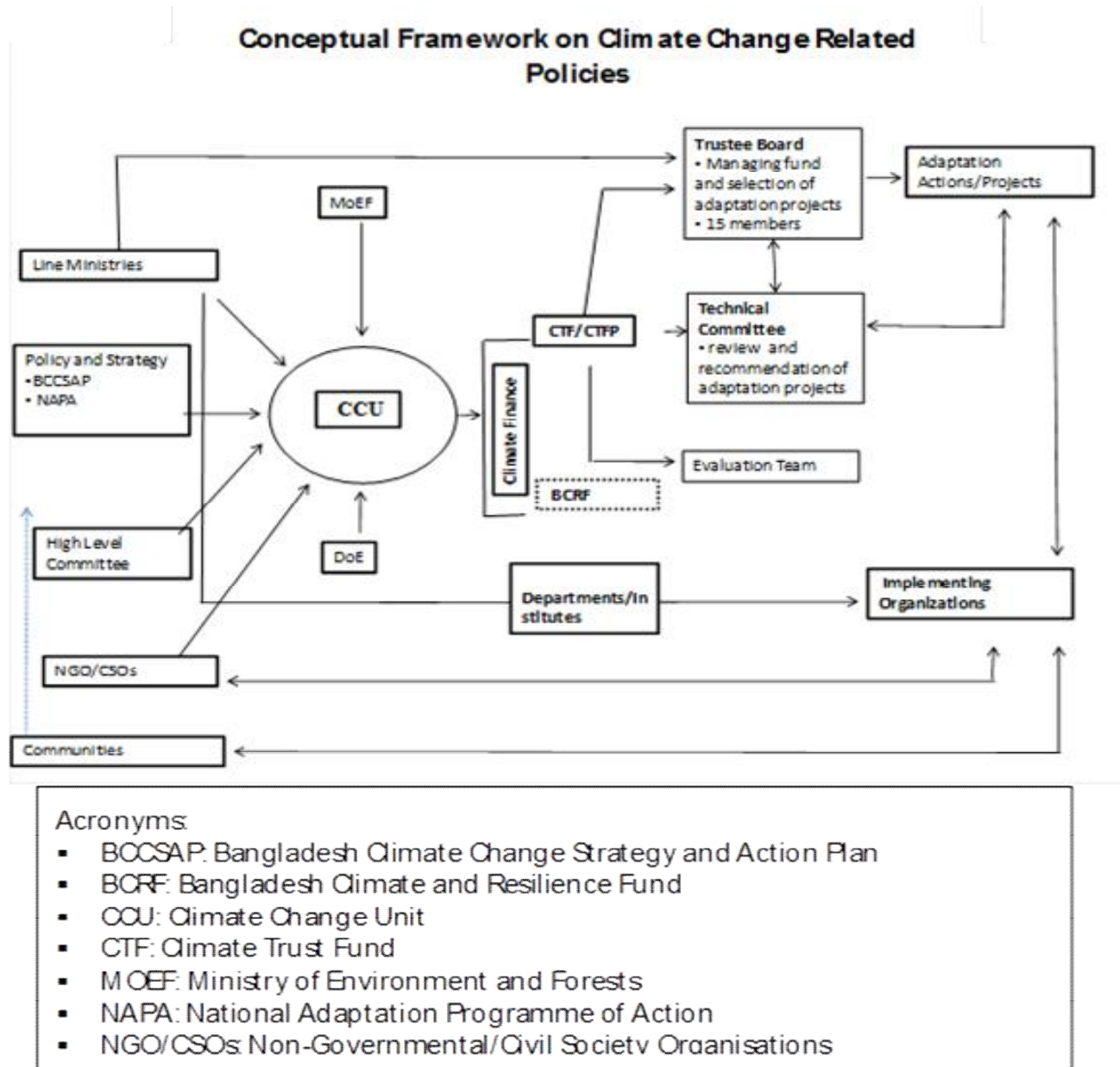
As elucidated above, the need to address both the immediate impacts of extreme events and the long-term impacts of slow onset processes has emphasised the importance of linking both DRR and CCA in a new framework to address loss and damage.

*Many countries recognise importance of linking DRR and CCA*

Many countries recognise importance of linking DRR and CCA and have taken steps to remove barriers to cooperation and coordination for effective integration of DRR and CCA within the context of both extreme and slow onset processes (UNISDR, 2012). These barriers include bureaucratic “turf wars” between ministries who are protective of their domains and do not want to cede control to other ministries (Key Informant Interview, 2013).

