

Chapter 3

Environmental Strategy

Over the past six years in Bangladesh, pressure from multilateral banks and bilateral aid agencies to undertake a range of environmental and resource plans has resulted in a series of environmental strategy documents and other reports. They include a National Environmental Management Plan and several natural resource status reports.

3.1 Scope and Objectives

In the late 1980s, the National Conservation Strategy (NCS) was expected to identify obstacles to conservation and sustainable development and prescribe actions to overcome them in an integrated, cost-effective manner. The terms of reference called for the establishment of links between conservation and national development goals.

Undertaken in two phases, the strategy aimed to incorporate environmental considerations into the development planning process. It proposed to do this by developing a framework to address natural resource conflicts occurring in the course of socioeconomic development. The duties

and responsibilities of all relevant ministries were to be clearly spelled out. The major objective of the NCS was to provide guidelines for development practitioners on means to preserve or improve the environment while pursuing the goal of sustainable development. The strategy covered the following sectors: agriculture, conservation of genetic resources, cultural heritage, energy and minerals, environmental education and awareness, environmental pollution, fisheries, forestry and forest conservation, health and sanitation, human settlement and urban development, industry, land management, livestock, natural hazards, population, rural development and NGO activities, transportation, water resources and flood control, and wildlife management and protected areas.

Two initiatives contributed to the decision to undertake the NCS: the 1980 World Conservation Strategy and a 1984 request from NORAD to IUCN to undertake a state of the environment report for Bangladesh. In the appraisal mission for this report, recommendations for a National Conservation Strategy were made to the Department

of Environmental Pollution Control (DEPC). Unfortunately the DEPC had a limited mandate within the government, and initially the government did not endorse the recommendation. However, with the assistance of IUCN, interest in the NCS was revived within the government and the development assistance community. This was done mainly by emphasising the magnitude of conservation and development problems in Bangladesh and the need for strategic planning to address them. Environment and development issues were also receiving a great deal of attention from donors and the government at that time.

The NCS was prepared in two phases. Phase I produced a prospectus with an overview of environmental issues and the status of natural resource use and degradation; and it also spelled out the organization and methodology for Phase II, including a work plan. The prospectus identified 20 areas, including major economic development sectors and likely environmental issues in each area.

The Ministry of Agriculture and Forests had overall responsibility for the NCS until the creation of the Ministry of Environment and Forests in 1989. Before January 1988, when Phase II began, the Ministry of Agriculture and Forests set up a task force of 22 secretary-level members of relevant ministries. Chaired by the Minister for Agriculture and Forests, the task force was to oversee strategy preparation and provide overall guidance. However, the task force never met. As part of the consensus-building process, seven sectorial workshops were held to present sectoral write-ups prepared by the NCS secretariat. These sectors were land resources, genetic diversity, forestry, wildlife, agriculture, energy and minerals, and fisheries and water resources. Experts, senior government officials representing key institutions, and academics in related fields attended these workshops.

There was little substantive participation in NCS preparation by government agencies, NGOs, or semi-governmental institutions and almost no participation from the private sector. Opportunities for consultation were limited to the workshops. The NCS document is largely the product of a group of academics and government officials. Dialogue on the issues among policy-makers, decision-makers, resource-users, and the public was weak. A wide participation programme could have developed a better profile and level of awareness and given the NCS the momentum and support needed for its adoption and implementation. As it stands, the NCS has been marginalised by other initiatives and has fallen into obscurity. The failure of the task force to function left a void in the stewardship of strategy preparation. Without the backing of key government officials, many government institutions were either slow or not interested in participating in NCS preparation (Earth Scan 1997).

3.2 National Environmental Strategies and Action Plan

After the emergence of Bangladesh as a sovereign country in 1971, the first enactment dealing with an environmental subject was the Water Pollution Control (Amendment) Act 1973. The first major piece of legislation on the subject, however, was the Environmental Pollution Control Ordinance 1977 which created an Environmental Pollution Control Board. This Board was assisted by a Pollution Control Cell, which grew into the Department of Environment Pollution Control, and subsequently to the Department of Environment.

