

BANGLADESH
POLICY NOTE ON CLIMATE CHANGE
11 FEBRUARY 2009

OVERVIEW: • *Climate variability and change are critical development issues for Bangladesh.* The country is ranked as the most vulnerable to natural disasters due to frequent cyclones, storm surges and floods, coupled with a high population density and growth, and low climate resilience. In most years between 30-50% of the country is affected by floods. Climate change is projected to change the intensity and frequency of natural disasters, exacerbate the extent of flooding and negatively impact agricultural productivity, infrastructure and development prospects. • Bangladesh has already taken action to face the climate challenge by adopting various policies to address climate change and investing heavily in adaption measures. The recently prepared *Climate Change Strategy and Action Plan* articulates clearly how Bangladesh intends to scale up its effort to become resilient to climate change. • In September 2008, the donor community agreed to establish a Multi Donor Trust Fund for Climate Change in Bangladesh to assist the Government in implementing its Strategy. The World Bank was asked to administer the Trust Fund. The Trust Fund will enable to channel climate change assistance in a more harmonized approach and avoid overlapping activities and to enable Bangladesh to effectively use international assistance for climate change, and attract substantial funding in the future.

THE CLIMATE CHALLENGE

1. Bangladesh's greatest challenge is to lift 50 -55 million people out of poverty. However, it cannot alleviate poverty, without making climate change an inherent part of its development strategy. Otherwise much of past and ongoing effort can be washed away by the possible impacts of climate change.
2. Bangladesh is currently ranked as the most climate-vulnerable country in the world. Increased global temperatures are likely to increase the frequency and intensity of **cyclones** in the Bay of Bengal, to increase monsoon rainfall which will result in additional **flooding** in the Ganges – Brahmaputra- Meghan Basin, and to elevate **sea level** which would then increase coastal flooding and saline intrusion into aquifers. The resulting impact on people's livelihood can be devastating, especially in light of Bangladesh high population's density.
3. Water related impacts of climate change will likely be the most critical concern for Bangladesh in terms of urgency, severity, and economic consequence. Specific impacts include:
 - Coastal Resources. The greatest impacts from climate change are projected in the coastal areas. These resources are a vital asset, livelihood resource and support base for the wider rural economy. The Inter-Governmental Panel on Climate Change (IPCC) estimates suggest an increase in sea level between 9 – 88cm by 2100. A 45 cm sea level rise is projected to inundate 75% of the Sundarbans. A 1 meter rise in sea level would flood 18% of the total land, directly impacting 11% of the population.

Inundation on this scale would present unprecedented challenges in terms of loss of income, displaced populations and exacerbate stresses on infrastructure. In addition the quality of groundwater resources is likely to worsen with sea level rise in the coastal districts. This has important implications on the productivity of agriculture and drinking supply for rural communities.

- Floods and Droughts. Flood risks already pose a significant burden on the economy (e.g. 2004 flood damages were estimated at \$2.3 billion) with over two-thirds of the country lying below 5 meters above sea level mark. Vulnerability to floods and the potential for economic damage is considerable suggesting the need for a stronger emphasis on protecting and climate proofing high value assets.
- Agriculture: The agricultural sector employs over two-thirds of the labor force and contributes to 22 percent of GDP. The effects of climate change on key agricultural crops remains uncertain. Estimates suggest that production will be negatively affected due to crop losses from longer periods of flood inundation and increased salinity levels. In addition the areas suitable for agricultural production could decline due to increased erosion.

ACTIONS TAKEN BY BANGLADESH

4. *At a global level*. Bangladesh has played a significant role in the global climate community since 1998 in furthering the Climate Change agenda for the most vulnerable and least developing countries (LDC). At the Bali Conference in December 2007, Bangladesh emphasized targeting food security, water, energy, and livelihoods for LDCs. In February 2008, Bangladesh represented the LDCs at the United Nations General Assembly to focus immediate international support to meet the Climate Change impacts. Bangladesh continues to lead current round of Climate Change negotiations for a fair and equitable post-Kyoto Framework and outcome for developing countries at the Copenhagen Conference of Parties (COP 15).

