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A CRITICAL ANALYSIS OF THE POLICY REGIME CONCERNING SUSTAINABLE MANAGEMENT OF NATURAL RESOURCES OF BANGLADESH

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1. Introduction

Formal governmental policies are one of the sources of principles upon which law and government actions may be based.[1] As reflection of principles, national policies embody legal standards of the respective countries. But unlike rules of law, the standards the policies contain are more general than commitments and they do not specify particular actions.[2] Policies are mostly guidelines for the ministries and other government bodies and they may lay the foundation for future legal developments.

The importance of policies in beefing up the environmental regime is recognized in a number of important international instruments including the 1980 World Conservation Strategy[3] and the Brundtland Report.[4] Paragraph 14 of Chapter 8 of Agenda 21, the non-binding action plan for a global partnership for sustainable development, underscored the necessity of formulation of national

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1. Shine C. and L. Golwka, 1998, *Technical guidelines for reviewing laws and institutions to promote the conservation and wise use of wetlands*, Preparaed for the Standing Committee to the Conservation on Wetlands of International Importance, 5. Depending on the circumstances, policies may even be enforceable in the courts. See in this regard, Glowka, L., 1998, *A Guide to Undertaking Biodiversity Legal and Instituional Profiles*, IUCN, Grand, 10.
2. See in this regard, the distinctions between policies and rules in Bodansky, D., 'the United Nations Framework Convention on Climate Change: A Commentary', 18 *Yale J.I.L.* 451,501.
3. *Caring for the Earth: A Strategy for Sustainable Living*, IUCN, UNEP, WWF (1991), 66-73
4. Sands, P., 1995, *Principles of international environmental law I, Framework, standards and implementation*, Manchester University Press, 45.

policies as well as laws for environmental protection and sustainable development.[5]

The importance of adoption of policies has special importance in countries like Bangladesh where the pace of legal development is comparatively slower than the developed world. Although, according to Article 152 of Bangladesh Constituion, policies are not the sources of judicially enforceable obligations, they enjoy binding impact on the activities of GOB agencies and therefore can greatly influence the shaping of national environmental regimes.[6]

The environmental policies of Bangladesh are mostly of post-Rio era. Among them, the Environment Policy of 1992 focuses solely on environmental protection issues while other like the Forestry policy of 1994 and Land Use Policy of 2001 address sectoral aspects of sustainable development. Besides these, other important policies relating to the natural resource management regime in Bangladesh include Fisheries Policy of 1998, National Agriculture Policy of 1999, Livestock Development Policy of 1992, National Water Policy of 1999, Industry Policy of 1999, Energy Policy of 1996, Export Policy of 1997-2002 and National Science and Technology Policy.

This article analyses the contents of the national policies of Bangladesh to the extent they are related to natural resources management issues. The purpose is to examine their efficiency in addressing the needs for environmental protection and sustainable development. It also discusses the necessity of developing the legal rules in the light of the policy directives concerning environmental issues.

2. National Environment Policy, 1992

The adoption of an integrated Environmental Policy was thought

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5. UNCED Report, A/CONF.151/26/Rev.1 (Vol.1) (1993).

6. In one case the Appellate Division of the Supreme Court held that where there is no law, policy can be taken as the guiding norms for enforcement. See, Farooque, M., (1997). *The Bangladesh Biodiversity Legal and Institutional Profile*, 12

to be imperative in view of the "geographic location of Bangladesh, the gradual degradation of its environment and lack of appropriate technology, sustainable management techniques and processes for the exploitation of resources".[7]

The National Environment Policy (NEP), 1992 embraces a number of sectors including agriculture, industry, health, energy, water, land, forest, fisheries, marine, transport, housing, population, education and science. It underscores the needs for amending the existing laws and regulations, formulating new laws and implementing the same for protection of environment, conservation of natural resources and control of environmental pollution.[8] The ambitious goal of the NEP is also manifested in its recommendation for ratifying "all concerned international laws/ conventions and protocols."[9] It assigned the Ministry of Environment and Forests (MoEF) with the responsibility of co-ordinating the implementation of the policies and provides for the establishment of a high level National Environmental Committee (NEC) with the head of the Government as its chairperson to give overall direction for implementation of the policies.[10]

The NEP provides for a few conservation-specific measures for different sectors. As regards housing and urbanisation sector, existence of water bodies in the cities is recommended for maintaining environmental and ecosystem balance in the urban areas. As regards education sector, dissemination of environmental knowledge and information is the policy guideline for improving the level of public awareness of the importance of environmental protection and sustainable use of natural resources. The sectors regarding which environmental policies are more comprehensive are discussed below.

