CHAPTER 13: ENVIRONMENTALLY SUSTAINABLE DEVELOPMENT

Introduction

The process of economic growth must be equitable as well as environmentally sustainable. The environmental efficacy deteriorates when the environment is degraded and the environmental balance disturbed through overuse, pollution, deforestation, and the consequences of greenhouse gas emissions. Environmentally sound development calls for actions to restore and maintain environmental health while pursuing socio-economic development. Internationally, there is broad consensus that the environment and production systems should be tailored to minimize damage to the environment to ensure the sustainability of development, and the environmental services should be directed towards poverty reduction.

Sound environment is a multisectoral concern and it contributes towards capacity building of other sectors and helps to facilitate effective coordination among sectors. Such an integrated pathway is crucial from the perspective of longer term development sustainability and for leaving the environment, as inter-generational equity considerations demand, in such a state that the future generations can meet their needs. *Nothing should be done today which will compromise the resilience and well-being of the current and future generations.*

The vision of the perspective plan is to take effective measures to retain the development gain from the adverse effects of climate change and global warming and to pursue the convergence of disaster risks reduction, climate change adaptation and environmental management to attain a resilient Bangladesh. The plan targets to take all possible steps to reduce disaster risk and to protect the vulnerable people from natural calamities, to take actions for the prevention of industry and transport related air pollution and to ensure disposal of waste in scientific manner. Steps will also be taken to make Bangladesh an ecologically attractive place and to promote tourism in this regard.

13.1 The State of Bangladesh's Environment

Bangladesh's environment is under threat from natural causes compounded by human-induced excesses owing to the pressure of population. Human induced threats to the environment include unplanned development activities, cutting of hills, deforestation; pollution of air, water, and land; overfishing; encroachment of rivers; conversion of wetlands into lands for agriculture and construction of buildings; over-utilization of groundwater; obstruction of drainage channels in urban areas; land degradation due to unbalanced use of chemical fertilizers, and also as a consequence of monoculture; and population pressure on land and other natural resources. The natural phenomena include arsenic contamination of groundwater, floods, river erosion, cyclones and storm surges, and salinity ingress in coastal areas.

13.2 Global Climate Change and Bangladesh

The greatest environmental risks now arise from the intensifying global climate change which is adversely impacting both human and natural systems. Human systems include river and other water bodies, agriculture and forestry, coastal zones and marine systems including fisheries, human settlements, energy, and industry, insurance and other financial services, and human health. Natural systems include rainfall, glaciers, coral reefs and atolls, mangroves, boreal and tropical forests, polar and alpine ecosystems, prairie wetlands, and remnant native grasslands. The degradation of the environment in Bangladesh from human encroachment makes the impacts of climate change even more severe. Natural disasters such as floods, cyclones, and drought are becoming more frequent and devastating in terms of economic and infrastructural losses and damages and health hazards (outbreak vector- and water-borne diseases). As a result of rising sea levels, a significant part of the coastal areas may be permanently inundated; displacing large numbers of people; and salinity will spread deeper and wider. Low rainfall

continue to cause drought, desertification in Barindra areas and inadequate groundwater recharge in drier parts of the country. Large parts of the rural economy, including the coastal areas, are threatened by natural disasters which destroy crops, infrastructure, livestock, and economic activities. As a result, poverty may widen and deepen. There is a direct linkage between poverty and climate change.

It is now recognized internationally that Bangladesh is at the forefront of adverse climate impacts. One key reason is the disadvantaged geographical location of Bangladesh at the confluence of three mighty river systems – the Ganges, the Brahmaputra, and the Meghna, with a long coastline and much of the country low-lying and flat. The country has limited control over its water resources as over 92 per cent of the annual run-off that flows through Bangladesh on to the Bay of Bengal originates in country from the upper riparian country. Another key reason is the extremely high population density. Thus, as a result of climate change, Bangladeshis are likely to face increasing risks to their security in terms of food, energy, water, livelihood, health, and habitat.

13.3 Responses to Environmental Challenges, Climate Change Impacts and Disaster Risks

The government has developed Bangladesh Climate Change Strategy and Action Plan (BCCSAP) and National Adaptation Programme of Action (NAPA) in 2009 to respond to climate change induced development risks and National Plan for Disaster Management (NPDM) in 2010 to address multi-hazard, multi-sectoral and multi-stakeholder risks and vulnerabilities and the revised Standing Orders on Disasters (SOD) in 2010 to prepare for and respond to disasters. GoB has also developed National Environment Policy (NEP) in 1992, National Forest Policy (NFP) 1995, National Sustainable Development Strategy (NSDS) and other relevant policies for environmental conservations. The basic approaches in BCCSAP, NAPA, NPDM, SOD, NEP, NFP and NSDS are to wise use of natural resources, disaster and climate resilient development initiative, pro-poor adaptation and mitigation strategies, green growth, eco-system based disaster risk reduction, all risk resilient urban development and pollution management. Although not required to reduce greenhouse gas emissions given its status as a least developed country, Bangladesh is committed to following a low carbon path, success of which would depend on provision of resources by the international community. But Bangladesh will not compromise on the need for accelerated economic growth and poverty reduction. Planning Commission has taken an initiative to mainstream poverty-environment-climate change and disaster risk reduction issues into development planning and budgetary process.

