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CLIMATE BRIEF - 3

Bangladesh and Climate Change: Need for a Comprehensive Adaptive Strategy

It was 11,000 years ago when the last 'Ice Age' ended. Recent research univocally affirmed it was the most severe catastrophe that pushed human being and other species of the world to near extinction. The world is lucky enough that human and natural endeavour helps to restore the planet. After 11,000 years later the world is now in great frustration whether living beings will exist due to a human induced catastrophe – climate change. Five years ago, the world was still engaged in debating whether a climate change was taking place, and most important if it was human-induced. Climate change scepticism was a flourishing industry. Today, the debate is over and climate scepticism is an increasingly fringe activity. The United Nations Intergovernmental Panel on Climate Change (IPCC)[i] has unequivocally affirmed the warming of our climate system and linked it directly to human activity. Their message is simple:

- We know enough to act;
- If we do not act now the impacts of climate change will be devastating;
- And we have affordable measures and technologies to begin addressing the problem now.

Climate change is a human development issue which undermines expanding human potential, developing capabilities and enlarging freedom. Climate change threatens to erode human freedom and limits choice that calls into question the enlightenment principle of human progress 'future looks better than the past'.

The 13th session of the Conference of the Parties (COP-13)[ii] of United Nations Framework Convention on Climate Change (UNFCCC)[iii] was held at Bali, Indonesia from 3-15 December 2007, delivered a roadmap commonly known as Bali Action Plan (BAP) that covered a wide range of topics, including finalizing the Adaptation Fund under the Protocol, a decision on reducing emissions from deforestation in developing countries, outcomes on technology transfer, capacity building, the Kyoto Protocol's flexible mechanisms, the adverse effects of combating climate change, national communications, financial and administrative matters and various methodological issues. The main focus in Bali, however, was on long-term cooperation and the post-2012 period, when the Kyoto Protocol's first commitment period expires. Negotiators spent much of their time seeking to agree on a two-year process – or 'Bali roadmap' – to finalize a post-2012 regime by December 2009. The discussions focused on how to follow up on the 'Dialogue on long-term cooperative action to address climate change by enhancing implementation of the Convention'. However, four major building blocks have been set to combat against climate change such as Adaptation, Mitigation, Financing and Technology Transfer. The paper focuses on the concerns of Bangladesh in the face of changing climate arena considering the above issues.

Climate Change and Bangladesh – A Possible Scenario Bangladesh would be one of the worst victim of incidence and intensity of hydro-metrological disasters induced by climate alteration. Different socio-physical factors such as huge population density, high rate of urbanization, unique geo-spatial settings contribute to make Bangladesh more vulnerable for the adverse effect of climate change. Bangladesh along with other LDCs with low adaptive capacity is likely to have the initial impact of climate change. Box 1 and Table 1 provide a brief outline of the projected damage possibly that Bangladesh can experience by climate change:

Box 1
Possible impacts of climate change to Bangladesh

- Rise in sea level, predicted 88 and 89 cm along the coastline of Bangladesh
- Roughly 25% of landmass is likely to be inundated permanently if sea level rises by 89 cm which might create 18 million climate refugees
- With rising sea surface temperature, it is very likely that the intensity and the frequency of the storm will increase
- Saltwater intrusion could further compound the problem by crippling the agriculture sector
- Loss of cultivable land and most of the land newly created coastline would be useless
- Riverbank erosion will increase
- The central and southern region are most prone to frequent flood, the north western regions are likely to experience a slow desertification
- The impact of climate change will drastically affect crop productivity, food security and livelihood
- It is likely to effect the prevalence of infectious diseases due to the effects of climate change
- Due to chronic malnutrition caused by shrinking food grain supply will create more vulnerable the health care and nutrition initiatives of Bangladesh

Table 1: Projected scenarios due to climate change in Bangladesh

Parameters	Worst Scenario	
	2050	2100
Relative Sea Level Rise	153 cm	460 cm
Land Subsidence	140 cm	240 cm
Shore Line Erosion	1.5 Km	3 Km
Loss of Habitable Land	16 km^2	34 km^2
Displaced Population	13 %	40 %
Reduction of Mangrove Area	79 km^2	95 km^2