In 1989, a decision was taken to create a Ministry of Environment and Forests. The ministry is responsible for environmental matters at the national level and works with ministerial agencies to ensure that environmental concerns are taken into account in

the formulation and execution of development policies. Besides the departments of Forests and Environment, the Ministry oversees the activities of Bangladesh Forest Industries Development Corporation (BFIDC), the Forest Research Institute (FRI), the Institute of Forestry and Environmental Sciences (at Chittagong University), and the National Herbarium.

3.2.1 National Environmental Policy 1992

The National Environmental Policy was officially announced in 1992 with the following objectives.

- Sustainance of the ecological balance and overall progress of the country through protection and improvement of the environment
- Protection of the country against natural disasters
- Identification and control of activities that pollute and degrade the environment
- Ensuring environmentally sound development in all sectors
- Ensuring sustainable, long-term and environmentally sound utilisation of all resources
- Active association with environment-related international initiatives to the extent possible

The National Environment Policy embodies environmental policies for 15 sectors: agriculture; industry; health and sanitation; energy and fuel; water development, flood control, and irrigation; land; forests, wildlife, and biodiversity; fisheries and livestock; food; coastal and marine environment; transport and communication; housing and urbanisation; population; education and public awareness; and science, technology, and research.

Environmental policies on forest, wildlife, and biodiversity have the following objectives.

- Conserve, expand, and develop forests to sustain the ecological balance and meet socioeconomic needs and realities
- Include tree plantation programmes in all relevant development schemes
- Stop shrinkage and depletion of forest land and forest resources
- Conserve wildlife and biodiversity, strengthen related research, and help dissemination and exchange of knowledge in specific areas
- Conserve and develop wetlands and protect migratory birds

Environmental policies on land have the following objectives.

- Formulate a balanced and environmentally sound national land-use policy and plan
- Prevent land erosion, preserve and increase soil fertility, and expand activities for conservation and environmentally sound management of newly accreted land
- Encourage land-use systems compatible with various ecosystems
- Prevent the spread of salinity and alkalinity of land

3.3 National Environmental Management Action Plan

The National Environmental Management Action Plan (NEMAP) is a plan of the Government of Bangladesh prepared by the Ministry of Environment and Forests. NEMAP is considered the basis for consolidating programmes and interventions aimed at promoting better management of scarce resources and reversing present trends of environmental degradation. NEMAP is intended to build on the general principles set out in the National Environmental Policy by proposing concrete actions and interventions in a number of priority areas. The current plan is applicable for the period from 1995-2005. The first

phase of the NEMAP was carried out in 1992 by national consultants who identified certain areas of concern. The second phase was carried out in 1993 by national and international consultants who prepared a list of projects. The order of priorities was arrived at after discussion with government officials. The third phase was carried out in 1994 through a series of discussions and workshops in which people from all walks of life participated.

The NEMAP has been developed with assistance from UNDP. Other organizations and their members involved include the Association of Development Agencies in Bangladesh and their various local-member NGOs, the Coalition of Environmental NGOs and their members, the Department of the Environment, and the Bangladesh Centre for Advanced Studies. The consultative process was developed through an intensive dialogue between all partners to allow maximum coverage of the country and input from as many sectors as possible. There were 23 grass roots' level workshops covering all the main agro-ecological zones. Participants included women, farmers, fishermen, officials, educationists, NGO workers, businessmen, elected representatives, and others. Six one-day regional workshops were held. A national workshop was held in June 1994 to consolidate the findings and recommendations of all the workshops. Finally, the NEMAP was published by NEMAP Secretariat, Ministry of Environment and Forests (NEMAP 1995).

