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Environment

Climate change and Bangladesh : A perspective on where are we

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Meliting polar ice (left) and Sidr ravaged Sundarbans

Like the rest of the world, Bangladesh is also seeing significant changes in the climate and feeling its impact in recent years. Changes in rainfall patterns, droughts in rainy seasons, late monsoon, recurring floods and warm winters are all obvious signs of these changes. The impact -- of these changes on the lives of the people and the economy, infrastructures, agriculture and food security are beginning to unfold, it seems, as evidenced by cyclone Sidr.

The government's concern was flagged by the honourable Chief Adviser in the recent meeting of the heads of state in New York in September 2007. Of particular concern is the vulnerability of Bangladesh to sea level rise. Scientists of the Inter-government Panel on Climate Change Convention (IPCCC) have predicted that a 45 centimetre rise in sea level may submerge around 11 per cent of the total land mass of Bangladesh, creating 5.5 million refugees. This will put the food security, health, communication, infrastructure and economy of the nation at grave risk. In one of the worst case scenarios, a sea-level rise of 1 metre would be catastrophic affecting nearly 30 million people and inundating roughly 15-18 per cent of the country.

Bangladesh is not prepared in any way to face such a massive change. It cannot cope with millions of 'climate refugees' as people will tend to move out of inundated areas. Its existing land mass is very small at 144,000 square kms with over 140 million people residing in it and loss of even one-tenth of its total land area will have all the potential of creating a regional disaster with spillover of refugees into other countries. This could lead to regional instability and human insecurity. The worst case scenario of 1 metre rise of sea level would affect the country in untold ways and render a failed economy at worst.

It is nearly impossible to predict the impact in concrete terms, but it is

recognised by the international community that it could be a matter of survival for Bangladesh should such a situation arise. Social and economic impact of even a least case scenario is unpredictable. Given the climatic changes felt currently and their visible local level impacts, there is no doubt that climate change is auguring major socio-economic impacts on the country in the very near future. It is going to take sometime for the country to identify and assess all the changes that are occurring due to climate change.

As the population expands and agricultural lands are lost to settlements and other development projects, the pressure on keeping the agriculture sector healthy and able to provide for the large population will be enormous. Food security will be severely affected if the coastal areas are lost as they also form a significant portion of the "bread basket" of the nation. Even without inundation of the coastal areas, given the current patterns, an estimated 40 per cent of the crop yield will be reduced by 2050 due to climate change variability according to local experts. Major industries in the coastal zone and other important infrastructure may have to be abandoned causing a massive blow to the economy. Communication to the only sea port may be affected. It is impossible to put a figure on the economic loss that could result, and it would not be very wrong in guessing that it could run into hundreds of billions of dollars.

The coastal zone, though protected by polders and dykes, is extremely vulnerable since these are very old, of lower heights than current need and not maintained well and may develop breaches. It is impossible to predict accurately how much of the 710 km long coastal economic zone of Bangladesh will be lost and what the impact on the people living there will be. If there is intrusion of sea water into internal zones through the major rivers, then there will be massive water logging in inner areas causing disruption of lives and livelihoods. It will affect fresh water fisheries badly and bring health risks through emergence of new and old diseases like malaria, kala azar and water borne diseases, and also badly affect the biodiversity and ecology. Loss to infrastructure including homes, schools, offices and industry, and communication would be colossal and may be impossible for Bangladesh to replace or rebuild.

The economic setback suffered due to annual disasters like floods, cyclones and storm surges are overcome by sheer resilience and hard work of the population. But it is doubtful if Bangladesh will be able to withstand a disaster of such proportions as a one-metre rise in sea level. It would require international support and good will to prepare in advance for such a devastating change, should it occur. Only urgent actions to reverse the trends of climate change by drastically reducing carbon emissions globally on an emergency basis by all the countries of the world could save the world.

Bangladesh is used to coping with disasters on a yearly basis. However, the tropical cyclone Sidr with a 100 mile long front covering the entire breadth of the country and packing winds upto 240 kms per hours, was of epic proportions. It was an extreme mega event in the last 50-100 years of recorded disasters in terms of its scope, intensity and impact. The loss of lives was minimised to less than 3500 (another 3000-3500 are missing by some counts) due to early coordinated evacuation.

Bangladesh, due to its vulnerability to disaster, has over the years built up an efficient disaster response mechanism. But Sidr, which

made landfall in the evening of 15 November 2007, was beyond the response capacity in the early stages after it struck as it left everything in its path totally or partially destroyed. The entire country was without electricity for two days and communication was snapped almost totally with the Southern part. More than 8.5 million people in 30 districts were affected by the cyclone, 11 of the districts very badly. More than half a million homes have been completely destroyed and another nearly 1 million homes partially destroyed, more than 10,000 schools totally or partially destroyed. The sheer intensity of the category-IV cyclone is indicative of abnormal change in the climate.

