MEASURES TO ADDRESS LOSS AND DAMAGE INCLUDING INSURANCE FOR COASTAL FISHER FOLK OF BANGLADESH

Policy Brief 02

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1 INTRODUCTION

Bangladesh is a low-lying deltaic country with a population of over 160 million. The economy is highly dependent on climate-sensitive sectors. The fisheries sector, which supports livelihoods of 660–820 million people (FAO, 2012), is considered amongst the worst affected by climate change (IPCC, 2007; Paerry et al., 2009). Small-scale fishing communities in developing countries, which constitute 90% fishery-dependent people (FAO, 2012), will face complex and localized impacts (IPCC, 2007).

1.1 Fishing Community of Bangladesh

Bangladeshis have a long tradition of fishing and fish culture which contributes significantly to employment, income generation, export earnings and human nutrition. This sector supports livelihoods of about 7 million fishers directly and 12 million people indirectly and contributes 4.43% to GDP and 2.73% to export earnings (DoF, 2012). Most (93%) of the marine fishing is small-scale in nature and supports the livelihoods of over half a million fishers and their household members (DoF, 2012) living in 870 fishing communities (Aghazadeh, 1994). Although updated published data is hardly available, the number of coastal fishing communities is frequently claimed as more than 2000 in the media. In addition, marine fisheries support the livelihoods of other households involved in ancillary activities such as fish processing, gear making and so on.

Several studies have found poor physical infrastructure in coastal fishing villages of Bangladesh. Most people live in poor socioeconomic conditions and most of the households cannot eat regularly, have little education, and have only moderate public health provision. Some get financial assistance from the government and international donors (Hasan et al., 2004).

1.2 Climate Change, Fisheries and Fishing Community

Available information on the possible impacts of climate change on fisher folk shows that fisheries sector regarded amongst the most vulnerable to climate change in the world (Allison et al.,2009).The climate of Bangladesh has changed over the past decades and predictions are that it will continue to change even more in the future, resulting in considerable negative impacts especially in the coastal areas (BMD, 2011). From 1980 to 2000, a total of 250,000 deaths were associated with tropical cyclones around the world, of which 60% occurred in coastal Bangladesh (IPCC, 2007). One of the most devastating cyclones and associated storm-surge-induced floods killed 300,000 people in coastal Bangladesh in 1970 (IPCC, 2007) many of whom were from fishing communities. The projected climate change may directly impact on the fish stocks and the Bay of Bengal ecosystems, and on the livelihoods of the fishery-dependent people in Bangladesh (see figure 1, climate change impact pathway in fisheries sector and the fishing community).

> When we were young, we used to go out for an hour and come back with enough fish for a day, but now we go for eight hours. Fishes are rarely found now in the river even in the month of Ashar, the best time of fishing" - Khalilur Rahman (46)

> This year (2016) is the worst year of my fishing life. For the fifth time, I have to stop fishing due to frequent cyclone warning. Each time, I go to the river (connected with sea), there is a cyclone warning and I have to return with empty hand. - Kalu Gazi (34)

1.3 Climate Change and Fish Production

Climate change may also result in an increased level of fluctuation in fish production in Bangladesh (Ali, 1999). Cyclones and associated floods may exert tremendous impacts on fishing assets, infrastructure and ultimately on the livelihoods of fishing communities. Ahmed and Neelormi (2007) observed a reduction of fishing days during the monsoon of 2007 due to cyclonic sea condition. More frequent and intensified cyclones can further reduce fishing days. In coastal Bangladesh cyclones of very high intensity may occur in April and May, and between September and November (BMD, 2011). Most of these months fall within the fishing seasons and consequently fishing activities may be impacted by intense cyclones. Traditional fish drying activity may also be impacted by increased temperature and variation in rainfall as well as by extreme climate and weather events. Sea level rise and land erosion may make the current living areas of fishing communities unsuitable and may result in their displacement or may leave them in a more vulnerable situation. As a whole they are likely to be exposed more to climate change impacts (Agrawala et al., 2003).