For example, the fact that the MoEF serves as the focal point for all UNFCCC engagement inhibits the MoDMR’s ability to learn from an important network of researchers and practitioners who are actively working to better understand and respond





**Figure 7. Conceptual Framework on Climate Change Related Policy and Institutions in Bangladesh (Huq and Rabbani, 2011)**

to climate change-related extreme events (Ibid).

*Thus it is important that there be an open dialogue between those working in the areas of DRR and CCA*

This is problematic for the CDMP, as it is responsible for developing comprehensive DRR plans that are affected by these evolving issues. Thus it is important that there be an open dialogue between those working in the areas of DRR and CCA. DRR practitioners can learn from those involved in CCA the reverse is also true; the historical experience in implementing DRR strategies could contribute greatly to adaptation, in terms of policy and institutional approaches as well as technical methods and tools (UNISDR, 2009a).

*...the absence of effective coordination and integration between DRR and CCA at the national and local levels will make it more difficult to address loss and damage associated with climate change impacts, reduce vulnerability and promote climate resilient development*

There is a desire amongst some – as expressed in high level meetings - to cease the “business as usual” approach of working in “silos” in favour of harmonization and coordination across sectors (Key Informant Interview, 2013). Presently, DRR and CCA are addressing natural, human-induced hazards and climate change impacts within their respective institutional arrangements without realising that both have overlapping interests and approaches to enhance resilience within the context of extreme and slow onset processes. In the long run, the persisting absence of effective coordination and integration between DRR and CCA at the national and local levels will make it more difficult to address loss and damage associated with climate change impacts, reduce vulnerability and promote climate resilient development.

## **5. Addressing Loss and Damage: Recommendations for Practical and Institutional Reform**

### **5.1. Recommendations**

As a first step, a comprehensive scan of all sectors should be carried out to identify areas that are particularly vulnerable to climate change-related loss and damage in order to get a better picture of the scope and scale of issues that need to be addressed. From there, a follow-up analysis should be undertaken at the sub-national level to determine which departments and/or other government entities are responsible for addressing CCA and DRR issues, and what barriers currently inhibit

communication or cooperation between these groups (Birkmann and Teichman, 2010). For example, one major obstacle to effectively integrating DRR and CCA activities is the fact that DRR is mostly undertaken at the local level while CCA strategies are primarily implemented at the national level. This divide is apparent not only between levels of government, but also in the normative framework of each approach as discussed above. To help bridge this normative gap, the GoB should look to existing international tools and standards to facilitate the integration of CCA perspectives into DRR practices (Ireland, 2010).

*With respect to DRR, efforts should adopt long-term focus to ensure resilience*

Addressing the gap between long- and short-term outlooks will also require substantive reforms to current funding arrangements. With respect to DRR, efforts should adopt long-term focus to ensure resilience. Instead, long-term DRR funding mechanisms should be developed that enable greater cooperation and coordination between humanitarian and development actors (Linnerooth-Bayer et al., 2005).

Finally, to address persisting uncertainties with respect to current and future vulnerability and ensure that evolving socio-economic and ecological trends are accounted for in DRR and CCA planning, the GoB should seek to improve evaluation and monitoring systems. One approach would be to mandate regular vulnerability and risk assessments so that that changing vulnerabilities across time and space are captured, enabling the replacement of short-term fixes with long-term adaptive strategies (Mitchell et al., 2010). Additionally, through downscaled data and more dynamic vulnerability assessments, monitoring and evaluation efforts should place a greater emphasis on determining the extent to which DRR is effectively promoting adaptive capacity (Nishat et al., 2013).

The above recommendations demonstrate scope for embedding national focal points for both DRR and CCA in institutions dedicated to development planning. Beyond this, there is also potential for connecting this work with the international agenda on climate change. While DRR has a set of internationally agreed upon goals, it is implemented

at the national – and especially sub-national – levels (Schipper and Pelling, 2006). In contrast, climate change policy is based on a legally binding convention within a global framework of cooperation (Ibid). Within this framework of international cooperation on climate change issues, the institutions and agendas that guide DRR at the national level could be used to support work on CCA (Ibid). In the context of Bangladesh, there are a number of actions that could be taken to facilitate greater linkages between these two frameworks at the national level as outlined below.