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7. Para, 1.2, Preamble and Perspective, *National Environmental Policy*
8. Part 4, Legal Framework, *National Environmental Policy*
9. *Ibid.*
10. Part 5, Institutional Arrangements, *National Environmental Policy*

2.1. Sector-specific guidelines

1) **Agriculture**[11]: Among the policy guidelines in agriculture sector, the more specific one encourages the use of natural fertilizers and insecticides instead of agro-chemicals and artificial materials. In view of the widespread use of the chemicals and artificial materials in Bangladesh and their adverse impact on the long-term fertility and organic properties of the soil as well as on bio-diversity, a more effective guideline could have been made for the gradual phasing-out of these materials.

2) **Industry**[12]: Undertaking EIA for all new industries, adoption of corrective measures for polluting industries, imposing ban on establishment of industries that would produce pollutant goods and development of environmentally sound technology are recommended goals in this sector. The shortcomings include absence of provision for EIA for the whole life cycle of a project, environmental management system and disposal of industrial wastage.

3) **Energy and Fuel**[13]: Reduction of the use of bio-mass energy, exploration of alternative energy resources, undertaking precautionary measures against potentially harmful use of nuclear energy and nuclear radiation, conservation of forest fuel and development of improved energy saving technology are recommended options for the sector. However, the NEP fails to specify the need for examining the potentials of alternatives like solar or wind energy and for ensuring the sustainable use of the gas resources. It demands EIA only before implementing projects for extraction of fuel, not at every stage of the life cycle of the gas related project.

4) **Water**[14]: Environmentally sound management is suggested in utilisation and development of water resources, construction

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11. Para, 3.1, *National Environmental Policy*
12. Para 3.2, *ibid.*
13. Para 3.4. *ibid.*
14. Para 3.5, *ibid.*

of irrigation network and embankments and dredging of watercourses. The recommendations also include measures against river pollution and EIA before undertaking water resource development and flood control projects.

5) **Land**[15]: Activities that cause or result in land erosion, salinity and alkalinity and loss of soil fertility are prohibited. Compatible land use systems for different ecosystems and environmentally sound management of newly accreted land are recommended.

6) **Forest, Wildlife and Bio-diversity**[16]: Conservation and expansion of forest zones, conservation of wildlife, biodiversity and wetlands are identified as priority areas for action.

7) **Fisheries and Livestock**[17]: Conservation of fisheries and livestock, mangrove forest and others ecosystems and prevention of activities that diminish the wetlands and natural habitats for fishes are the basic policy objectives for this sector. The need for an inter-ministerial co-ordination is underscored by requiring evaluation of the existing projects on water development, flood control and irrigation in order to minimise their adverse impact on fish growth and their habitat.

8) **Coastal and Marine Environment**[18]: Coastal and marine eco-systems are identified as potential areas for intervention, where all internal and external polluting activities should be stopped. Fishing in coastal and marine environment within regeneration limits is recommended.

9) **Transport and Communication**[19]: The policy objectives are to ensure that the transport and communication systems

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15. Para 3.6, *ibid.*
16. Para, 3.7, *ibid.*
17. Para 3.8. *ibid.*
18. Para 3.10, *ibid.*
19. Para 3.11, *ibid.*

do not pollute the environment. The policy guideline, however, does not define what would be the threshold for determining pollution of environment and what specific measures should be undertaken to establish and maintain environmental friendly transport and transport system.

2.2 Overview of the Environment Policy

The Environment Policy of 1992 provide for a number of purely environmental principles like precautionary measures and EIA. It appears to have addressed the conservation needs in various sectors particularly of forest, wildlife, biodiversity and fisheries. But excepting the provisions for EIA, discouraging certain activities, and inter-ministerial coordination, the NEP does not elaborate the measures needed for integrated efforts for environmental protection. It also fails to address some other related issues that warrant consideration for conservation of natural resources and protection of environment. It has overlooked the needs for policy guideline concerning Genetically Modified Organisms (GMO), intellectual property rights (IPR), watershed management and transboundary environmental problems. As an IUCN review of 2000 warns, "Even among the policies, the agriculture, forest, fisheries and livestock policies have recommended introduction of alien species for increased production without considering its potential harmful impact on endemic species, habitats and ecosystems".[20]

With some modifications, the Environment Policy however could be graduated to the level of a good foundation for further conservation efforts in Bangladesh. It underlines the needs for more pro-active measures by suggesting immediate action to amend the existing laws and make new laws to protect the environment, conserve natural resources and control environmental pollution. It has also recognized the importance of ratification of international conventions, treaties and protocols for maintaining close co-operation and liaison with the international communities.

