



## **Sectoral Integration of Biodiversity in Bangladesh**

### **Contents**

1. Introduction .....	3
2 Status of Mainstreaming NBSAP .....	3
Mainstreaming at Institutional Level .....	3
Mainstreaming NBSAP at Individual Levels .....	5
Mainstreaming NBSAP in the Policy Frameworks.....	5
2.1 Environment Policy 1992 .....	6
2.2 Forest Policy 1994 .....	6
2.3 National Land Use Policy 2001.....	6
2.4 National Fisheries Policy 1998 .....	6
2.5 National Water Policy 1999 .....	7
2.6 Coastal Zone Policy 2005 .....	7
2.7 Livestock Development Policy 1992 .....	7
2.8 National Seed Policies .....	7
3. Challenges for Inter-sectoral Integration.....	7
4. Assessing the Cross-cutting issues Among climate Change action Plans and NBSAP.....	8
5 PRSP and NBSAP: Complementariness and Conflicts .....	9
6 Accelerating the Pace of Mainstreaming of Biodiversity .....	9



## **1. Introduction**

Bangladesh reported<sup>1</sup> that National Biodiversity Strategy and Action Plan (NBSAP) of Bangladesh build upon five pillars, such as (i) Species conservation, (ii) Ecosystem management, (iii) Legal, regulatory and policy issues, (iv) Education, training and awareness raising, and (v) Linkages and institutional issues. It was assumed that working on these issues will finally lead to ensure better protection of biological resources of the country. Mainstreaming of NBSAP requires concerted efforts and actions to achieve the common goal of biodiversity conservation. This can be achieved once the aims and spirit of the NBSAP are mainstreamed in the following areas:

- Mainstreaming NBSAP into institutional level
- Mainstreaming at individual level
- Mainstreaming in policy and legislative framework.

In this backdrop, this note focuses on how far the NBSAP objectives have been mainstreamed at institutional or individual levels and assessed the legislative framework in this regard as well. The challenges that need to be overcome for effective integration of NBSAP into cross-sectoral policies, plans and work programmes are also highlighted in this chapter.

## **2 Status of Mainstreaming NBSAP**

### **Mainstreaming at Institutional Level**

Mixed impression (i.e. both positive and negative) exists in the country in mainstreaming NBSAP objectives at the institutional level of the country. Ministry of Environment and Forest (MoEF) gives emphasis on better management of environmental and ecological resources. Department of Environment under MoEF is the leading organization in the country in formulating environment related policies and regulations. National Technical Committee on Biodiversity (NTCB), an apex body, headed by Secretary of the Ministry of Environment and Forests has already been operational to oversee the overall activities of biodiversity. Some of the activities like (i) Completed projects under Sustainable Environmental Management Programme (SEMP), (ii) On-going Coastal and Wetland Biodiversity Management Project (CWBMP) at Cox's Bazar and Hakaluki Haor in greater Sylhet district, (iii) Completed Nishorgo Support Programs and on-going Integrated Protected Area Co-management (IPAC) are noteworthy initiatives towards biodiversity conservation on various ecosystems of the country.

In addition, agencies like Local Government Engineering Department (LGED), Roads and Highways Department (RHD) and Bangladesh Water development Board (BWDB) have established environment

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<sup>1</sup> Bangladesh (2010). Fourth National Report (Biodiversity National Assessment and Programme of Action 2020), Department of Environment, Ministry of Environment and Forests, January 2010, 112 pp.

cell to assess the impacts of the projects being implemented by these organizations. In this respect, it could be mentioned that Environment Conservation Act 1995 made it mandatory to conduct Environmental Impact assessment (EIA) before implementing physical infrastructures those have potentially higher impacts on the environment. Agencies undertake EIA for their projects under this direction. The EIA of the mega project of Bangladesh, the Ganges Bridge (locally known as Padma Bridge) is currently underway that is being conducted by the Bridge Authority of the Ministry of Communication, could be an example in this regard.