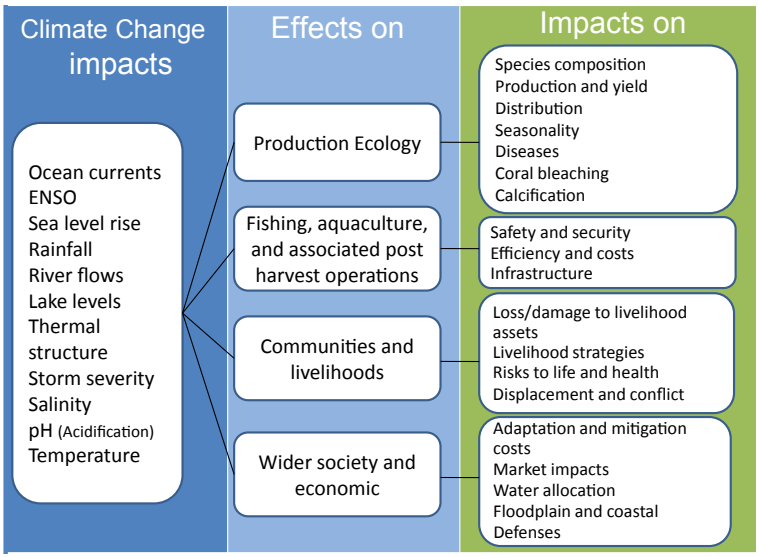
1.4 Coastal Fishing in Bangladesh

Coastal small-scale fishery-dependent people can be categorized into different groups. Most of the fishers catch fish with boats and gear, although a small number of them do not have a boat and operate only with small (push/pull) nets near the shore. Four types of boats (small manual, small mechanized, medium mechanized and large mechanized) are commonly used with different types of nets depending on the target species and fishing season. In Bangladesh, there are 21,097 total motorized fishing vessels of which 99.20% are less than 12m in length (FAO, 2012). Normally rich people, who can afford at least 400,000TK, own these boats (BOBP, 1985). In a boat, a group of 5 to 25 people work during a fishing operation that lasts between 12 hours and 20 days (Hasan et al., 2004).

In a typical large boat, there is a captain (also called crew leader) and regular crew members (BOBP, 1985).

The boat captain's income is two to three times higher than a normal crew member (Hasan et al., 2004). The commissioning agents dominate the wholesale markets and have a chain of suppliers who regularly bring catches.

Figure 1: Climate change impact pathways in fisheries sector and the fishing community



Source: Badjeck et al. (2010)

These agents charge 3-6% commission and take 2-4 fish for every 80 fish sold (Rahman, 1994). The agents in turn provide advance money (dadon) to boat owners to make boats and nets. The boat owners are obligated to sell fish to the agents. After landing, fishermen tend to sell their fish as early as possible to these agents to avoid spoilage because of the inadequate cold storage facilities and unavailability of good quality ice.

2 LOSS AND DAMAGE ISSUE UNDER UNFCCC

2.1 A Brief on Loss and Damage Issue under UNFCCC

Proposals to address the effects of climate events through the climate change regime have existed since the negotiation on the adoption of the UNFCCC itself (1991), when the Alliance of Small Island States (AOSIS) proposed the establishment of an insurance pool for vulnerable countries that would be funded by mandatory contributions from developed countries. The proposal was not successful. It was not until 2007, when the Bali Action Plan called for action and the term loss and damage was coined and the issue firmly entered the UNFCCC negotiation agenda. Under the Bali Action Plan, loss and damage was housed within the adaptation pillar, and was understood to comprise facilitative approaches, including disaster risk reduction strategies and risk transfer and management tools such as insurance.

Discussions on the exact role the UNFCCC should play in addressing loss and damage continued in the years after Bali, culminating in the adoption of a work programme on loss and damage at COP-16 in Cancun in 2010. The work programme raised the profile of loss and damage and ensured it more attention in the negotiations. Discussions following Cancun sought to identify concrete areas of action, but initial areas identification remained broadly framed. It was not until two years later at COP-18 in Doha that Parties could agree on a more defined scope for loss and damage.