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20. IUCN-Bangladesh, 2000, *Review of the Laws and Policies Concerning Natural Resources Management of Bangladesh*, p.21.

3. Sector-specific policies

3.1. National Land Use Policy, 2001

One of the objectives of the Land Use Policy is to introduce a `zoning' system in order to ensure the best use of land in different parts of the country according to their local geological differences and to control the unplanned expansion of residential, commercial and industrial constructions.[21]. While explaining this, the policy provides that areas already defined and recognized as forests, hills and hillock areas, marshlands and special garden areas should not be urbanized, constructed upon or utilized for commercial outlet without proper authorization of the concerned authority.[22]

Other objectives of the Land Use Policy are to protect natural forest areas, prevent river erosion and to prevent the destruction of hills and hillocks.[23] The Land Use Policy, in this regard, put emphasis on the implementation of other relevant policies as well. First: it provides that "...it is also necessary at the same time to ensure the preservation of present forest areas. It can be hoped that the total situation will improve if the Environmental Policy, 1992 and the National Forest Policy 1994 are properly implemented".[24] Second: while noticing the present extensive tendency of transforming dried up water lands into agricultural lands during the dry months, the policy provides that attempts should be made to harmonize the implementation of the National Agricultural Policy with the National Fisheries Policy in order to increase and develop food production and fisheries simultaneously.[25] The policy, however, fails to notice that this harmonization should be aimed for achieving conservation objectives as well.

3.2. Forestry Policy, 1994

The Forestry policy of 1994 is the modified and amended version

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21. Section 2.B, *National Land Use Policy*
22. Section 3.4., *Ibid.*
23. Section 2.G, *Ibid.*
24. Section 7, *Ibid.*
25. Section 9.3, *Ibid.*

of the previous forestry policy of 1979 in line with the proposals and suggestions of the Draft Forestry Master Plan.[26] The instruments that are taken into account in formulating the policy include "decisions and recommendations taken in different international conferences and conventions particularly the envisaged programs on afforestation cited in the Agenda of the Earth Summit in Brazil, 1992."[27]

The Forestry Policy aims to conserve the existing forest areas and bring about 20% of the country's land area under the afforestation programme and increase the protected areas by 10% of the reserve forest land by the year 2015 through the co-ordinated efforts of GO-NGOs and active participation of the people.[28] It also provides for encouraging private initiatives, eco-tourism, massive media campaign, strengthening of the Forest Department, strengthening educational, training and research organizations. In order to achieve these goals, the policy recommends for amendments of the existing laws, rules and regulations relating to the forestry sector and for creation of new laws, rules and regulation.[29]

Like the environmental policy, the Forest Policy fails to take into account the threat of introduction of alien invasive species to the forestry resource management. While providing for biodiversity of the existing forests it focuses on conserving only "the remaining natural habitat of birds and animals", leaving aside the needs for restoring the habitats already lost or damaged.[30]

3.3. Fisheries Policy, 1998

Biodiversity conservation and environment protection in developing fishery resource are among the main objectives of the policy. In order to achieve these objectives, inland open water fishery resource conservation, management and exploitation,

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26. See Para 1-3, 'Preamble', *National Forestry Policy*
27. Para 5, *ibid.*
28. See 'Statements of the National Forestry Policy', *National Forestry Policy.*
29. *Ibid.*
30. See Para 3, 'Objectives of the National Forestry Policy', *National Forestry Policy*

inland close water aquaculture and its management, shrimp culture in the coastal area and marine fishery resource conservation, management and exploitation are identified as areas for immediate action.

