

Interactive Dialogue on **Climate Change, Bangladesh and the LDC Expert Group (LEG)**
Workshop on National Adaptation Programs of Action (NAPAs) to be held in Dhaka during
18-21 September 2002

This Dialogue is aimed at generating an on-line debate among climate change experts and interested professionals, focusing on the following issues: 1) How can the LDCs' position and clout in climate change negotiations be strengthened? 2) What are the considerations that should go into the NAPA preparation process in the LDCs? 3) How to ensure implementation of the agreed principles of equity and common but differentiated responsibilities? 4) How can Bangladesh provide intellectual leadership to forge a LDC strategy in climate negotiations? For initiating the discussion, an introduction by Dr. Mizan Khan is provided below.

Dr. Khan, Policy Specialist of SEMP and Vice Chair of the LDC Expert Group, UNFCCC will moderate the discussion. Questions and comments may be directed to him as well as to other participating members in this debate, who are expected to react. This is expected to be a rewarding exercise, producing a rich harvest of ideas for the up-coming NAPA workshop in Dhaka and climate negotiations in Delhi and beyond.

Science of Climate Change: The temperature of the earth is determined by the balance of energy coming to the earth from the sun (solar radiation) and energy leaving the earth into space (infra-red radiation): sunlight passes through the atmosphere and warms the earth; infra-red radiation is given off by the earth; most escapes into the space which cools the earth. However, part of the infra-red radiation is trapped in the air, like in a greenhouse, by the gases, such as carbon dioxide, methane, nitrous oxide, chlorofluorocarbons (CFCs) and some others, which reduces the cooling effect. Scientific evidence on human-induced climate change has evolved in the last 25 years.

Carbon dioxide is the most important greenhouse gas (GHG) released through the burning of fossil fuels, such as coal, oil and natural gas. Almost half the CO₂ emitted by humanity remains in the atmosphere; the rest is absorbed by vegetation and the oceans. CO₂ level has increased by one-third since the industrial revolution, and it is now estimated by scientists that its emissions will have to be reduced by up to 60-70% to stabilize concentrations of GHGs in the atmosphere and halt climate change. How rapidly CC occurs depends on the types and levels of energy use, population size and the development of new technologies.

Effects of Climate Change: There has been a 0.7^oC rise in global temperature over the last century. According to the Intergovernmental Panel on Climate Change (IPCC) and other scientific studies, most of the rise in the last 50 years has been a result of human activities. The Third Assessment Report (TAR) of the IPCC predicts a 1.4 to 5.8 degree increase in temperature by 2100. Large changes in regions' rainfall and an increase in storminess of their weather are also likely. However, effects of climate change are not the same across the globe and this makes it real difficult to devise a globally implementable policy. For example, those regions less dependent on agriculture and natural resources may not care much, even benefit from predicted warming. But the developing, tropical countries of Asia, Africa and Latin America are likely to be affected most.

In its TAR, the IPCC states that the “effects of climate change are expected to be greatest in developing countries ... in terms of loss of life, effects on investment, and effects on the economy.” The IPCC concludes that LDCs will experience:

- greater food insecurity due to changing weather patterns;
- diminished access to water resources as precipitation decreases;
- irreversible loss of biodiversity;
- increased incidence of water-borne and vector diseases as climatic zones shift;
- sea-level rise leading to coastal inundation, erosion and salt water intrusion;
- greater incidence of flooding; and
- exacerbated desertification.

Bangladesh as a low-lying coastal floodplain is one of the most vulnerable countries in the world to the impacts of climate change. Such vulnerabilities have been recognized by several international studies including the IPCC.

Likely Effects of Climate Change in Bangladesh

- Impact on Agriculture
- Impact on Forest & Biodiversity
- Effects on Human Health
- Sea Level Rise
- Effects on Fisheries
- Drainage Congestion
- Impact on Fresh Water Availability
- Disturbance of Morphological Processes
- Increased Intensity of Natural Disasters (extreme events).

Relationship between Climate Change (CC) and Sustainable Development (SD): The relationship between CC and SD is complex. CC and its impact on our society, economy and environment add additional levels of complexity to ensuring SD. If the CC issue is addressed within the SD paradigm, the immediate concerns of poverty alleviation, safe water, health care, access to affordable and clean energy and adequate adaptation are pressed into the foreground.