The following year in Warsaw, the COP established institutional arrangements in the form of the "Warsaw International Mechanism for Loss and Damage Associated with Climate Change Impacts". The mechanism had an initial lifetime up to 2016 and was to be managed by an interim Executive Committee. The Committee was tasked to develop and carry out an initial

two-year work plan. The work plan developed by the Executive Committee set out nine priority 'action areas' for work on loss and damage including risk management mechanisms such as disaster risk insurance (ref: http://unfccc.int/adaptation/workstreams/loss_and_damage/items/7545.php)

2.2 Loss and Damage in Paris Agreement

Although the specific claims of developing countries did not survive the final round of negotiations, the Paris Agreement in 2015 gives effect on most important demand of developing country, namely integrating loss and damage as an independent third pillar of the climate regime. It does so through dedicating a full article (Article 8) to loss and damage and integrating the Warsaw International Mechanism into the long-term cooperative structure of the climate regime and linking it to the institutional architecture of the Paris Agreement.

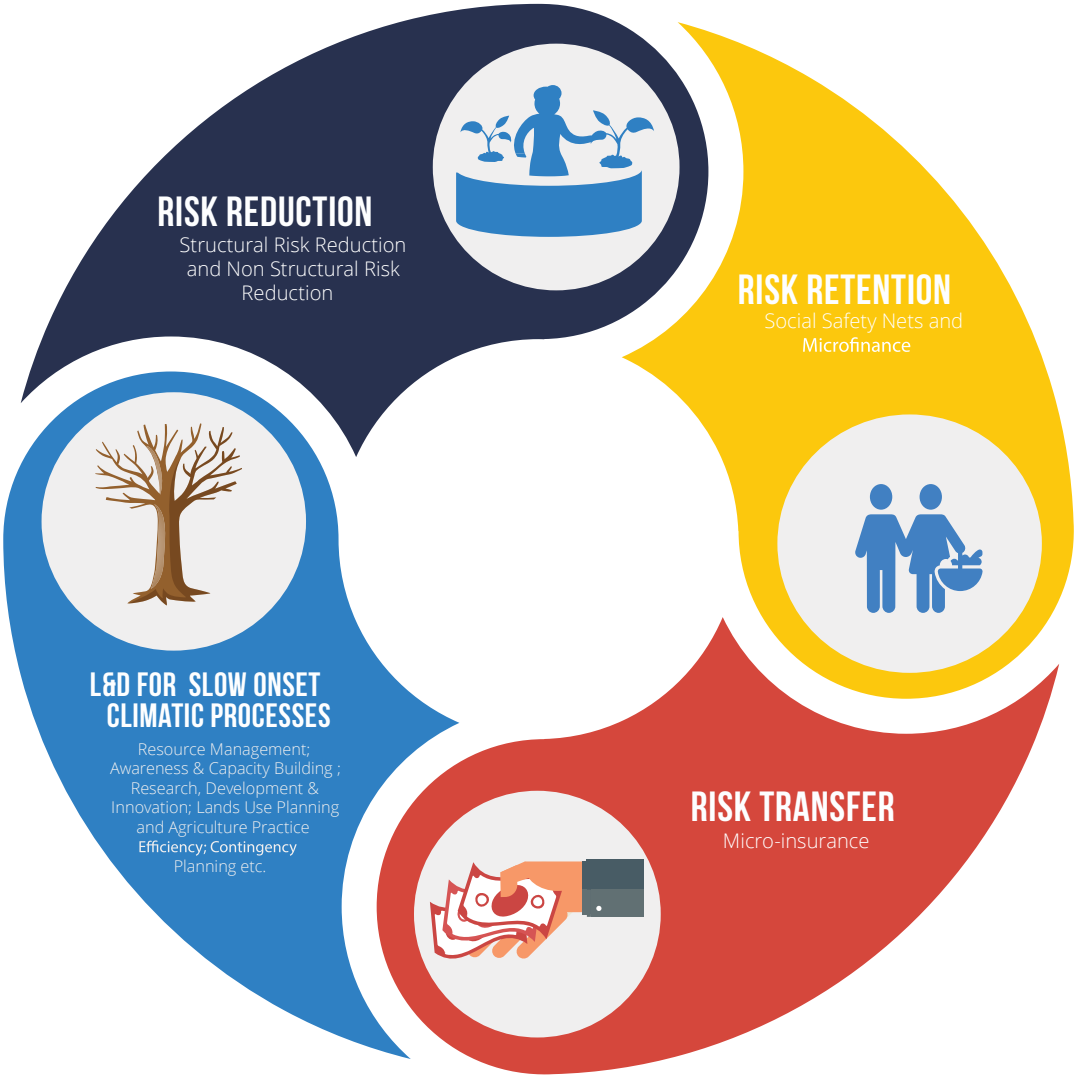
Article 8.3 of the Paris Agreement clarifies that the Parties' obligations are of cooperative and facilitative character – reiterating the approach adopted in the Bali Action Plan and the Warsaw International Mechanism, while excluding any trace of the proposals on legal responsibility and financial obligations. The accompanying COP decision confirms this, explicitly excluding the possibility of liability or compensation under loss and damage. Instead, the Agreement sets out a number of potential areas of cooperation that Parties may pursue. The list includes areas such as early warning systems, risk management strategies, insurance facilities and non-economic loss, and echoes the two-year work plan of the Warsaw International Mechanism. The accompanying COP decision places particular emphasis on two action areas for the period of 2015-2020, namely insurance and risk transfer schemes, and integrated approaches to avert, minimize and address climate-related displacement, and requests the Executive Committee of the Warsaw Mechanism to take steps to operationalize these actions. Notably absent is the Climate Change Displacement Coordination Facility advocated by vulnerable states. The language of the Paris Agreement is also carefully crafted to avoid that the effective creation of a separate pillar beyond mitigation and adaptation leads to additional financial commitments on the part of developed countries(ref: http://unfccc.int/files/essential_background/convention/application/pdf/english_paris_agreement.pdf).