On the other hand, cynical impressions also exist in implementing NBSAP at institutional level activities. It is observed that some actions in the same agency are contradictory in consideration of biodiversity conservation. For instance, Forest Department (FD) has plantation programs, which are not always supportive to ecosystem approach being fostered by the Convention on Biological Diversity. Social Forestry being undertaken by the Forest Department is looking after commercial aspects of afforestation, rather than conserving indigenous knowledge and biodiversity. In many instances, agencies are more focused in achieving their own sectoral objectives, which sometimes go against biodiversity conservation. For example, Ministry of Agriculture is aiming at increased food grain production by introducing high yielding variety (HYV) crops at the cost of local rice varieties. This sort of farming also degrades environment and biodiversity thereof due to unscrupulous use of water resources, chemical fertilizers and insecticides.

Fisheries Department also wants to see fish production in terms of as many tons as possible with less focus on fish biodiversity conservation. Promotion of shrimp cultivation in coastal areas made adverse impacts on coastal ecosystems and species diversity. Water resources ministry aims at extending geographical coverage of FCD/I (Flood Control Drainage and Irrigation) schemes that caused threats to floodplain biodiversity.

The barriers of mainstreaming NBSAP at institutional levels can be summarized as follows,

- Legal and Institutional Framework not supportive to biodiversity conservation
- Policies and programmes and development projects are not optimally coordinated at the national level.
- Institutional and individual capacities are still lagging behind.
- Funding is irregular and unpredictable, which thwarts the timely implementation of planned programmes.
- Negligible efforts to enhance the policy level understanding on the importance of biodiversity conservation.

### **Mainstreaming NBSAP at Individual Levels**

In broad observation, the activities of individuals aiming at biodiversity conservation are generally sporadic and discordant. The researchers and professionals are working on different components of environment and ecosystems without having explicit aims to translate the research results in achieving the objectives of NBSAP the Convention on Biological Diversity (CBD). Although it is true that many research works are closely connected with different components of NBSAP. The individuals working on biodiversity and ecosystems may fall into three categories, e.g. (i) those who are based in academic institutions (e.g. universities), (ii) individuals based in government research agencies (e.g. Bangladesh Agricultural Research Council, Bangladesh Rice Research Institute, Bangladesh Agricultural Research Institute, Bangladesh Fisheries Research Institute, Bangladesh Livestock Research Institute etc. ), (iii) people based in non-governmental organizations (e.g. BRAC). The results of these activities are published in peer reviewed journals and books but cataloging and archival systems of these works are still poor, which made it difficult to transmute the research results in formulating efficient legislative tools and programmes for better protection of biodiversity.

On the other hand, individuals, specially living in the rural communities are motivated to act in the favor of biodiversity conservation and its promotion. For example, biodiversity conservation in the rural homesteads, groves and agro-ecosystems are specially managed by the community individuals and in most of the cases, women members of the households play the most active roles in this regard.

### **Mainstreaming NBSAP in the Policy Frameworks**

NBSAP advocated that legal, regulatory and policy regimes should be attuned in line with biodiversity conservation. In this regard, it can be claimed that the strategic arrangements and legislative frameworks of the country are strong enough to safeguard habitats, ecosystems and their associated biodiversity. The environment and biodiversity related policies such as Bangladesh Environment Policy 1992, The Forest Policy 1994, The Water Policy 1999, National Landuse Policy 2001, National Fisheries Policy 1998, National Environment Management Action Plan (NEMAP) 1995 hold strong elements of biodiversity conservation.

The level of mainstreaming of NBSAP into individual policies and strategies so far achieved in Bangladesh may be said satisfactory, but the integration and harmonization among the policies to achieve the common goal in respect to biodiversity conservation is still a big gap to be filled-in. There are some of the policies, e.g. Export Policy 2006, Industrial Policy 2005) which did not explain how objectives of those policies (export promotion or industrial expansion for example) will be achieved without compromising environmental degradation or biodiversity conservation. These kinds of inter-sectoral conflicts still remain as a challenge towards mainstreaming biodiversity in the country. With this backdrop, some policies relevant to biodiversity are examined in the following sections to illustrate how environment or biodiversity concerns are accommodated in their objectives and approaches.