Two recurrent floods in the same year, drought and cyclone Sidr in 2007, which are all unusual, has made the case of Bangladesh as a veritable victim of climate change gain more credence. It is time to reflect how the most vulnerable and poor countries like Bangladesh are going to face climate change in future.

The extreme events of 2007 and its effect on the country's economy are currently being felt nationwide. They are taking a big toll on the economy with the GDP dipping from over 7 per cent to nearly 6 per cent already. Bangladesh is having to import food for meeting its food security for the first time in three decades and the cost of rebuilding in the aftermath of Sidr is estimated at US \$ 1 billion. If the international community is serious about assisting Bangladesh to recover, then the international debts should be waived. Unless immediate debt relief is provided, Bangladesh will not be able to keep up with the major achievements that it made in the Millennium Development Goals (MDGs) in the areas of health, education, child care and sanitation, and may even fall back to a great extent. This would make a mockery of the support to countries like Bangladesh for achieving the MDGs.

Bangladesh, being one of the least emitters of CO₂ and one of the most vulnerable at the receiving end of climate change, has not received the kind of international support that it deserves in order to better prepare for climate change through adaptation and mitigation. International support through the Global Environment Facility (GEF) falls far short of the actual requirements for mitigating the effects of climate change on Bangladesh. On the other hand, the global funds like GEF are highly competitive amongst countries, time consuming to prepare, has to meet high international standards for proposals and stringent conditions of eligibility which makes it difficult for smaller countries like Bangladesh, lacking the capacities, to avail such funds easily. Unless the international community rethinks and readjusts its policies for providing condition-free and easily available support to the LDCs, who are going to be most affected by climate change, countries like Bangladesh will remain most vulnerable and enjoy only lip service from the developed world.

So far, the development community has been involved in climate change activities in the country in a very limited way. With some international support, Bangladesh has developed the National Adaptation Plan of Action (NAPA), contributed to the international dialogue on climate change by reporting through the National Communications and is preparing the National Capacity Self Assessment (NCSA). A Climate Change Cell, set up in the Department of Environment, is working to integrate climate risks with disaster management, conducting research, building a database and networking. Some piloting on adaptation is also being done. There has been no effort on mitigation even though there is a lot of potential to do so without compromising the economic pace of the country, if

technology transfer is provided through international support. It has been done successfully in many countries of the region and Bangladesh needs to learn from regional experiences without having a closed mindset.

It is time for the United Nations, multi-lateral banks and bilateral development partners to come forward to assist the country in a major way and in a coordinated manner. There needs to be more resources for advocacy and awareness campaigns locally to let people know about the threats from climate change and for building local level capacities for adaptation, as the emphasis of Bangladesh's climate change response will be on adaptation primarily while mitigation can be piloted too. The partnership has to be expanded to include the local private sector in climate change activities. Given the current global urgency and significant thrust on facing climate change, and the particular vulnerability of Bangladesh, the development community has to come forward in a major way to assist Bangladesh.

Time has come for Bangladesh to be able to articulate its demands for meeting the climate risks in its various sectors such as agriculture, food, health, education, water resources, land, forest, fisheries, industries, communication, disaster management, etc. This would require a comprehensive risk assessment in each individual sector and across thematically linked sectors. Also it is needed to revise the policies of each sector to accommodate climate change concerns and development of matching action plans for each sector with concrete ideas for meeting the impacts of climate change.

This would also require building capacities for meeting them at all levels -- national, sub-national and local or community levels. In order to have a nationwide coverage there needs to be a 'national programme approach' which brings into it a holistic dimension of needs assessment across sectors, research, planning, programming, implementation, coordination, monitoring, evaluation and capturing of lessons learnt for building the position of Bangladesh for climate change negotiations.

A national programme, led by the Ministry of Environment and Forest as the focal point of the government for the United Nations Framework Convention on Climate Change (UNFCCC), will enable the country to face the risks of climate change and its impacts through mitigation and adaptation under a comprehensive national approach. The overall objective of the climate change programme would be to build national capacities for integration of climate change issues in national planning and across sectors, development of policies and strategies for pre and post-Kyoto regime; research and analysis on issues of significant importance related to climate change and tracking the change occurring at all levels (macro, meso and mirco); public-private (including community) partnership in strategic initiatives to address climate change through both adaptation and mitigation measures; and determining and enabling financing and appropriate technology options for climate change related initiatives.

The programme has to be flexible enough to allow for independent projects to accommodate funding criteria needs of global funds like GEF and other funding mechanisms like CDM, but through the above approach of a nationally coordinated programme.

Even though it is at great peril from climate change while being almost a negligible contributor in the global community to carbon emissions

with only 0.3 metric ton per capita emissions, Bangladesh remains committed to joining the international community in facing the challenge of reversing climate change. By the same token, the emitters have a moral responsibility to support countries like Bangladesh to cope with climate change. A national programme can bring both sides together for a common cause.

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