3 ADDRESSING LOSS AND DAMAGE IN BANGLADESH

In LDCs like Bangladesh adaptation and risk reduction efforts are integral to avoid loss and damage. However, evidence has shown (Warner and van der Geest, 2013) that loss and damage can overwhelm the ability of individuals and households to cope and adapt. Approaches to address residual losses and damages are integral and must be implemented as part of comprehensive risk management frameworks. Though some losses and damages can be avoided through adaptation and Disaster Risk Reduction efforts, there will be residual loss and damage have making it important to adopt and implement a range of other risk management tools which will need to be implemented simultaneously as part of a comprehensive strategy to address loss and damage. Recently, in Bangladesh, Department of Disaster Management is in the process of consultation to formulate "National Mechanism of Loss and Damage" (personal communication with Md Reaz Ahmed, 2016). Bangladesh has a number of policies in place that – while not specifically aimed at addressing loss and damage – play a role in helping communities to maintain resilience in the face of the unavoidable impacts of climate change.

3.1 Risk Transfer

Risk transfer approaches that can be utilized to address loss and damage include insurance, catastrophe bonds, conditional risk transfers and insurance-credit programmes – among other tools (UNFCCC, 2012). These measures can provide protection from the loss of assets and livelihoods, which in turn can protect the economy, promoting economic growth in the wake of disaster events (Warner et al., 2013).



To address Loss and Damage there are four main risk management techniques i.e. risk reduction, risk retention, risk transfer and approaches to specifically target loss and damage from slow onset problems (Warner, 2012).

3.2 Risk Retention

Risk retention measures allow countries to 'self-insure' against climate change impacts and include tools that build resilience like social protection measures or those that allow populations to cope in the face of climate change impacts and offset the financial burdens of doing so such as contingency funds (UNFCCC, 2012). Two of the most common risk retention policies in Bangladesh are social safety nets and microfinance programmes.

3.2.1 Microinsurance

In many LDCs insurance penetration rates – gross premiums as percentage of GDP – are extremely low due to the fact that many people live at a subsistence level (Khan et al., 2013). Bangladesh, with a penetration rate of 0.9 percent, is no different. Between 90 and 94 percent of the population lack access to insurance products, with the 6 to 10 percent of those who are covered primarily from households in the middle to upper income range (ADB, 2009 ; Roth et al., 2007; Khan et al., 2013).