## **2.1 Environment Policy 1992**

The Environment Policy 1992 built upon the spirit of Rio Conference and acknowledged that sustained development of the country is based on the well-being of the environment and ecosystems since it provides the services necessary for ensuring progress. Section 3 of the Policy focused on the biodiversity conservation. It envisioned biodiversity protection through achieving the following targets.

- Forest conservation, extension and further development was recommend for maintaining environmental balance and to fulfill the socio-economic need of the community.
- Inclusion of tree plantation in all development activities.
- Reduction of erosion in forestlands and forest resources.
- Innovation of alternative materials to wood so that pressure on wood resources is reduced.
- Wildlife and biodiversity conservation and support research activities in related fields.
- Wetland conservation and development and protection of the habitat for migratory birds.

## **2.2 Forest Policy 1994**

The Forest Policy 1994 recognizes the importance biodiversity for environmental sustenance. The aim 3 and 8 of the policy explicitly mentioned that habitats for the wildlife and vegetation will be conserved through afforestation and by bringing forest lands under Protected Areas. It is imperative to mention here that the current Forest Policy 1994 targets to bring 20% of the total land area of the country under forest cover, and at least 10% of which under Protected Areas by 2015. It also declared that measures will be taken to improve the degraded forests so that richness of the biodiversity could be maintained. The Policy insists on harvesting and using forest products without disturbing the state of biodiversity. The Policy, at the same time, advocated for social forestry, which includes agroforestry, woodlot plantation, strip plantation in vacant public and private lands of the country.

The social forestry approach is, in many ways, contradictory to biodiversity conservation; the policy, in this regard, did not clarify how to attain mutual interests (i.e. promoting social forestry and at the same time biodiversity conservation) simultaneously.

## **2.3 National Land Use Policy 2001**

Land utilization policy have little direct focus on biodiversity conservation, but have components like reduce illegal landuse conversion, ensure facilities so that landuse activities is attuned with environmental conservation; these holds indirect linkage to biodiversity conservation. The policy advocated tree plantation in the riverine and coastal islands to increase forest cover in the country.

## **2.4 National Fisheries Policy 1998**

Although fisheries policy of the country aims at enhancing production of fish resources from inland and marine sources and to increase the export oriented foreign currency earning, it at the same time focus

on environmental balance and biodiversity conservation (mentioned in objective 5 of the policy). The policy identified different threats to fisheries resources, such as population pressure, (ii) construction of infrastructure in the floodplains, (iii) pollution by chemical fertilizers, insecticides and pesticides; and urged for reducing these threats as to improve the situation.

### **2.5 National Water Policy 1999**

National water policy mentions that this policy is a bold step for governance in the water sector. It explicitly mentions that it will play an important role in biodiversity conservation and ensuring a sound environment in the country. Sections 4.9, 4.12 and 4.13 clearly focus on importance of water on fisheries and wildlife, water for the environment and preservation of wetlands respectively.

### **2.6 Coastal Zone Policy 2005**

The coastal zone policy recognizes the importance of ecosystems and biodiversity conservation needs as it mentioned, “the coast contains several ecosystems that have important conservation values. Part of the Sundarbans, the world's largest stretch of mangrove ecosystem, has been declared a World Heritage Site, whereas coral ecosystems are found around St Martin's Island. The coastal zone has not only biodiversity hot spots, but also provides the ecological foundation for an important common property resource; A large portion of these resources are various types of fisheries resources available in the Bay of Bengal”.

### **2.7 Livestock Development Policy 1992**

Livestock development policy of Bangladesh puts major emphasis to enhance livestock and poultry (meat and egg) production in order to ensure a sustained supply of animal protein for the people of the country. However, some of the objectives have relevance to biodiversity conservation. For instance, Its target to produce biogas production may contribute in reducing pressure (e.g. fuel wood collection by the rural community) on forest resources.

### **2.8 National Seed Policies**

National Seed Policy 1993, The Seeds (Amendment) Act 1997, The Seed Rules 1998 are mainly aiming at achieving self sufficiency in food production. Thus the instruments got provisions for liberalizing of import of seed and seed processing machineries, strengthening of quality control and research system and maintaining a seed security arrangement. These instruments have little attention on conservation of indigenous or local crop diversity and to protect local ecosystems and habitats from invasion of IAS.