NEMAP is the basis for promoting better resource management, making people aware of environmental problems, and reversing the present trend towards environmental degradation. It is expected to identify key environmental problems. Since these may change over a period of time, NEMAP will have to evolve in response to change. The action plan is meant to be implemented not only by the government

but also by NGOs and individual citizens and communities. The management interventions are all essential but the more urgent ones have been given greater importance.

3.3.1 Main Environmental Issues

For the purpose of management, implementation, acquiring necessary funds, and enabling all agencies to initiate or implement their own programmes singly or in combination with other agencies, the NEMAP has identified the following as main environmental issues.

- Institutional issues: intersectoral coordination, ensuring people's participation, monitoring of NEMAP, legislation, and methodology of people's participation
- Sectoral issues: health and sanitation, forest, biodiversity, natural hazards, education and awareness, industry, water, agriculture, energy, fisheries, land, housing, and transport
- Local issues: salinity and shrimps, coastal marine, Barind Tract, wetlands, hill cutting, and Madhupur Tract
- Long-term issues: regional water-sharing, urbanisation, climate change, and research and development

The main environmental issues on land resources and forestry and biodiversity are highlighted here.

3.3.2 Land Resources

Virtually, all available land is utilised for agriculture, forestry, fishing, settlements, and urban development. It is felt that land-use priorities have to strike a balance between the needs of these competing sectors. Major land-use conflict arises from uncoordinated action amongst the ministries and agencies concerned with land management. Yet, little attention has been paid to formulating a national land-use

policy to conserve and make optimum use of this natural resource.

Gradual loss of agricultural land, loss of soil fertility, soil degradation, landlessness, distribution of *kha(s)* land, and a cumbersome land registration system are important issues that have been addressed by the NEMAP. A number of specific actions has been proposed (Table 3.1).

3.3.3 Forestry and Biodiversity

Forests are in decline in Bangladesh and have reached an all-time low in recent years. About half of the forest land has lost tree cover. In the past, forest management concentrated on industrial wood production with little regard for watershed protection, preservation of genetic diversity, wildlife preservation and manage-

ment, and the needs of local people. As a result, forest losses remain unchecked. Although South Asia had an annual deforestation rate of 0.6 per cent for the period from 1981-1990, Bangladesh reached 3.3 per cent annually. This latter rate excludes forest fallow and new plantations of about 37,000 ha annually. Projected losses are three per cent to the year 2000 (FMP 1993). Deforestation results from clearing land for agriculture, principally *jhumming* (shifting cultivation). About 60,000 families engaged in *jhumming* are involved in an area of about 85,000 ha of hill forests (FMP 1993), excluding CHTs where about one million people *jhum* in an area of 1.32 million ha (Khisa 1995).

In the past, felling rates exceeded the forests' ability to regenerate in sufficient qual-

Table 3.1: Key Issues and Specific Actions Suggested in NEMAP for Land Resources

Key issues	Recommended Actions	Type of Action	Actors/ Agencies	Specific Actions
Unsustainable land use	Development of sustainable land-use management	Policy	MoLand, agricultural research organizations, universities, community organizations/ NGOs	Action research/farm research
	Study of indigenous sustainable land-use practices	Project	Research organizations, community organizations/ NGOs, people	Study to increase efficiency of the production system and its application
Loss of soil fertility	Soil fertility status survey and classification of soil according to fertility; appropriate care for soil nutrient deficiencies	Project	SRDI, research organizations, universities	Survey projects on soil fertility conservation and mapping
Management of degraded land	Inventory of degraded land, its mapping and recommendation for appropriate use	Project	SRDI, SPARSSO, research organizations	Survey and mapping

Table 3.1: Key Issues and Specific Actions Suggested in NEMAP for Land Resources (cont'd)