In the 1970s a crop insurance programme was launched by the Sadharan Bima Corporation (SBC), a state-owned entity, but was ultimately deemed financially unsustainable and cancelled in 1995 (Khan et al., 2013). However, in recently years there has been a resurgence in interest in index-based crop insurance with several programmes either recently launched or planned for the near future (Khan et al., 2013; Ahmed, 2013).

The Palli Karma-Sahayak Foundation (PKSF) launched the Developing Inclusive Insurance Project in January of 2010 to provide the poor and vulnerable with low-cost insurance services to protect them from crop and livelihood losses, death, illness and other impacts that may reduce their income (Khan et al., 2013). In late 2013 PKSF began piloting a project to provide index-based insurance (IBI) against drought in the Bogra district in northern Bangladesh in partnership with the International Food Policy Research Institute (Ahmed, 2013). Four other IBI pilots or programmes have been recently implemented in Bangladesh including a project funded by the Asian Development Bank and implemented by SBC to provide coverage against either excess or inadequate rainfall in three districts (Ibid). The project

will upgrade weather stations to provide better data, provide training, development and capacity building for relevant issues and address insurance illiteracy (Ibid).

In order to address loss and damage in better way microsurance products must target the poor. The research in Bangladesh suggested that the growth of the microinsurance market could be facilitated by pairing large insurance providers with smaller MFIs already working with low-income clients (Khan et al., 2013). In addition public-private partnerships could integrate microinsurance products with 'broader social objectives' (Ibid). The GoB could facilitate this process by implementing policies that required insurance companies to enroll a certain number of low-income households (Ibid).

In 2006 a study found that in the LDCs only 3% of the poor had access to insurance products (Reinhard, 2008). Many people in the target population are illiterate and do not understand how insurance works (Ibid). The phenomenon of 'insurance illiteracy' can be addressed by ensuring that policies are simple and easily understood (Ibid).

3.2.2 Social Safety Nets

Social safety nets are especially important in disaster prone areas (World Bank, 2011). According to a recent report by UNDP, in 2014-2015, Bangladesh has spent around 2.3% of GDP and 12.3% of annual budget (PCCC-UNDP, 2015) (GDP was 195 billion in 2015) (http://www.worldbank.org/en/country/bangladesh).

Bangladesh financed 145 social safety net programmes (Finance Division, 2015). Recently, fishing card introduced for the fishing community to get the financial, logistic and security support from the government agencies.

The Government of Bangladesh has also implemented a post-flood programme to provide agricultural subsidies to affected farmers. In 2007 the GoB provided 12.7 million USD in relief in the aftermath of two flooding events, 4.6 million USD for recovery from Cyclone SIDR and 2.9 million USD for 'agricultural rehabilitation' (Finance Division, 2008).

ID CARDS PROVE THAT FISHERMEN ARE NOT PIRATES

Abdul Aziz (45) is a Fisherman who has been fishing in the Bay of Bengal for almost 20 years. He smiled brightly when we asked them about catching of Hilsa this year, he said "this year we netted plenty of big fishes and we are happy with our income. However, the peak season of catching Hilsa is about to end. Following the trend of the previous years, government has imposed a ban on catching, selling, transporting and hoarding of Hilsa for 22 days from October to November."

''How much did you earn during the ban period?'' - We asked. "Last year we didn't have any income during the ban period, we got 40KG of rice showing the identity card (ID). As there was no work during the months of the fishing ban, It was very difficult to support our families with rice only" - he replied.

A little ahead, a group of fisherman swings their net, they added that "It's very common that the coast guard mistake fishermen as pirates. Even few days ago, we were mistakenly arrested by some coast guards but they let us go when we showed them our ID card."

3.3 Microfinance

As the birthplace of microfinance, Bangladesh is home to a variety of programmes aimed at providing loans and other financial services to vulnerable people (Agrawala and Carraro, 2010). Traditionally Microfinance Institutions (MFIs) have provided loans to groups of individuals for helping the poor to purchase assets, diversify their income and invest in activities like strengthening their homes. As a result they contribute to efforts to reduce loss and damage, build resilience to climate change and help communities to cope when losses and damages are not avoided (Ibid). Skill development training, community support and health care are also provided to target households.