## **3. Challenges for Inter-sectoral Integration**

Major challenges for inter-sectoral integration are as follows:

- Human resources with appropriate background and knowledge/skills are not always posted in right positions, where their expertise is deemed necessary so that they can support the agency with proper decisions leading to inter-sectoral integration.

- Policies related to forest, wetland management are still rooted in colonial systems. For instance, the forest definition exercised by Bangladesh Forest Department and its reflection in estimating forest area coverage and the leasing out approach of wetland management being exercised by district administration is contradictory to biodiversity conservation and may hamper inter-sectoral integration. However, some innovative management system has already been introduced to overcome these kinds of hurdles in Bangladesh. For instance, piloting the community fisheries management approach in public wetlands has been found successful, which is expected to be implemented in other areas of the country as well. Co-management of forest ecosystem is also going to be introduced in some pilot area under IPAC project.

- Lack of human capital and financial resources sometimes turn to be barriers to take necessary steps so that inter-sectoral actions can be put forward. Institutional up-gradations and capacity building issues are the underlying aspects on which need assessment for integration, development of tools/instruments, mechanisms and protocols for sectoral integration depends. All these issues are dependent on financial resources, which is always a constraint for the agencies of Bangladesh.

#### **4. Assessing the Cross-cutting issues Among climate Change action Plans and NBSAP**

Among the challenges, NBSAP considers climate change as one of the major risks to uphold its targets and to implement action plans. Climate change induced threats like temperature increase, erratic behavior of rainfall, excessive rainfalls, occurrence of cyclone, saline intrusion in the coastal areas, incidence of drought is a major cause for destruction of habitats of species and at the same time undermine production and the thriving nature of agricultural biodiversity, which might bring instability in food security of the people of Bangladesh.

In this context, National Adaptation Plan of Action (NAPA) and Bangladesh Climate Change Strategy and Action Plan (BCCSAP), developed by the Government of Bangladesh, identified areas where specific programmes could be implemented in order to reduce the climate change threats to biodiversity. The NAPA lists a number of programmes based on some criteria, among which some are attuned with CBD principles.

For example, NAPA recommended promotion of coastal afforestation through community participation to reduce the threats of climate change under its intervention type measures. In addition, some of the propositions (proposed by NAPA and BCCSAP) include development of plant/crop varieties, which are tolerant to changing climatic conditions, some focused on institutional capacity building issues so that institutions become skilled and ready to act to reduce the climate change induced threats. The proposed plans (i.e. both NBSAP and BCCSAP) have common and coinciding areas. Table 3.1 shows how the elements of NBSAP coincide with different themes of BCCSAP. Sometimes, it is difficult to find explicit correlation among the elements of these two plans, although in many respects they have indirect impacts on others.

## **5 PRSP and NBSAP: Complementariness and Conflicts**

It is important to understand the linkages between the NBSAP and Poverty Reduction Strategy Paper (PRSP). Both the Poverty Strategy Papers, i.e. PRSP I (2007-2008) and the NSAPR (2009-2011) take into account aspects of environmental health, energy, agriculture, natural resources, climate change and disaster management. Especially the NSAPR explicitly asserted to protect and tackle climate change to ensure sustainable development. The strategy papers also address forestry and fisheries issues. NSAPR proposed to reverse the downward spiral of poverty and environmental degradation considering the fact that the underlying causes of biodiversity loss are linked to the causes of poverty.

However, improving ecosystem health and at the same time reducing poverty requires pooling of local knowledge and experiences and mainstreaming the biodiversity concerns into all sectoral development strategies.

## **6 Accelerating the Pace of Mainstreaming of Biodiversity**

Importance of Biodiversity as a term should be well understood by the policy level to grass-root level conservation and management peoples. Government of Bangladesh should revisit all the relevant policies and action plans to take the three pillars of CBD into consideration. There should be concerted efforts, awareness campaign and advocacy for biodiversity conservation. The capacity building at the individual, institutional and systemic or policy level to handle the complex issues of biodiversity conservation will help a lot for furthering the process of mainstreaming.