## **5.2. Institutional and Approaches to Address Loss and Damage in Bangladesh**

The multi-faceted discussions on loss and damage that have emerged at UNFCCC climate change negotiations, expert meetings, and regional workshops as well as an increasing number of case studies on the ground, point to a need for new institutional arrangements to address loss and damage at the national level (Key Informant Interview, 2013). In the Bangladesh context, however, individual ministries and departments are currently working to implement sectoral DRR and CCA programmes, an approach that can discourage cross-sectoral cooperation and coordination (Ibid). To facilitate a more integrated approach, this paper recommends that a separate policy unit be created at the Ministry of Planning to mainstream DRR and CCA into – and address loss and damage within – national policy processes.

*To provide knowledge and expertise during planning and implementation, this body would be supported by technical bodies in the MoDMR and the MoEF*

The MoP has the mandate to integrate planning initiatives between sectors that are essential to the sustainable development of the country. Accordingly, the proposed policy body would instigate cross-sectoral integration at the planning level to address loss and damage as an emerging issue. To provide knowledge and expertise during the planning and implementation phases this body would in turn be supported by technical bodies in

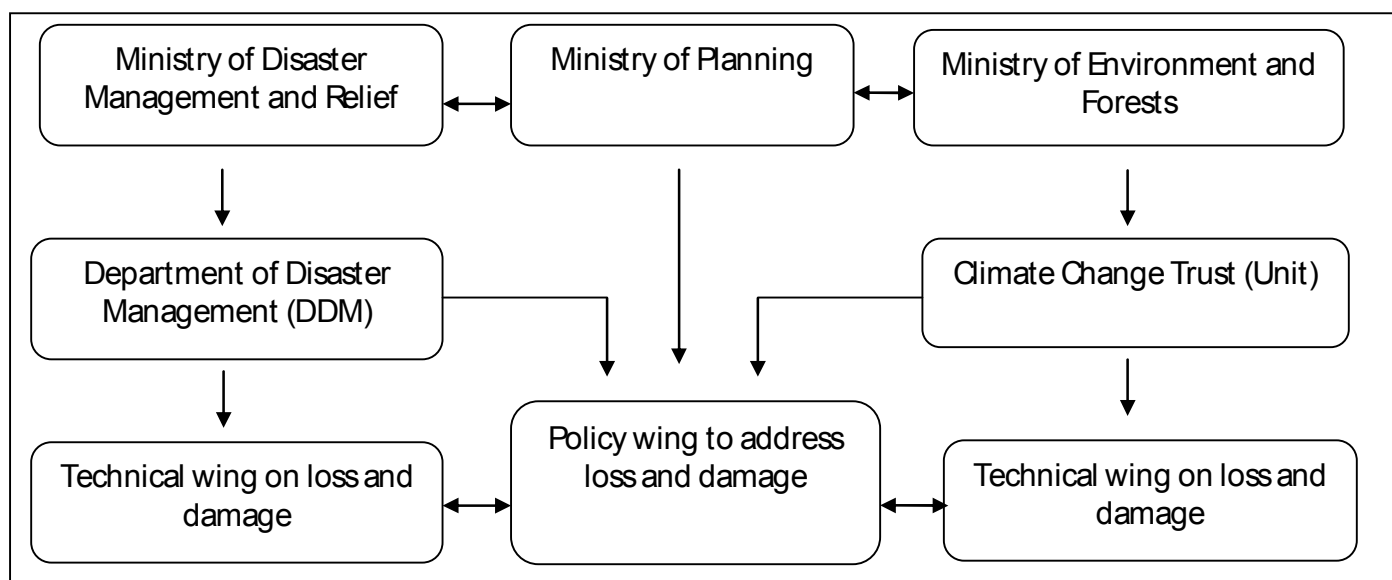
both the MoDMR and the MoEF. This new institutional arrangement to integrate CCA and DRR approaches to address loss and damage in Bangladesh (Figure 8) could be operationalised without significant structural changes in the present system.

The policy unit, which will have direct communication linkages with the relevant technical departments and the bodies under the MoDMR and MoEF, will be responsible for strategy development and coordination with other ministries and departments to facilitate the creation of programmes and policies that address loss and damage across a range of sectors. Loss and damage focal points at different ministries could be coordinated by the MoDMR and MoEF, respectively, with technical support from the proposed departmental bodies.