Microfinance programmes could be more successful at addressing loss and damage from climate change if they had more flexible repayment terms that allowed clients to temporary suspend during drought, floods or in the onset of other events and if they incorporated programmes to promote education and livelihood diversification to a greater extent (Agrawala and Carraro, 2010).

MFIs should also diversify the products they offer. For example, by offering secure deposit services, MFIs could encourage savings, which offer a buffer against loss and damage (Rippey, 2009).

MFIs could also diversify their portfolios to include programmes that facilitate climate resilient and low carbon agriculture, promote clean energy use – among other initiatives (Ibid) to integrate mitigation, adaptation and approaches to address loss and damage.

Like any other risk management tool, microfinance programmes are not a standalone solution to address loss and damage and they can in fact exacerbate vulnerability if the debt burden is increased without increasing income or enhancing livelihood opportunities (Hammil et al., 2008).

3.4 Approaches to Address Loss and Damage for Slow Onset Processes

Losses and damages from the incremental changes which occur with slow onset processes like sea level rise will require some targeted, long-term approaches. For example, sea level rise can be addressed through infrastructure like coastal embankments and climate proofing coastal infrastructure, restoring coastal wetlands and beaches and creating vegetative buffers and zoning measures that

limit development in coastal areas (UNFCCC, 2012). These approaches have utility in Bangladesh; however, sea level rise will also have a significant impact on livelihoods, and will ultimately force millions of people to migrate if current predictions in the IPCC's AR5 are realized.

3.5 Migration

Slow onset climatic processes, especially salnization, are already inducing temporary migration in Bangladesh (Nishat et al., 2013). As impacts of climate change intensify, more people will be forced to relocate permanently (Ibid). The research in Bangladesh suggested that programmes and policies should be in place to facilitate migration in a way that reduces both economic and non-economic loss and damage to the extent possible. In addition, support will be needed -including social safety nets - to help these individuals and households settle in their new homes, which are more likely than not to be located in urban slums (Ibid). The laws governing resettlement and relocation will likely need to be reviewed as the risk of loss and damage intensifies (Al Faruque and Khan, 2013). However, the most vulnerable and in need of help will likely be those left behind, without the financial and social capital to move (Foresight, 2011).

3.6 Livelihood Diversification

Livelihood options will likely be restricted as the severity of slow onset climatic processes intensifies, especially for those who rely on climate-dependent livelihoods like agriculture, fisheries and forestry (Nishat et al., 2013). Long-term livelihood diversification programmes that incorporate field research and pilot programmes that promote climate resilient agriculture and provide training in non-climate resilient livelihoods are integral, especially for coastal communities (Ibid).

4 WAY FORWARD

4.1 Establishing Comprehensive Risk Management Frameworks

Bangladesh has many policies in place to address climate change at the national level and the National Plan for Disaster Management reaches the local level by requiring Upazilas (sub district) and Unions to develop disaster plans. However, local governments could be more empowered to inform the policies they are required to implement. Though Bangladesh has made significant strides in mainstreaming climate change into sectoral policies and plans this effort could be intensified and improved, especially in the case of slow onset processes. In particular there is a need to mainstream slow onset processes into the policies of the Ministry of Disaster Management and Relief and Local Government Division. It is also important that local and indigenous knowledge be incorporated into policies and plans. Bangladesh has recognized the importance of incorporating traditional and indigenous knowledge into its risk management efforts, but this recognition has not yet translated into practice. For example, the BCCSAP does not properly acknowledge the importance of community-based adaptation. Better harmonizing the Climate Change Adaptation (CCA) and Disaster Risk Reduction (DRR) agendas could facilitate the development of more comprehensive risk management frameworks. Establishing a unit under prime minister's office dedicated to harmonize efforts on CCA and DRR including loss and damage could be an important first step to addressing both overlaps and gaps in climate change policy in Bangladesh.