CC is likely to undo the efforts aimed at achieving SD. Here is a vicious circle. Combating CC and adapting to its impacts are preconditions to ensuring SD. At the same time, economic development will enable countries to address climate change issues and impacts. One of the principles of the UNFCCC (Art 3.4) recognizes the Parties’ right to promote sustainable development, based on policies and measures to protect the climate system as appropriate for the specific conditions of each Party. Bob Watson, former Chair of the IPCC rightly argued that climate change is not an environmental issue, it is very much a development issue.

Contribution of LDCs like Bangladesh to Climate Change

Like other LDCs, Bangladesh makes minimal contribution to global emission of GHGs. The sectoral activities that contribute to GHGs, include energy, agriculture, forestry, livestock, transportation and households. According to the World Development Indicators, total emissions of CO₂ in Bangladesh was a mere 23 million tons in 1997, up from 7.6 million tons in 1980. Per capita emission of CO₂ is less than 0.2 ton in Bangladesh, compared to 1.6 tons in the developing countries and 4.0 tons in the world as a whole. Industrial country citizens emit per capita CO₂ several orders of magnitude greater than those of the LDCs. For example, an American citizen emits over 20 tons of CO₂ in a year.

Strategy to combat CC: There are two approaches to facing the challenge of CC: Mitigation and Adaptation. Mitigation refers to reduction in GHG emissions. It is a function of the types of energy use, population size and technology. Adaptation, on the other hand, seeks to reduce the adverse effects of climate change on human societies. The ability to adapt and cope with climate change impacts is a function of wealth/income, technology, scientific and technical knowledge and skills, information, infrastructure, policy and management institutions and equity. Even with significant reductions of GHG emissions today, adaptation is necessary in view of the already accumulated GHGs in the atmosphere. Adaptation can compliment mitigation in developing cost-effective strategies to reduce climate change risks. Climate adaptation and sustainability goals can be jointly addressed by changes in policies that lessen pressure on resources, improve management of environmental risks, enhance equity and adaptive capacity. If both approaches – mitigation and adaptation - are pursued together, they can make significant contribution to SD objectives. To LDCs, being insignificant global polluters, adaptation is the prime concern, though there are win-win mitigation options, which must also be pursued.

Status of CC Negotiations

CC negotiations are leading the global agenda today. Initially, the focus was on academic research. Since 1988, international negotiations have been in progress on reducing global emissions of GHGs. Now the debate is polarized, with America opting out of the Kyoto Protocol, adopted at the Third Conference of Parties (COP-3) of the UNFCCC in 1997. As of end August 2002, about 80 countries including the EU, Japan and some other Annex-I (industrial) countries have ratified the Protocol. The ratifying Annex-I countries so far cover only 36% of CO₂ emissions from that group. But there is a double trigger provision to bring the Protocol into force (Art 23): a) at least 55 Parties must ratify the Protocol, and b) the ratifying Annex-I countries must cover at least 55% of their total CO₂ emissions. Looking at the arithmetic of GHG emissions, Russia and Poland or Ukraine now hold the balance. Australia and Canada may follow the US in not ratifying the Protocol. The world community has missed a great gift to the on-going WSSD in Johannesburg. It is not likely to come into force even before COP-8 of the UNFCCC to be held in late October 2002 in New Delhi. The fate of the Protocol has great implications for the developing countries, for the LDCs in particular.

LDCs and CC Negotiations

Out of the 49 LDCs, 46 are Parties to the UNFCCC - 29 from Africa, 7 from Asia and 10 from the small island developing states (SIDS). With a population of 625 mn (10% of the world), the group differs in size, population and resource endowments. But they have largely common

concerns for environment and development. One such commonality is the degree and level of vulnerability to climate change and their low adaptive capacity. The on-going market-led globalization accentuates this vulnerability - LDCs with antecedent poverty suffer from global structural “omissions,” as argued by Nobel Laureate Amartya Sen. Economies and exports of these countries are largely agriculture and natural resource-based, which would be most affected due to climate change. This ‘double exposure’ makes the LDCs ‘double losers.’ While this group contributes least to global warming, they are the worst victims and least able to adapt. Extreme weather events, the frequency of which has increased in recent years, are already reversing the whole development efforts in many of them. In the SIDS, low-lying coastal and arid/semi-arid areas, the very survival of populations will be at stake due to sea level rise or prolonged droughts. So LDCs are particularly concerned about the unjust distributional impact of climate change. This places equity at the center of negotiations in LDC perspective.