Key issues	Recommended Actions	Type of Action	Actors/ Agencies	Specific Actions
Status of land resource: inventory, classification and legal status	National land-use survey in collaboration with research institutions and private sector	Project	Directorate, DLR, research organizations, private sector	Land-use survey, land classification on the basis of physical uses and legal status, and formulation of recommendations for subsequent replication
Age-old land registration and records of land rights' system	Modernisation of land registration and land rights' recording system with computer assistance such as GIS	Policy/ Project	DLR, MoLand, research organizations	Pilot study and formulation of recommendations for subsequent replication
Absence of land policy providing provision for land-use planning and addressing the policy, and land reform/ land fragmentation/ land tenure/ landlessness/ land settlement such as distribution of <i>khas</i> lands	Formulation of comprehensive land policy	Policy	MoLand	Formulation of land-use plan; land reforms incorporating agrarian and tenure structure; programmes for giving <i>khas</i> lands for settlements to the poor and encouraging environmentally sound and sustainable land-use patterns
Soil conservation issues	Soil conservation measures in areas with high soil erosion	Project	DoF, CHTDB, community organizations/NG Os, people	Pilot project to develop appropriate agroforestry practices, plantation and land-use practices for the conservation of soil with active participation of local people

Source: NEMAP 1995

Notes: CHTDB: Chittagong Hill Tracts' Development Board; DLR: Directorate of Land Records; DoF: Department of Fisheries; MoLand: Ministry of Land; SRDI: Soil Resource Development Institute; SPARRSO: Space Research and Remote Sensing Organization

ity and quantity. Removal of remaining natural forests and replacement with low-yielding plantations are not effective as a mecha-

nism to sustain resources. Existing methods of clear felling (followed by burning), have caused soil erosion, productivity loss, and

substantially reduced biodiversity. Plantations with monocultures of exotic species on a large scale do not maintain biodiversity. Monocultures, although created for economic reasons in Bangladesh, are susceptible to disease. In some cases, the species planted are inappropriate to sites and intended uses (FMP 1993).

Key issues associated with forests, wildlife, and biodiversity include encroachment of forest land for agriculture and human settlement, depletion of forest resources, and

replacement of natural forests by commercial plantations. Management of wetland within forests is still poor, and these should be rehabilitated to develop an ecologically viable and socioeconomically acceptable system. These issues have been addressed by the NEMAP and a number of specific actions has been proposed (Table 3.2).

Legal Enactment

The Department of Environment under the Ministry of Environment and Forests is le-

Table 3.2: Key Issues and Specific Actions Suggested in the NEMAP for Forestry and Biodiversity

Key issues	Recommended Actions	Type of Action	Actors/Agencies	Specific Actions
National forest policy	Formulation of a new national forest policy suited to the present and future social, economic, political, and environmental needs of the country together with adequate and appropriate legislation for implementing the policy	Policy/Advocacy/Project	MoEF, in collaboration with MoL, MoE, MoLaw, MoLGRD, MoLF, MoE, MoA, MoI, MoP, MoTourism, MoIWDFC, Cabinet Division, FD, people's representatives, community organizations/NGOs, people	<p>Reviewing and studying existing forest policy, laws, rules and regulations, related sectoral study reports, Forestry Master Plan, National Conservation Strategy, National Environmental Policy 1992, NEMAP and preparation of national policy with people's participation.</p> <p>Consultation with local people living in and around forests, private forest owners, homestead tree garden owners, local landless people, destitute women, marginal farmers, unemployed and underemployed people; taking their opinions</p>

Table 3.2: Key Issues and Specific Actions Suggested in the NEMAP for Forestry and Biodiversity (cont'd)

