

## **Sustainable Development Framework** *Bangladesh Perspective*

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***Abstract:** Sustainable Development is a great concern not only to the people of Bangladesh but also to the world community due to climatic change, increased Green House Gases (GHGs) emission, loss of biodiversity and land degradation. Food security, human health and non-renewable natural resources are now at stake due to habitat degradation and disturbance in the normal life of the ecosystem. With a view to ensuring sustainable development, the efficient and effective sustainable environmental governance is a precondition. The civil servants are the prime actors to ensure sustainable environmental governance. The aim of this paper is to familiarize the concept of sustainable development and to sensitize the key officials of Bangladesh Civil Service, student of Public Administration and Environmental Management as well as other stakeholders about the priority environmental issues, to analyze the state of sustainable development in Bangladesh and to recommend some future course of actions toward this end.*

### **Introduction:**

The earth is now being threatened, the temperature of earth rises higher each year, the ozone layer is being depleted, the oceans are being increasingly polluted, the forests are being cut down at an alarming rate, the green track of earth surface is now being turned into desert and many living features are now being extinct. These environmental issues are the outcomes of industrialization, urbanization and modern civilization of human beings. These issues do not have any international boundary. Against these setbacks, the sustainable development not only in Bangladesh but also all over the world is now at stake. All of us- developed and developing nations- have a responsibility to conserve the environment and ecosystem in order to ensure sustainable development (SD).

### **Background:**

The United Nations (UN) took the first initiative toward sustainable development. The United Nations Conference on the Human

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Environment was held in Stockholm in 1972 which laid the foundation of SD. Later, the World Commission on Environment and Development was constituted in 1987 under the chairmanship of the then Norwegian Prime Minister Gro Harlem Brundtland. Her team prepared a landmark report on "Our Common Future" in 1989. Based on this report, the UN General Assembly adopted a resolution: 441228 to call for a UN Conference on Environment and Development.

The UN Conference on Environment and Development was held in Rio de Janeiro, Brazil, in 1992 which is popularly known as 'Earth Summit'. Three major conventions came out successfully as outcome of this summit i.e. United Nations Framework Convention on Climate Change (UNFCCC), Convention on Biological Diversity (CBD) and United Nations Convention to Combat Desertification (UNCCD). The ultimate objectives of these Rio Conventions (RCs) are to ensure sustainable environmental governance. The summit also adopted the Rio Declaration which sets 27 principles supporting the SD and agreed to a plan of action known as Agenda 21 in which a national sustainable development strategy recommended.

In 2000, the UN also adopted Millennium Development Goals (MDGs). The significant goals are: eradicate extreme poverty and hunger; achieve universal primary education; promote gender equality and empower women; reduce child mortality; improve maternal health; combat HIV/AIDS, malaria & other diseases; ensure environmental sustainability; and develop a global partnership for development. Bangladesh has a good success story in achieving some of the MDGs like poverty reduction, primary education, women empowerment; reducing child mortality and combating major diseases.

Ten years after the Earth Summit, the World Summit on Sustainable Development in short WSSD held in Johannesburg, South Africa in 2002. The main items of agenda of the WSSD were: poverty eradication, sustainable consumption and production, natural resource base of socio-economic development, globalization, health, regional priorities and sustainable development governance. This summit

adopted a Plan of Implementation. The main components of this plan are - Water, Energy, Health, Agriculture and Biodiversity.

#### Concept of SD & Principles:

What do we mean by the term 'Sustainable Development'? Gro Harlem Brundtland defined, "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs". If we analyze her definition, it clearly indicates that we (present generation) should consume our natural resources in such a way, so that, our future generation would not be deprived of the gifts of the nature. There are certain principles of sustainability. These are: operation must be within the carrying capacity of the ecosystem; harvesting rate should not exceed the regeneration rate; the rate of exploitation of nonrenewable resources should be equal to or less than the rate of development of renewable substitutes; and waste emissions should not exceed the assimilative capacity.