The UNFCCC and Kyoto Protocol have specific provisions dealing with the most vulnerable and geographically disadvantaged countries including the LDCs:

Articles 3(2), 4.1(e) and 4.8 of the UNFCCC provide for “full consideration” of the “specific needs and special circumstances” of these countries in their mitigation and adaptation efforts.

Art 4.9 specifically categorizes the LDC circumstances for funding and transfer of technology.

Art 10b (i-iii) of the Protocol stipulates for adopting national and regional measures for mitigation and ‘adequate adaptation.’

Despite such agreed provisions, climate negotiations till recent times did not adequately reflect the specific concerns of the LDCs either in the common Texts or in the Texts proposed by the larger group of G77 and China. So the LDCs as a separate negotiating group within the UNFCCC has emerged two years ago, at the 12th Session of the Subsidiary Bodies of the UNFCCC held in Lyon, France in September 2000. Since then, negotiations within the Group and without have been held in Geneva, The Hague, Kampala, Male and Bonn. Finally, after tough negotiations, COP-7 of the UNFCCC held in Marrakech in October-November 2001 acceded to some of the issues and adopted some decisions that relate to the LDCs:

- Two new funds have been created under the Convention:
 - A Special Climate Change Fund (for adaptation, technology transfer and mitigation) for the Non-Annex-I (developing) countries.
 - A Least-Developed Country Fund (for implementation of the Convention and adapting to impacts of climate change); Canada and Ireland have pledged C\$ 10 million and US\$ 0.55 million respectively.
- An Adaptation Fund under the Kyoto Protocol will be established through levying 2% of the certified emissions reduction (CER) of CDM projects, to finance programs/projects; CDM projects in the LDCs have been exempted from this levy.
- There will be periodic review of regional distribution of CDM projects by its Ex. Board.
- Adopted a detailed Guideline for preparation of national adaptation programs of action (NAPA) by the LDCs on full-cost funding; NAPAs are intended as a communication of the “most immediate and urgent needs” of the LDCs against the predicted impacts of CC.

- Established a 12-member LDC Expert Group (LEG) as an advisory body to assist the LDC Parties for preparation and implementation of NAPAs; LEG comprises 9 members from the LDCs and 3 from the Industrial Countries.

The above indicates that Marrakech put adaptation on a new plane. It may be mentioned that till recent times, the dominant paradigm in global climate policy has been mitigation, for which both the Convention and the Protocol have a clear bias. The goal was to reduce the emissions of GHGs in the Annex-1 Parties for obvious reasons. Initially, developing countries also got busy with mitigation research. However, with all the liberal and open-ended compromises with the Protocol provisions and the lingering uncertainty of its coming into force, adaptation now tends to become the dominant paradigm. Some leading industrial countries are beginning to emphasize on further research and adaptation within. So non-investment in mitigation further exposes the LDCs in particular to the adverse impacts of CC. LDCs have argued for their adaptation needs from the beginning, but not at the cost of mitigation in the Annex-I countries.

LEG Workshop on Capacity Building for Preparation of NAPAs

In pursuance of its mandate, LEG has designed a two-year work program, with a major capacity building workshop involving all the LDCs as a key activity. Upon request by the Chair of the LEG, the Government of Bangladesh has agreed to host the workshop in Dhaka during 18-21 September 2002. The workshop is being sponsored by several donors, such as CIDA, DFID, GEF-UNITAR and the Government of France.

The objectives of this workshop are to:

- develop national capacity for NAPA preparation and implementation;
- raise awareness of adaptation & its links to poverty reduction and sustainable development; and
- launch the NAPA preparation process.

The LDC governments have been invited to send 3 representatives each to the workshop - one from the Ministry of Environment, one from the Ministry of Finance/Planning and the third from civil society organizations. Participants to the workshop include vice-ministers, secretaries and joint secretaries of LDC governments. It will be attended as well by representatives of many bilateral and multilateral agencies, such as the CIDA, DFID, GEF, World Bank, UNDP, UNEP & UNITAR. Bangladesh is nominating a multi-sectoral 15-member delegation to the workshop.

This widely-attended workshop provides an excellent opportunity for Bangladesh to project to the global community her vulnerabilities to CC, which are the result of actions beyond her territory and control. It also provides an opportunity to collectively craft a LDC strategy for the up-coming COP-8 climate negotiations in Delhi. Through providing intellectual leadership to the workshop, Bangladesh should be able to enhance her clout in the larger groups, such as the Group of 77 and beyond.