



POLICY BRIEF

March 2015

Key messages

- Climate change has significant implications for livelihoods in the Bangladesh, especially in coastal rural areas, where people overwhelmingly depend on agriculture, fishing, and forestry.
- Climate change impacts are already being felt, primarily in the form of more erratic rainfall, water scarcity, shifts in the seasons, and more extreme weather.
- There is a particular need to address the livelihood needs of poor and marginalized farmers, who are now least able to cope with environmental and economic shocks.
- In agriculture, a major focus is on finding new crops and crop varieties that are better suited to changing conditions. There are also efforts to diversify livelihoods and to create more cash-earning opportunities.

Authors:

Md. Anwar Hossain & Habib Torikul

Livelihood Security in Changing Climate: Insights from the Coastal Region of Bangladesh

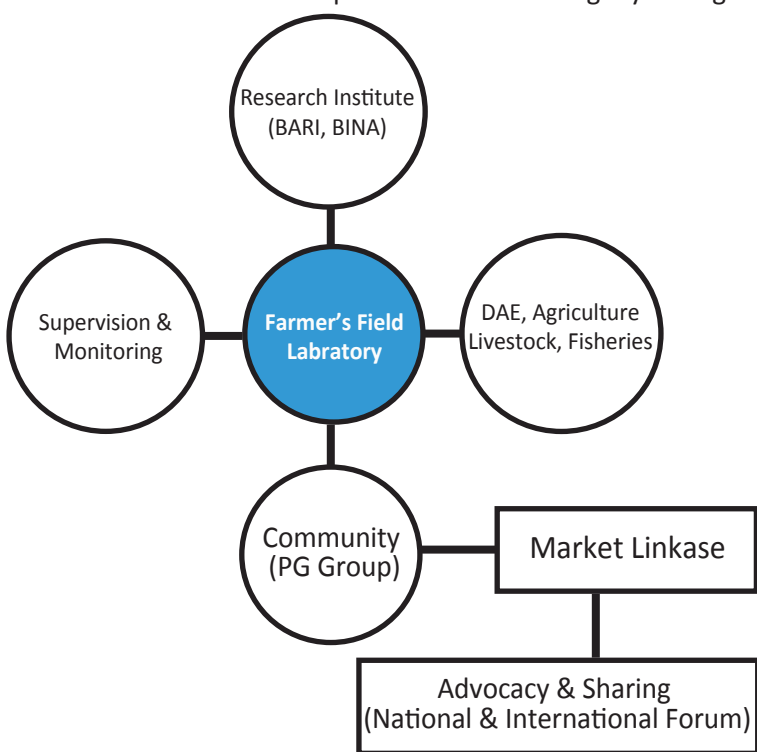
Introduction

Bangladesh is one of the most climate vulnerable countries of the world due to its geographical location and very high population density. Current evidence strongly suggests that the concentration of climate change causes an increase in the frequency and the severity of sudden onset of natural disasters like flood, cyclone drought, riverbank erosion and salinity intrusion. Bangladesh seems to be one of the worst victims of climate change ravaged by major disaster events like 1998 flood, 2000 flood, 2007 cyclone SIDR and 2009 cyclone AILA [1]. The cyclone SIDR and cyclone AILA displaced over 33 thousand people from their land and damaged crops of 112,879 hectares [2]. Even after a long time of occurrence of SIDR and AILA, most of the lowlands still remain waterlogged or under submergence, and farmers cannot use their submerged lands due to soil salinity. Alternatively in view of the high probability of climate change, the impacts of climate change on coastal areas a one-meter rise in sea level could displace nearly at least 2 million people from their homes in Bangladesh [3].

Impact of Climate Change on Livelihood: Climate change and variability have already had an impact on the lives and livelihoods of people living in coastal areas of Bangladesh. Salinity grips nearly 80 percent villages under Koira upazila in Khulna district, causing persistent crisis of safe drinking water and extensive damage to arable lands, especially those producing paddy and vegetables. The crop lands are being either fallowed or transformed into shrimp farm and in this process the poor farmers are being erased from their land and are being gripped by the rich people. Statistical Data shows that after cyclone AILA, more than two thirds of the populations in coastal districts are consuming 2,122 kcal per day. On a contrary more than half ofations are consuming 1805 kcal per day [4].