Concerns for Bangladesh – In Light of BAP

Differentiated targets and timetables on a fair and equitable basis

The base of the Kyoto Protocol is 'common but differential responsibilities'. Under the same atmosphere we are living but with a common goal to mitigate the adverse climatic effect but responsibilities are not same. The 4th IPCC report has added urgency to the quest for deeper cuts saying that 'time is not our side, if we want to keep temperature rise below 2 degree Celsius, the global emission need to peak by 2015 and then be reduced by at least 50% by 2050 (1990 base year)'. This means industrialized countries cutting their emissions by at least 30% by 2020 and by at least 80% by 2050. Taking all these consideration it was LDCs expectation that Bali Action Plan would result firm political commitment for emission reduction for saving the Earth from the most threatening catastrophes. With uncertainty prevailing on the roadmap, it is apparently clear from the Bali talks that, the interest of LDCs which would be the worst victims of climate change, has been grossly ignored by the developed and advanced developing countries; both in the race of increasing GhG emission. And, ironically Bali Conference fails to instigate any political commitment for quantitative reduction of GhG even within the framework of Kyoto Protocol. Many countries, belonging to the Annex 1" of Kyoto Protocol which was on binding commitments on GhG emission reduction failed to meet their target by a long way which intensified the vulnerabilities of climate change to LDCs.

Forests as carbon sinks

The Kyoto Protocol only allows developing counties to promote afforestation and reforestation to tap financial incentives from carbon trading in forestry sector but this option is vehemently criticized by many countries due to the complicated system. Forest is the most important natural tool to fight against climate change. It can halt bio-diversity loosing, desertification and most importantly it captures carbon. Preserving forest and forest ecology should be encouraged and the world is committed to preservation and conservation by ratifying several international conventions and treaties. BAP should set the guidelines on how the forest would provide better result in terms of carbon capturing sidelining forest related trade. In practice, surprisingly alternative way of capturing carbon has sidelined its main agenda and that is Reducing Emission from Deforestation and Degradation (REDD). REDD as a controversial proposition by 10 tropical forest nations demands developed nations to provide financial incentives in order that forest conservation should be done for carbon sink. But REDD is not a feasible solution at all and can be considered as another threat to the loss of bio-diversity because implementation of REDD will keep forest dependent people away from resource extraction as the forest dependent communities are an integral part for conserving bio-diversity. Moreover, it can be viewed as a dirty market-based policy that will divide developing countries into another two subgroups, i.e., tropical countries and non-tropical countries. There are several major challenges which need to be considered in the implementation of REDD:

a) Rain forests have been plundered to ensure supply for pulp industry, or are being replaced by oil palm plantations and other forms of commercial use. Commercial forest products are the major export items of many countries. In many developing countries such un-sustainable export led economic policies were advocated and imposed by IFIs which should be reviewed.

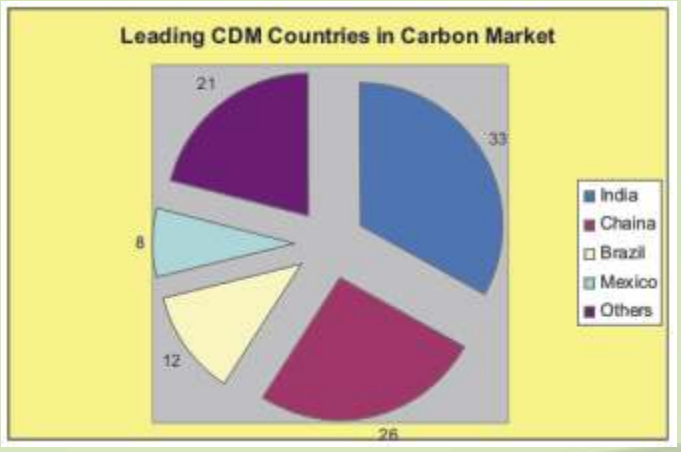
b) Aid ineffectiveness due to corruption and ill-governance is a common phenomenon in most of the developing countries. REDD may not succeed if underlying causes of ill-governance and deforestation: corruption, tenurial security, illegal logging, fires are not adequately addressed.

c) REDD must include civil society organizations, local governments in the decision making and implementation process and incorporate community perspectives and needs.