5. *At a country level*. Bangladesh has already adopted various policies to address climate change and invested heavily in adaptation measures. It has invested in flood management schemes, coastal embankments, cyclone and flood shelters, as well as in raising roads and highways, and in researching and developing a climate resilient farming system. As a result Bangladesh's ability to manage disasters, in particular floods and cyclones, has improved dramatically since 1991.

6. Recently, it has prepared a *Climate Change Strategy and Action Plan*, which articulates clearly how Bangladesh intends to scale up its effort to become resilient to climate change. The strategy entails **six pillars**:

- **Pillar 1: Food security, social protection and health**. Climate change is likely to impact most severely the poorest and most vulnerable in society. Hence activities under this pillar will focus on the needs of this group for food security, safe housing, livelihood, employment and access to basic services, including health.

- **Pillar 2: Comprehensive disaster management.** Activities under this pillar will focus on further strengthening the existing comprehensive disaster management systems to deal with the increasingly frequent and severe natural catastrophes that are likely to occur as a result of climate change.
- **Pillar 3: Building resilient infrastructure.** Activities under this pillar will focus on climate proofing existing infrastructure (e.g. coastal and river embankments) and building urgently needed infrastructure (e.g. cyclone shelters and drainage) in order to deal with the likely short and medium term impacts of climate change in climate-risk areas including the coastal zone.
- **Pillar 4: Increasing the knowledge base.** Activities under this pillar will focus on undertaking research to estimate the likely scale and timing of climate change impacts on different sectors of the economy in order to better plan future investment strategies; and on ensuring that Bangladesh is effectively linked to regional and national knowledge networks.
- **Pillar 5: Mitigation and low carbon development.** Even though Bangladesh’s contribution to the generation of greenhouse gases is very low, Bangladesh, will under this pillar, ensure a low carbon development and play a part in reducing carbon emissions.
- **Pillar 6: Capacity building and institutional strengthening.** To meet the challenge of climate change, the capacity of government ministries and agencies, civil society and the private sector will be strengthened.

THE WORLD BANK ASSISTANCE

7. The World Bank is helping Bangladesh address its climate change challenge through a mix of analytic work, lending and technical assistance:

- **Analytic work** has focused on studying (i) the implication of climate change on food security to develop adaptation measures in the **agricultural** sector; (ii) the implication of **salt water intrusion** in the coastal areas; (iii) the viability of market based **agricultural insurance** in Bangladesh; and (iv) quantifying the **economic impact** of climate change.
- On the **lending side**, the World Bank has been involved since 1996 in the rehabilitation of **coastal embankments** to improve the security of people and livestock living along the cyclone prone coastal areas, the ongoing *Water Management Improvement Project* focuses on a new and locally driven participatory approach for sustainable water resource management. This work is further expanding under the Flood Recovery, the Cyclone Restoration and the Social Investments

- projects. In addition, **since IDA 15 includes a special allocation on Climate Change**, Bangladesh will be able to access additional funds for climate change activities.
- On the **technical assistance** side and under the broader **South Asia Water Initiative**, the Bank is supporting Bangladesh to tackle water resource management issues in the regional context. In particular it is assisting the Government in identifying priority actions for the **national water resources management plan**, advancing the **regional Himalayan Watershed** agenda -melting of the water tower - and launching a **Strategic Assessment of the Ganges River Basin** to facilitate dialogue among the Ganges–Brahmaputra riparian especially on regional flood management systems.
 - **Multi Donor Trust Fund on Climate Change**. In September 2008 during a High Level meeting was organized by DFID in London, the donor agreed to establish a Multi Donor Trust Fund for Climate Change in Bangladesh. The World Bank was asked to administer the Trust Fund. The trust fund will enable development partners to channel climate change assistance in a more **harmonized approach** and avoid overlapping activities. By using consolidated procedures, it will considerably **reduce transaction costs** for global and bilateral funds. Accountability and sound targeting would be assured through **robust fiduciary management** in fund design. More importantly the MTFD will enable Bangladesh to **effectively use international assistance** for climate change, and attract substantial funding in the future. As of today, about US\$ 100 million has been committed.