4.2 Effective Safety Net and Micro Finance Scheme

Risk retention programmes like social safety nets can play an important role in addressing loss and damage from both extreme weather events and slow onset climatic processes. Although Bangladesh maintains a strong safety net programme under its revenue budget for poor and ultra poor, aged population, disabled, freedom fighters, students and for the fishing community. However, in order to be effective they must reach those who

need it most. Microfinance can also be an important tool to address loss and damage, but to adequately tackle climate change concerns repayment schedules should be more flexible and products should be accompanied by capacity building and training programmes. The micro savings scheme could be linked up with the micro finance scheme so that climate vulnerable people could get the support in times of their need. PKSF already practiced this kind of approach for sustainability of micro finance scheme as well to support the poor people in times of their emergency need (Annual Report of PKSF, 2015). Those risk retention programmes that are successful should be scaled up. Bangladesh could also raise the issue in the international forum and seek support from climate finance window such as Least Developed Countries Fund (LDCF), Adaptation Fund (AF) and the Green Climate Fund (GCF) under UNFCCC.

4.3 Piloting Micro Insurance Scheme

Risk transfer approaches like microinsurance also have a role to play in addressing loss and damage but programmes and policies need to be tailored those who need them most. Piloting the feasibility of Insurance Scheme could be initiated at first instance. Globally, particularly at LDCs, there is very limited experience of running insurance scheme in the crop sector as well as in the fishing sector particularly in the coastal fishing sector. Private sector might not be interested to come forward for piloting or to make feasibility study of insurance schemes for the climate vulnerable community. Government insurance sector such as Jibon Bima Corporation may come forward and to take pilot scheme for the coastal fishing community and make feasibility study for approaching the suitable insurance schemes. Right now there is no dedicated funding window for loss and damage and to support the insurance mechanism for the climate vulnerable people under UNFCCC. However, the issue should be raised in the global forum to effectively address the issue of risk transfer to the climate vulnerable people. Like other LDCs Bangladesh yet to develop index based crop insurance and any insurance mechanism for the fisher community in the coastal areas. Dedicated financing mechanism on Loss and Damage could address the most critical and important issues on payment of premium and to attract insurer and reinsurer for effective functioning of the insurance scheme for the climate vulnerable people.

4.4 Skill Diversification

Climate models have already predicted that climate is changing exponentially, sea level is rising and erratic behavior of cyclone and storm surge will continue in coming years. Sole dependency on fishing by coastal fishing community might endanger their livelihood support and ultimately create social unrest and large scale human migration. However, there is very little effort, initiative and motivation both from public and private sector to diversify the profession as well skill development efforts for the vulnerable communities particularly the fishing communities. Capacity building, capacity enhancement, education and training for skill diversification are necessary for sustainable livelihood as well as to keep the fishing communities living in and around their ancestral lands.

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Christian Commission for Development in Bangladesh (CCDB) has been working in Bangladesh since 1973 to create a just and caring society where the poor, marginalized and vulnerable people can claim and enjoy human rights and justice for a sustainable livelihood with dignity.

Acknowledging climate change as a priority development issue to be addressed in Bangladesh, CCDB has been implementing several projects to build community resilience to climate change impact since 2007. Moreover, CCDB has taken several initiatives to introduce adaptive technologies in the areas of agriculture, water, etc. Capacity building on climate change adaptation and mitigation is another one of the priority areas of CCDB's climate change programme. This initiative is playing a significant role in building skill and knowledge of different stakeholders including NGO professionals. CCDB's Climate Change Unit is also heavily involved in some research on agricultural adaptation, loss and damage, ICT in climate change, etc. In addition, CCDB is in the process of establishing a Climate Technology Park- an interactive climate learning center, first of its kind in Bangladesh to provide solutions regarding adaptation and mitigation technologies since 2016. The ultimate objective of CCDB's climate change programme is to promote pro-poor climate resilient low carbon sustainable development in Bangladesh and beyond.

This policy paper "Measures to Address Loss and Damage Including Insurance for Coastal Fisher Folk of Bangladesh" is an outcome of a research initiated by Climate Change Unit of CCDB.

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