Forest should be the key weapon against climate change especially for low resilient countries. If the forest sector is regulated through market mechanisms, forward and backward linkages of forest will be collapsed resulting in another threat to the planet – bio-diversity loss. Therefore, a transparent and climate proofing forest policy is now the demand of time and developing countries should come ahead with common consensus in this regard.

Market mechanisms to reduce emission – no significant achievement

The Kyoto Protocol introduced a number of market-based mechanisms to reduce the cost of climate mitigation. CDM' – the most familiar mechanism to assist developing countries now appears as only a market instrument where climate issue is less important. Countries having less developed economy are not able to utilize the Adaptation Fund controlled by the Global Environment Facility (GEF). Several underlying causes make it difficult such as domestic investment policy, political and social unrest, corruption, bureaucracy of CDM governing board and complex CDM project approval system. Within the developing countries, countries of advanced economies like India, China, Brazil are the most prime beneficiaries of CDM fund using their expertise and investment friendly environment. Countries like Bangladesh that are likely to suffer most from the climate change are not getting any benefits from the CDM as they are not hugely involved with development activities where CDM could fit.



Besides, the LDCs and many of the developing countries are not getting required support out of the Adaptation Fund (2% money generated from every CDM project will be deposited to Adaptation Fund). To date, in Bangladesh with support from UNDP, a Landfill Gas Recovery project, two composting projects and a poultry waste project were completed. It has also successfully designed four waste projects, some of which have received interest from European investors to provide finance where 664 CDM projects are now in operation in the Asia Pacific region. It is a long expectation, all LDCs would enjoy an equitable and sustainable mechanism that encourages both developed and developing countries to participate emission reduction which will simultaneously accelerate economic growth and would be climate proofing. But in reality in Bali very few discussions were conducted on the issue that makes the fate of market mechanisms of carbon trading gloomy in post-Kyoto regime. Adaptation: what is the implication for Bangladesh? Developing countries, especially a country like Bangladesh would require huge amount of extra financial support as it will be the most affected by climate change and with fragile economic and technological capacity to cope. Bangladesh was the fore runner to prepare and submit the National Adaptation Programme of Action (NAPA) in 2005 where community-based adaptation and mitigation were prioritized. Ironically the stakeholders were not properly consulted and therefore all the recommendations and suggestions became fruitless and now NAPA is considered as a complete dead document. At present no comprehensive either short- or long-term plan exists in Bangladesh to adapt and mitigate the adverse effects of climate change that eventually make Bangladesh more vulnerable. Adaptation is positively correlated with financing and transfer of technology as without proper financing, adaptation is not possible and as long as technology cooperation is not fairly established adaptation will remain a pipedream. Therefore, adaptation should not be dealt in isolation rather financing and technology cooperation should be treated equally. Finance: what should be the sustainable mechanism?

The question of financing of climate action is the key to the identification of an effective climate action. Both public and private finance are essential for adaptation, for technology transfer to developing countries, and to implement successfully any comprehensive and long-term strategy to combat climate change. Climate-friendly investments need to be multiplied through national and international frameworks, and the current international carbon market needs to be enhanced in order to scale up private flows. However, external funding must be additional to national resources obtained through domestic savings and taxation. Governments have an obligation to establish a supportive framework for investment. Local capital markets should facilitate long-term investments in adaptation measures. Carbon taxes or the auctioning of emissions allowances can also raise resources that can be used for this or other purposes.

I. Management of the fund

At present the adaptation fund is managed by GEF and fund managed by the 2% levy comes from carbon trading and the CDM and GEF finding model is difficult to access and dispute. Besides, under the carpet of GEF, the World Bank invests a lot of climate sensitive projects. Thus, a friendly body and adequate adaptation fund is demanded.