Key issues	Recommended Actions	Type of Action	Actors/Agencies	Specific Actions
Institutional reforms for forestry	Separation of authority and enterprise functions in government organizations; providing fully fledged (functional and financial) autonomy to the enterprise system; enterprises formed should promote private sector, cooperative sector, and organized people's participation	Policy/Advocacy	MoEF in collaboration with MoEstablishment, MoFinance, MoLGRD, MoP, Cabinet Division, FD, people's representatives, journalists and community organizations/NGOs, people	and views for formulating the new National Forest Policy Reviewing and studying the Forestry Master Plan, consultation with all relevant actors, and preparing a Project Concept Paper
Depletion of forest resources	Giving highest priorities to forest conservation, augmentation of forest resources tree resources development in rural areas, and increasing forest and tree cover in the country.	Policy/Advocacy	MoEF, FD, community organizations/NGOs	Adopting and implementing an adequate and appropriate national forest policy through people's participation and participatory enforcement through targetted groups. Improved management of state forests and plantations, maintaining sustainability, productivity, environmental soundness, equity based on properly prepared forest management plans and

Table 3.2: Key Issues and Specific Actions Suggested in the NEMAP for Forestry and Biodiversity (cont'd)

Key issues	Recommended Actions	Type of Action	Actors/Agencies	Specific Actions
				implementing the same through people's participation. Improved management of homestead forests and providing support for developing private nurseries. Updating forest and tree resources' inventory information, forest and tree cover maps, and maintaining them on the Resource Information Management System (RIMS)
	Awareness development	Advocacy/ Policy	MoEF, FD, television, radio, newspaper, video film, community organizations/ NGOs, people	Media campaign; extension; television and radio programmes; short films, exhibitions, seminars, and symposia, newspaper articles; essay competition at educational institutions
Conservation of wildlife	Giving priority to the protection of wildlife, birds, frogs, lizards, and snakes.	Policy/ Advocacy/ Project	MoEF, FD, DoF, law enforcing agencies, community organizations/ NGOs, wildlife and nature conservation societies, people	Inventory to assess the present status of wildlife; birds, frogs, lizards, snakes; and evaluate their types and quantities available Prohibition of hunting and trapping of wildlife and their hides; hunting,

Table 3.2: Key Issues and Specific Actions Suggested in the NEMAP for Forestry and Biodiversity (cont'd)

Key issues	Recommended Actions	Type of Action	Actors/Agencies	Specific Actions
Conservation of biodiversity	Biodiversity protection	Policy/Project/Advocacy	MoEF, MoLF, FD, BFRI, people's representatives, conservation organizations, wildlife and conservation societies, community organizations/NGOs, people	trapping and disturbances of migratory birds and aquatic birds; large-scale commercial exploitation of selected frog, lizard and snake species through appropriate legislation Conservation of germplasm in seed stores, clonal orchards, botanical gardens and zoos Awareness development through media, television, radio, newspapers, seminars, symposium
	International collaboration to conserve biodiversity.	Policy/Advocacy	MoEf, MoP, FD, other related institutions and ministries	Development of a biodiversity commission with neighbouring countries for developing strategies to conserve shared resources and promote genetic interchange

Source: NEMAP 1995

Notes: BFRI: Bangladesh Forest Research Institute; FD: Forest Division; MoA: Ministry of Agriculture; MoE: Ministry of Energy; DoE: Department of Environment; MoEF: Ministry of Environment and Forests; MoFinance: Ministry of Finance; MoI: Ministry of Industry; MoIWDFC: Ministry of Irrigation, Water Development and Flood Control; MoL: Ministry of Lands; MoLaw: Ministry of Law; MOLGRD: Ministry of Local Government and Rural Development; MoLF: Ministry of Livestock and Fisheries; MoP: Ministry of Planning; MoTourism: Ministry of Tourism; NGOs: non-government organizations.

gally mandated to formulate environmental policies for all development sectors in Bangladesh and promote environmentally friendly activities in the development process. The government has approved the NEMAP proposed by the Department of

the Environment under the purview of the National Environmental Policy 1992. The current NEMAP is a well-discussed plan. There is a declaration that environmental impact assessment should be carried out for all major development projects. The

government promulgated the Bangladesh Environmental Protection Act 1995 and the Environmental Protection Regulation 1997 in the light of the National Environmental Policy 1992.