#### Challenges and Issues of SD:

There are enormous challenges toward sustainable development. The major challenges of sustainable development - as identified by the world community - are climate change, loss of biodiversity and land degradation. These challenges and issues are also visible in Bangladesh. These are discussed chronologically:

#### Climate Change:

Climate Change is now a scientifically established fact. According to UNDP's Human Development Report 2007/108, "global warming is already happening. World temperatures have increased by around 0.7°C since the advent of the industrial era and the rate of increase is quickening". The Fourth Assessment Report (FAR) of Intergovernmental Panel on Climate Change (IPCC) was released on 2nd February 2007 based on the outcome of scientific analysis. IPCC Chairperson Rajendra Pachauri said that "global warming will affect much of life on earth in this century" and he further added that "poor people are the most vulnerable and will be the worst hit by the impacts

of climate change". According to Global Climate Risk Index 2010, Bangladesh is the most vulnerable country (MVC) of the world due to natural disaster and sea-level rise (SLR) in terms of the number of people living in low-lying coastal zones. Currently, almost 40 million people live in the coastal areas of Bangladesh. It is predicted that if one meter of SLR happens by the year 2050, this would cause the inundation of 17% of coastal land which is likely to generate 30 million climate refugees.

The Priority Environmental Issues (PEIs) in this area are: increase of GHGs, temperature rise; melting ice berg in southern, northern poles and Himalayas region; consequently sea level rise; high intensity of rainfall; increased natural disasters (cyclone and storm surges). Frequent and prolonged floods as well as wider salinity intrusion in the coastal zone of Bangladesh are the adverse impacts of climate change. It is considered to be one of the most serious threats to the world's environment - with its potential negative effects on food security, agriculture, human health, fisheries, biodiversity, water, infrastructure, economic activities and other natural resources.

#### Biodiversity:

Biodiversity is an essential component to sustainable socio-economic development. Through agriculture, forestry, livestock and fisheries - biodiversity provides food, fiber, medicine and timber. In Bangladesh, biodiversity is being threatened due to heavy pressure on the ecosystem. The PEIs are: habitat degradation, conversion of agricultural lands, introduction of the HYVs, urbanization, unplanned expansion of rural road networks and embankments as well as other anthropogenic factors that have caused immense damage to all habitats in ecosystem; over-exploitation of resources, i.e. unregulated fishing, illicit felling of trees, and indiscriminate harvesting of medicinal plants and Non-Timber Forest Products, hunting and trafficking of endangered species; environmental pollution: pollution of air, soil and water; water pollution exacerbated by chemical fertilizers, insecticides, industrial effluents etc and introduction of Invasive Alien Species of plants and animals.

## Land Degradation:

Land is being degraded all over the world due to huge population pressure. According to the Global Assessment of Human-Induced Soil Degradation report, a total area of 1.9 billion ha is affected by soil degradation globally, of which 850 million ha is within the Asia-Pacific Region. The identified PEIs under this thematic area in Bangladesh are: population pressure and land use change, soil salinity, river bank erosion, topsoil loss and landslide, pollution from brickfields, waterlogged soil and drainage congestion, intensive cultivation, agrochemicals, soil compaction, drought and decline of organic matter, unplanned and over-exploitation of underground water for irrigation causing depletion of ground water table; irresponsible mining of sand, gravels, coal etc. from forests and agricultural lands; conversion of agricultural lands and natural forests into other unsustainable economic uses; discharge of untreated industrial effluents; inadequate scientific and institutional capacities in land management; temperature variation and its effect on production of grains. In Bangladesh, land degradation has become a cause for serious concern to the people. About 6.0 million ha or 40.43% of the total geographical area of Bangladesh is affected by land degradation in varying degrees.

## Bangladesh Perspective of SD:

Since independence in 1971, Bangladesh has made remarkable progress toward sustainable development. The country has done well in poverty reduction (76% to 40%), food production (from 18.75 million to the present 27.80 million metric tons), sustainable GDP growth rate (average 6%), Expanded Programme of Immunization (EPI - 98%), safe drinking water (96.3%), life expectancy at birth (64.9 years in 2006), primary school enrolment (86%), reduction of population growth rate (from 3.00% to the present 1.48%), and budget of Annual Development Programme (BDT 5,103 crores in FY 1990-91 to 21,500 crores in FY 2006-07) (Source: Bangladesh Economic Review 2006). The country has also gradually climbed to the rank of 137 (out of 177 countries) in terms of Human Development Index

from 147 (out of 173 countries) during 1990 to 2006. However, the socio-economic stability of the country has not been accompanied with sustainable environmental conservation and management of its natural resources. This may be attributed to several factors including population pressure, absence of sustainable environmental governance and proper implementation of environment conservation act and rules. As a result, Bangladesh has remained an LDC with a per capita GNP below US \$ 600.00 over the last three decades.