Addressing Climate Change Impact on Livelihood: National Adaptation Programme of Action (NAPA) highlights climate change impacts on agricultural livelihoods and focuses adaptation efforts on the development of saline and drought tolerant varieties of crops. NGOs and some donor/lender-supported projects are working with communities to improve livelihoods, enhance food security, and build climate resilience through participatory processes. Several studies identified that community based adaptation is a promising entry point for livelihoods-oriented adaptation measures, because it involves collective management of natural resources and opportunities to earn revenue that can be reinvested in livelihoods diversification and community development.

Farmer's Field Laboratory: Development of Adaptation strategy: Seemingly climate changes add stress on managing natural resource system, which poses multiple challenges for socio ecological systems and livelihood of the farmers. To cope up with the risks, through indigenous strategies and options farmers potentially improves their livelihood activity. Hence a straightforward logic is that farmers can develop the solution of their own problem just they need help of systematic knowledge. People centered technologies can sustain and easy to disseminate and replicate. To accelerate the process people centered technologies can sustain and easy for dissemination and replication. Islamic Relief Bangladesh initiated this idea at field in extent of various kinds of resource, assistance as require. This is indeed a People-centered management practices recognizing farmer's indigenous knowledge & skill. On one hand it involves an Implications of Learning by Doing.



Islamic Relief Bangladesh guiding Climate Adaptive Livelihood Options in climate vulnerable areas of Bangladesh with close collaboration with different research institutes, Community people. The objective of this intervention is - characterization of livelihood systems; profiling of vulnerable farmer groups; assessment of past and current climate impacts; and understanding of local perceptions of climate impacts, local coping capacities and existing adaptation strategies. It also is developing a good practice adaptation option, evaluating and field testing locally.

Possible Benefit of this Strategy: It was found from different researches that adaptation and enhancing livelihoods sometime incompatible. For example, transforming crop land into commercial shrimp farm limits income opportunity for the poor farmers as well as environmental degradation. So mal adaptation should be prevented.

Key concepts around climate change adaptation are not universally agreed on. It is therefore important to understand local contexts – especially social and cultural norms – when working with community and national stakeholders to make informed decisions about appropriate technology options. Thus, decision making processes should be participative, facilitated, and consensus-building oriented and should be based on the following key guiding principles:

- Increasing awareness and knowledge
- Strengthening institutions
- Protecting natural resources
- Providing financial assistance
- Developing context-specific strategies.

Policy Recommendation:

- There are distinct knowledge gaps in understanding the adaptation which need to be filled up. Governments and external funders should give emphasis on scientific research to fill these gaps, including local level adaptation models.
- Climate adaptive livelihood cannot depend on one income sources. It should be a combination of agro and non-agro options. Access to natural resource often works as safety net for the poor people. So environment protection activities should not so restricted that inhibits the people access to the natural resource.
- Local knowledge is also crucial in identifying appropriate adaptation actions. This includes traditional practices as well as own initiative for income diversification.
- Efforts should be made to provide external technical and financial assistance to help communities and individuals develop livelihood assets to enhance financial assets for coping shocks.
- It is important to strengthen local institutions, individually and collectively, so they can better engage people in adaptation planning and decision-making and increase local influence in government processes.
- Equity and technology justice should be a key consideration in adaptation efforts. This consideration should extend not only to poor and marginalized social groups, but also to women. Efforts to improve access to land, finance, agricultural inputs, and technologies need to be scaled up.
- Governments and external funders should encourage and financially support exchanges of ideas and lessons learned, about protecting livelihoods and other adaptation and development priorities.

References::

1. Md. Habib Torikul and Sonia Farjana, "Climate Change, Natural Disaster and Vulnerability to Land Displacement in Coastal Region of Bangladesh," International Journal of Innovation and Applied Studies, vol. 5, no. 2, pp. 150–159, February 2014.
2. GoB (Government of Bangladesh), Super Cyclone SIRD 2007: Emergency Response and Action Plans- Interim Report, 2008. [Online] Available: <http://www.cdmp.org.bd/Revised-Sidr-Report-Final>
3. R. J. Nicholls and N. Mimura, "Regional issues raised by sea-level rise and their policy implications," Climate Research, vol. 11, pp. 5-18, 1998.
4. United Nation, June 2010, Cyclone Alia, joint UN Multi sector Assessment & Response framework.