Concerns and Criticisms

Grass roots' level workshops, professional and other interest-group workshops, and questionnaire surveys trying to capture people's perceptions have demonstrated adequately that people at the grass roots' level are quite aware of the problems. Many people, both male and female, from a wide geographical range have reported environmental concerns related to the forestry sector. Most of these concerns are about the rapid depletion of forest resources, both natural and village forests.

Understandably the NEMAP process has been subject to criticisms; some of them justified. These have come from many sources—including grass roots' participants, academics, government officials, NGOs, journalists, and others. The NEMAP steering group considers such criticism not only healthy but an integral part of the NEMAP process to allow for learning from mistakes and making corrections. A number of criticisms were raised in a paper by Zahir Sadeque. He gave a reasonably accurate description of the genesis of the NEMAP over the last few years and how the present participatory process came about. He then made a number of observations and critiques of the current phase. These are summarised in the following passage.

“The consultative process was ‘less than optimally participatory’. The summary of the NEMAP circulated was overly simplistic, covering only 15 environmental problems. The problems identified were ‘instead of being regional or location specific, rather national and generic in nature’. The final document is concerned with ‘developing a grandiose project list’. There is no

prioritisation in the plan. The composition of the team of consultants engaged for writing the plan was ‘overly water-expertise inclined’ and neglected other disciplines such as botany, agriculture, fisheries, wildlife, industrial and urban planning, social services, economics, and planning. The documentation process ‘lacked intellectual leadership aimed at synthesising the country's needs, priorities, and planning goals’. The plan is ‘still too consultant-driven’. The MoEF ‘should have been more proactive in providing the guidelines and philosophy upon which the plan should have been built’. Many of these criticisms are valid and, deserve to be given careful consideration.”

3.4 Impact of the Environmental Policy

Many sectoral agencies have started to follow the environmental policy directives for preparing and executing development plans or projects. For example, the Forestry Sector Master Plan is largely an environmental plan to reverse the destructive trend of deforestation. The current five-year Action Plan of the Forest Department contains five programmes designed especially for direct and visual public benefit (FAP 1993). These programmes involve environmental management, participatory forestry, non-wood forest products, wood-energy conservation, and bamboo development. Every citizen of Bangladesh benefits from an improved environment. Participatory benefit programmes are the basis for assisting the government's poverty alleviation efforts. Energy conservation lowers the demand for fuelwood or animal dung and reduces pressure on forests and improves agricultural production. The bamboo development programmes help offset effects of forecast reductions in bamboo, a major domestic construction material for the rural population.

Many NGOs are also involved in promoting tree-planting activities to prevent de-

forestation. The Directory of Environmental NGOs in Bangladesh, compiled by the Association of Development Agencies, lists 369 NGOs that are involved in forestry extension programmes directly or indirectly related to environmental conservation (Mahtab 1992). NGOs have exhibited notable success in afforestation on homesteads, embankments, school grounds and other similar places, and on encroached forest land. In the afforestation programmes, NGOs have provided seedlings of fruit and fuelwood trees to beneficiaries, either through purchasing such inputs from the government or through nurseries raised by the beneficiaries themselves. NGOs now execute their programmes following the directives of the current National Environment Policy through participatory arrangements. Several NGOs have demonstrated conclusively that poor and landless people can protect natural forests and

afforest unused and bare forest land, if opportunities are provided. For example, Proshika, a leading NGO in Bangladesh, has successfully protected 286 ha of sal (*Shorea robusta*) forest through involvement of the landless poor, and these included women (Hoq and Alim 1995).

However, long-term impacts of the NEMAP on the ground will depend on the continuity of the consultative process. Specific steps to be taken immediately are activating the National Environmental Council headed by the Prime Minister, ensuring the dissemination of information and monitoring public responses to the NEMAP, and assisting sectoral agencies and community organizations, including NGOs, in preparing their own environmental guidelines and executing their development programmes under the broad policy directives of the current National Environment Policy.