#### GoB Initiatives towards Sustainable Development:

The Government of Bangladesh (GoB) formulated the Environmental Policy in 1992, the Bangladesh Environment Conservation Act in 1995, the Environment Conservation Rules in 1997 and the Environment Court Act in 2000. The GoB also submitted the Initial National Communication (INC) to UNFCCC in October 2002. The INC includes national circumstances, environmental mitigation issue, GHG inventory, vulnerability, adaptation to climate change and a **strategy towards** climate change response. The National Adaptation Programmes of Action (NAPA) for Bangladesh was prepared in 2005. In order to participate in Clean Development Mechanism (CDM) process, the GoB also set up a two tier Designated National Authority (DNA) on 13 October 2003. The Climate Change Cell was established in the Department of Environment in 2004.

Bangladesh, with the support of development partners, has invested over US\$10 billion to make the country less vulnerable to natural disasters. These investments include flood management schemes, coastal polders, cyclone and flood shelters, and the raising of roads and highways above flood level. In addition, Bangladesh has developed state-of-the-art warning systems for floods, cyclones and storm surges and is expanding community-based disaster preparedness. Climate resilient varieties of rice, floating vegetable gardens and other crops have also been developed to cope with the changing situation. The adaptation programme of Bangladesh could be a learning point for other vulnerable countries.

Bangladesh is endowed with rich biological diversity. Nonetheless, a complete inventory of its total biological diversity is yet to be computed. As per Article 6 of the CBD, the GoB prepared the National Biodiversity Strategy and Action Plan (NBSAP) in July 2005. A total 16 strategies have been identified in the NBSAP to conserve biodiversity in Bangladesh. In addition to that GoB has also addressed the biodiversity issues under the National Environmental Management Action Plan (NEMAP) and National Conservation Strategy (NCS).

With a view to combating land degradation and attaining sustainable land management, the Government approved Land Use Policy 2001. Consistent with Article 10 of the UNCCD, Bangladesh developed the National Action Programme (NAP) for Combating Desertification in August 2005. The overall strategy of NAP emphasized integrated and coordinated bottom-up approaches to combat land degradation and mitigate the effects of drought. It also identified the factors contributing to the process of desertification in Bangladesh and suggested measures and strategies to tackle the problem. Bangladesh submitted comprehensive National Reports for two consecutive years (2001 and 2002) and the Third National Report on 'Implementation of the UNCCD' was submitted in July 2006.

Based on obligations under different Conventions and capacity development needs, a comprehensive Capacity Development Action Plan (CDAP) for Sustainable Environmental Governance has been developed by the Ministry of Environment and Forests in 2007. The CDAP for each thematic area has been furnished with an output, one or more activities under that output, nature of capacity (individual/institutional/systemic), time frame (short/medium/long-term) and potential implementing agencies. With a view to ensuring the sustainable environmental governance, a package of 15 actions has been identified for climate change thematic area, 16 actions for biodiversity, 17 for land degradation and 11 for synergies among the RCs. Twenty-seven actions have also been identified to address the sectoral issues under the auspicious of CDAP.

The Government of Bangladesh also prepared the Climate Change Strategy and Action Plan (BCCSAP) in 2008 which is built on six pillars: (i) Food security, social protection and health to ensure that the poorest and most vulnerable in society, including women and children, are protected from climate change. (ii) Comprehensive disaster management to further strengthen the country's already proven disaster management systems to deal with increasingly frequent and severe natural calamities. (iii) Research and knowledge management to predict the likely scale and timing of climate change impacts on different sectors of the economy. (iv) Mitigation and low carbon development to evolve low carbon development options and implement these as the country's economy grows over the coming decades. (v) Capacity building and institutional strengthening to enhance the capacity of government ministries and agencies, NGOs, civil society and the private sector to meet the challenge of climate change. (vi) Infrastructure to ensure that existing assets (e.g. coastal and river embankments) are well-maintained and fit-for-purpose and that urgently needed infrastructure (e.g. cyclone shelters and urban drainage) is put in place to deal with the likely impacts of climate change.