II. Compliance to the commitment

Although adaptation fund is essentially required for the poor countries but adaptation without mitigation is pointless. Apart from this, total capital of the fund is too low. Only USD 48 millions has been delivered to support LDCs adaptation while USD 230 million has been committed and according to OXFAM International at least USD 50 billion is the annual requirement to support adaptation.

Besides, it is another question how additional fund for adaptation will be managed as yet a government structure is not prepared to handle this huge amount and an usual failure can happen. However, for additional adaptation money and for its transparent management two pertinent concerns should be resolved:

Technology transfer, cooperation and trading

Technology is a major element in addressing climate change in terms of a potential for existing and new technologies to play a key role in global and domestic monitoring, mitigation and adaptation strategies and action. But trading and transfer of technology is now a complex system to deal and all trades have to follow the WTO[vi] rules which are dominated by the North. Given all the associated complexities of technology transfer and responding to the urgency for diffusions of knowledge in combating climate change 'technology cooperation' would be the ideal approach instead of technology transfer. 'Technology cooperation between companies has been happening since the 'Industrial Age' began and there is no reason that such a cooperation could be carried out in the development of clean technologies as long as a market is available. Paving the Road of Pollution Free Atmosphere: What Needs to be Done?

Climate change is a major challenge of the 21st century, more so for the Asia Pacific region for its high vulnerability due to large poor populations with low adaptive capacity. Indeed 90% climate related issues affected the region and contributed to over a million of death since the 1950. Current evidence suggests that the key drivers of both the social and economic developments were adversely affected by climate change. Therefore, it is necessary to consider climate change related issues and impacts on our development planning.

But climate is a global threat to all nations where single nation initiatives can contribute very little. Only holistic and collective action can mitigate the adverse effects of climate change. What Bangladesh can do is play a strong role in international climate negotiations by developing its negotiation capacity and adaptive skills (physical, social and human) and by using internal resources for small-scale mitigation. Besides, since without a global consensus the climate threat is irreversible Bangladesh can lead the LDCs to make its own stance. Few major options that Bangladesh can shoulder to fight against this catastrophe can be:

- Develop expertise on Multilateral Environmental Agreement (MEA) negotiations.
- Develop local technical expertise on climate issues using the knowledge and experiences from different success cases. Experienced national and international personnel can help to develop expertise.
- Leading regional groups when negotiating as Bangladesh will be the most affected.
- In depth understanding of 'environmental goods and services' while trade issue arises.
- Massive and innovative awareness campaign regarding climate change in easy to understand language to the people avoiding orthodox campaign.
- Formulate realistic national action plan for 'climate fight'

Endnotes:

[i] The Intergovernmental Panel on Climate Change (IPCC) is a scientific body tasked to evaluate the risk of climate change caused by human activity. The panel was established in 1988 by the World Meteorological Organization (WMO) and the United Nations Environment Programme (UNEP), two organizations of the United Nations.

[ii] The Kyoto Protocol is a code to the International Framework Convention on Climate Change with the objective of reducing greenhouse gases that cause climate change. It was agreed on December 11, 1997 at the 3rd Conference of the Parties to the treaty when they met in Kyoto, and entered into force on February 16, 2005.

[iii] The United Nations Framework Convention on Climate Change (UNFCCC or FCCC) is an international environmental treaty produced at the United Nations Conference on Environment and Development (UNCED), informally known as the Earth Summit, held in Rio de Janeiro in 1992.

[iv] According to the Kyoto Protocol these are countries that are responsible for 55% carbon emission in the atmosphere.

[v] The Clean Development Mechanism (CDM) is an arrangement under the Kyoto Protocol allowing industrialized countries with a greenhouse gas reduction commitment (called Annex 1 countries) to invest in projects that reduce emissions in developing countries as an alternative to more expensive emission reductions in their own countries.

[vi] The WTO (World Trade Organization) is an international organization designed to supervise and liberalize international trade.

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(Disclaimer: The views and analysis are of the author and may not necessarily reflect the views of Centad)

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