13.4 Environmental, Climate Change and Disaster Management Strategies

The major environmental, climate change and disaster risk reduction strategies include:

- Develop effective operational procedures in different ministries and agencies to implement environment, climate change and disaster agenda of the country and in possible cases, bring synergies amongst these agendas to ensure poor people are ultimately benefitted.
- Steps to ensure that human activities that increase disaster risks and degrade environment are contained through awareness-raising and, if necessary, recourse to legal means.
- Government's population policy will reinforce and incorporate disaster risk reduction and climate change strategy.
- Best utilization of the available land, arresting and reversing the land degradation process is a major policy thrust. In this context, a multi hazard risk integrated plan of action may be prepared. Also, especially for urban areas, further unplanned growth needs to be stopped and an urban inclusive renewal strategy will be formulated and implemented.

- Bangladesh is committed to conservation and enhancement of the country's biodiversity, which has been severely affected in terms of species losses and threatened species. The Biodiversity National Assessment and Programme of Action 2020 continue collection of information and analyses on the current state of biodiversity in the country and outline an action plan. Efforts to protect and enhance biodiversity will be strengthened.
- With growing population, a major focus will be given to managing and improving sanitation in both rural areas and towns and cities. Both awareness-building and increasing the availability of required supplies (such as sanitary toilets) is part of the strategy to improving sanitation.
- In rural areas, the arsenic contamination of groundwater will continue to be addressed with determination. Mitigation options include treatment of arsenic contaminated water.
- Increase the use of surface water sources. Deep aquifers appear to offer a long-term source of arsenic-free and safe drinking water.
- To improve navigability and water discharge, and to reduce flood risks, a strategy of dredging and training of rivers in a planned and phased manner will be pursued.
- Aforestation, particularly in coastal areas, is already a major thrust and will be strengthened in terms of strategic location and overall area covered. Particularly protective vegetation in the areas experiencing recurring river erosion and wind breakers in the cyclone prone areas.
- The policy of crop diversification will be strengthened and properly implemented, as it is economically sound and should help reverse the land degradation process.
- Integrated coastal zone management will continue to be a policy thrust. The Coastal Zone Policy and the Coastal Zone Strategy will be put to use, and may be revised and modified if necessary as the implementation process progresses. A major emphasis will be placed on equitable and sustained resource management, promoting resilience to cyclone and tidal surge including desalinization of water and land.
- In adaptation activities both structural and non-structural measures, as appropriate, will be undertaken to protect the people and equip them at the same time to respond better. The option of O&M and rehabilitation activities for embankments and polders to prevent flood waters and salinity intrusion will be examined and the best approaches identified for implementation.
- Communities, particularly those to be affected most by extreme climatic events, will be the focus for capacity-building and mobilization. Their economic uplift will be promoted as an integral part of the process.
- For 2009-10 budget year, the government allocated 700 crore Taka (US$100 million) for climate change activities, which is being utilized. The allocation will be increased in the coming years, as appropriate.
- Efforts will be made to mobilize net additional resources from bilateral & multilateral sources, including UNFCCC, for climate change interventions. .Since it is the developed countries that are responsible for climate change, and Bangladesh suffers from no fault of its own, climate justice requires that the developed countries provide necessary funds and technologies to Bangladesh, as also to other similarly placed countries, to enable them to mount appropriate responses to the intensifying risks from climate change.
- All necessary steps will be taken to utilize nationally and internationally mobilized funds properly and effectively for climate change, disaster risk reduction and green development.

- Efforts will be made to mobilize domestic and foreign fund for 'green growth' in all sectors and provide strategic environmental services for adaptation, mitigation and disaster risk reduction.
- Regional cooperation will be pursued for more effective flood and drought management as well as for basin-wide trans-boundary river management. This will be mutually beneficial for all co-riparians including Bangladesh. Climate change management through regional cooperation has good potential for mutual benefit. The regional countries can learn from one another's experiences and pool resources and expertise to develop appropriate adaptive capacities. Regional countries may also work together to protect and enhance their collective common interests in international disaster risk reduction and climate change negotiations.
- Adaptation must be the main focus for a country like Bangladesh; but unless mitigation starts immediately with drastic reduction of greenhouse gases, particularly by developed countries, climate change will continue to intensify with ever more adverse impacts, which will make adaptation increasingly difficult. If overall greenhouse gas emissions continue to increase, climate change may become unmanageable in 50 years' time.
- All development initiative needs to be pro-poor, environmental sustainable, climate change and disaster resilient. Therefore, Planning Commission and relevant agencies will develop proper capacity building mechanism to ensure that development projects are designed in a sensible way to increase country's resilience.
- Bangladesh will maintain and enhance its leadership among the LDC and champion the development of the damage and losses in the post COP 16 and COP 17 working Group to promote the evidence-based claims from the effect of climate change and impacts of tdisaster events.
- Strengthen and leverage the capacities of the Disaster Management Committees at District, Upazila, City Corporation, Pourashava and union levels to promote environment management and climate change adaptation as integral parts of disaster management as provided by the Standing Orders on Disasters.

Bangladesh urges, in association with the international community, that global warming be kept at 1.5°C - and in any case not to exceed 2°C to be incorporated in a binding agreement.