The government is also planning to constitute a Trust Fund of US \$ 1.00 billion from its own resources to support the adaptation programme. But this fund is not sufficient to meet the increasing demand to support the BCCSAP.

#### Way Forward:

With a view to discussing the global climate issues, all the world leaders sit together in a particular place every year. This year the Conference of Parties (COP-15) to the UNFCCC was held in Copenhagen, Sweden during 7-18 December 2009. A climate change fund is going to be formed in Copenhagen for which tens of billions of dollars will be raised. As the most vulnerable country among the LDCs, Bangladesh would try to get a good share of it to implement its adaptive measures. Bangladesh is a signatory to a number of Multilateral Environmental Agreements (MEAs) including the Rio



Conventions on climate change, biological diversity and desertification. However, the country's capacities at individual, institutional and systemic levels to implement these conventions are limited. There is also a felt-need to enhance the technical capacity of the country to take part in the global negotiations and link decisions taken at the global level to the ones at the country level. A qualified permanent climate change ambassador, who will negotiate on behalf of Bangladesh, may be appointed in UNFCCC Secretariat.

Capacity development is one of the prime concerns for Bangladesh. Because Bangladesh has been deprived of accessing many grants from Global Environment Facility (GEF), Small Grant Programme, LDC fund, Climate Change Adaptation Fund etc due to its inadequate capability to prepare and implement the complex environmental projects. Saleemul Haque, a Bangladeshi climate change expert said, "The potential to access future funding regarding climate change will not be based on who has the best slogan, it will be on who can demonstrate knowledge and ability to deliver"(The Daily Star,12.12.2009).

Allmost all 28 BCS cadres are, directly and indirectly, involved in the Sustainable Environmental Governance. All national training institutes may undertake special course on sustainable development and multilateral negotiation to train our civil servants. The Bangladesh Public Administration Training Centre may take a lead to introduce a special course/module on this subject in Core Training Courses like FTC, ACAD and SSC.

One needs to depend on research-based analysis to understand the climate related problems. As per article 5 of the UNFCCC, all member countries are obligated to systematically observe and research the climate issues. A Climate Change Research Institute (CCRI) - may be established in the coastal area of Bangladesh as centre of excellence in South Asia to take the lead on systematic studies on mitigation, adaptation and technology development for meeting the future challenges of climatic change.

As per prediction of the scientific community, the poor people would be the worst suffers due to climate change. We may introduce micro insurance, vis a vis micro-credit, for our marginal farmers, fishermen, and other coastal community.

People from all sections of society should be engaged in this process. Many NGOs are trying to get involved in the adaptation programme, and many new actors are getting on board, which is good. The media has an important role on the issue and Bangladesh media has played a good role in the past. The media has to build their own capacity, acquire the knowledge and disseminate the right message to the people, policy makers and other actors.

Bangladesh is one of the pioneers in preparing many policy documents including climate change strategies and action plans. Now the government may translate those into actions. The sooner we start implementing the action plans the better. But we need to increase our ability to utilize funds effectively. The government may also make all development plans, projects and programmes keeping in mind climate-change vulnerability.

Implementation monitoring is one of the significant aspects of a plan, policy and programme under any development initiatives. In the past, in absence of such monitoring, the people and the nation have been deprived of the sustained outcomes of such good initiatives. With a view to ensuring the SD, a "Sustainable Development Monitoring Council (SDMC)" may be formed consisting of the representatives from ministries, divisions, departments, agencies concerned, research organizations, leading training institutes, NGOs, civil society and private sectors. While the size of the SDMC would be large and it will not be possible for it to meet every month, there might be a small professional/expert body to provide technical advice to the SDMC. So there may be a small body in the name of "Sustainable Development Board (SDB)". There should be committees at the division, district and upazila levels to ensure sustainable environmental governance at local levels.

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