*...a new mechanism will require a broader transition to a comprehensive coordinated approach to developing and implementing policy*

In practical terms, effective implementation of the proposed institutional framework to integrate DRR and CCA for addressing loss and damage will require financial, technical and capacity building support. The BCCRF could play a pivotal role by dedicating a certain percentage of total funding capital (around 10 percent) to operationalise the proposed institutional framework. This new mechanism will also require a broader transition in policy development and implementation from a sectoral approach to a comprehensive coordinated approach to developing and implementing policy. To this end, there are a number of additional steps that could be taken to complement the above recommendations, including:

1. Allocate dedicated funding from national funding entities – the BCCTF and the BCCRF – for operationalising the proposed institutional framework;



**Figure 8. Proposed Institutional Set-up for Addressing Loss and Damage Associated with the Impacts of Climate Change in Bangladesh (Khan, 2013)**

2. Create a network of DRR and CCA stakeholders at the national and local levels, including vulnerable communities, to share knowledge and experience to address loss and damage;
3. Develop a common agenda for planning and implementation, in cooperation with relevant stakeholders in both the DRR and CCA communities; and
4. Develop arrangements to share power in the planning and development of CCA and DRR activities among stakeholders at different levels of government.

Ultimately, for an institutional and policy framework that integrates DRR and CCA to be successful, a broader paradigm shift is needed in terms of how those responsible for developing and implementing these activities think. Additionally, while the MoDRM and the MoEF will continue to have influence over the direction of DRR and CCA policies, both will need to cede a certain amount of decision-making authority to the MoP – a change that may be difficult for both parties

## 6. Conclusion

Since the issue of loss and damage was first acknowledged in the Bali Action Plan of 2007 (UNFCCC, 2008), interest in this emerging subject has successfully pushed it up the international agenda at recent climate change negotiations. The establishment of a UNFCCC work programme to explore approaches for assessing and addressing

this issue in vulnerable, developing countries is a testament to the increasing international salience of this subject.

*...international discussions on this subject must eventually translate into concrete and practical approaches on the ground*

However, as loss and damage is incurred at the national and local levels, international discussions on this subject must eventually translate into concrete and practical approaches on the ground, where they are most needed. While CCA policies, plans, and programmes are evolving at an encouraging rate, it is now clear that some climate change impacts are – and will continue to be – beyond adaptation. To address the inevitable loss and damage that will result from climate change-related extreme events and slow-onset processes in a comprehensive and coordinated way, national governments should seek to explore how the practice and theory of CCA can learn from DRR, and vice versa.

At present, there are a number of areas where DRR and CCA naturally converge. In their respective efforts to reduce exposure to hazards and decrease vulnerability to long-term climatic changes, DRR and CCA both benefit from livelihood diversification and



improved resource management practices that increase the food security of at-risk populations. Additionally, both have an interest in minimising loss and damages incurred through extreme weather events that are – through short-term climate variability or more profound, slow onset processes – influenced by climate change. The incorporation of DRR expertise in implementation could help to increase the pace at which CCA efforts move from planning to action. Meanwhile, DRR can also learn from the long-term perspectives of CCA in order to ensure that DRR activities align with shifting climatic realities, and not just historical experience.

*Overcoming these institutional silos, and ensuring that the knowledge and expertise of CCA and DRR have the opportunity to explore complimentary approaches, is a gap that must be addressed*

In the national context of Bangladesh, many of the advantages that greater collaboration between these two fields might yield are hindered by rigid institutional barriers. While each has a relatively well established institutional and policy framework, the bureaucratic demarcation of responsibility for CCA and DRR – housed within the MoEF and MoDMR, respectively – discourages cross-sectoral cooperation. This prevents collaboration on policies, programmes, and other activities where substantial overlap exists, wasting human and material resources and increasing the complexity of arrangements to address issues of mutual concern. Overcoming these institutional silos, and ensuring that the knowledge and expertise of CCA and DRR have the opportunity to explore complimentary approaches, is a gap that must be addressed if either field is to be more effective in addressing climate change-related loss and damage in Bangladesh.

To facilitate greater collaboration between relevant CCA and DRR entities within the MoEF and MoDMR, this paper proposes the creation of a new Loss and Damage Policy Unit housed within the MoP to coordinate and streamline policy and planning

between these two sectors. With the assistance of select technical bodies within both the MoEF and MoDMR, this body, with the financial backing of Bangladesh's two major climate funds (BCCTF and the BCCRF), would coordinate the development and implementation of new policies and programmes to address loss and damage. This process would be carried out not only with the input and support of the MoEF and MoDMR, but would also seek to secure feedback from international, regional and local levels, integrating the expertise of development and humanitarian practitioners, and the knowledge of local and indigenous populations. While bridging the normative gaps that exist in the theory and practice of CCA and DRR will take a sustained and mutual effort, the proposed institutional restructuring is an important first step in addressing existing overlaps in how both areas are carried out in Bangladesh. To effectively address climate change-related loss and damage at the national level, efficiency and expedience demand the adoption of a more collaborative and cooperative approach.

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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](http://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.

For further information:

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