The Fisheries Policy recommends for bringing the *jalmahals* (wetlands) under the Fisheries and Livestock Ministry.[31] The intended purpose is to resolve the problems of their over exploitation by the lessees under the current short-term leasing system that are regulated by the Ministry of Land (MoL). The Fisheries Policy, however, does not explain what alternative measures the Fisheries and Livestock Ministry should undertake to promote more sustainable utilization of the fisheries sector.

The Fisheries Policy reflects the need for stopping the release of untreated effluents from the industries into the water bodies by describing it as a criminal offence.[32] It, however, disregards the principle of sustainable utilization while it encourages the exploration of export market for turtles and some other aquatic species.[33]

3.4. National Agriculture Policy, 1999

The National Agriculture Policy, 1999, takes a narrow approach to define agriculture by focusing on "crop production and marketing together with minor irrigation, seeds, fertilizer and agricultural credit".[34] It aims to ensure, *inter alia,* sustainable agricultural production system, preservation and development of land productivity, preservation of crop biodiversity, introduction of new technology, increased use of organic manure, integrated pest management system, efficient irrigation system, diversification of crops and establishment of agro-processing and agro-based industries. It also underscores the need for updating the agricultural system in the light of the agreements on agriculture under WTO,

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31. Para 5(4), *National Fisheries Policy.*
32. Para 6(2), *ibid.*
33. Para, 7(1), *ibid.*
34. Para 3, 'Introduction', *National Agricultural Policy.*

SAFTA and other international treaties.[35]

Some of the policy objectives, however, appear to have been formulated without comprehensive understanding of the related issues. For example, while explaining the need for crop diversification, specific emphasis is put only on traditional crops, i.e., rice, wheat and maize. In order to augment rice production, the agriculture policy encourages increased use of hybrid seeds[36] that may entail higher inputs of chemical fertilizers, insecticides and pesticides and consequential damage to the fisheries and water quality. The policy itself recognises that 'chemical fertilizers and pesticides used for increased crop production'[37] may lead to 'environmental pollution', but does not explain how increased use of hybrid seeds would not involve increased use of chemical fertilizers and pesticides as well. The Agriculture Policy is also silent about the need for assessing the impact of the use of agro-chemicals on soil, water bodies, fisheries and overall biodiversity.

3.5. Livestock Development Policy, 1992

The basic goal of the Livestock Policy is to identify the impediments to the development of livestock and to determine the strategies for its development.

Some of its objectives are controversial. It policy encourages introduction of alien species of grass like 'napier' to meet the demand of fodder.[38] But it has not considered the impact of such species on the environment and biodiversity. It has also encouraged in-breeding of local varieties with foreign varieties of cattle like Holsteins and Friesians to improve the quality of the livestock and milk production of the country without underscoring the needs for examining the consequences of the in-breeding practices.[39]

The policy recognises that introduction of bio-gas in rural areas as

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35. See, 'Objectives', *National Agricultural Policy*.
36. Para 8, Part 4, *ibid.*
37. Part 17, *ibid.*
38. Para b,f, Section 5.2.1, *Livestock Development Policy*.
39. Para b, Section 5.1.3., *ibid.*

an alternative source of fuel energy will reduce pressure on forest reserves and homestead forests. But it fails to reflect the importance of the excreta of the cattle population that provide the soil with nutrient and moisture holding capacity.

3.6. National Water Policy, 1999

The promulgation of National Water Policy in 1999 was a response to the long felt needs for government directives and guidelines for the management, regulation and utilization of the water resources of the country.

The Water Policy aims to ensure efficient and equitable management of water resource, proper harnessing and development of surface and ground water, availability of water to all concerned and institutional capacity building for water resource management.[40] It has also addressed issues like river basin management, water rights and allocation, public and private investment, water supply and sanitation and water need for agriculture, industry, fisheries, wildlife, navigation, hydropower, recreation, environment, preservation of wetlands etc.

The goals of Water Policy include "protection of natural environment" and chapter 4.12 titled "water for the environment" list a number of tasks for the water management agencies and related natural resources department. These include the followings:

- Adhere to formal EIA process as set out in EIA guidelines and manuals for water sector projects
- Ensure adequate upland flow in water channels to preserve the coastal estuary eco-system
- Completely stop the filling of publicly-owned water bodies in urban area
- Take necessary steps to remove all existing unauthorized encroachment on rivers and watercourses and stop unplanned construction on riverbanks
- Enforce the "polluter pay" principles in the development

40. Section 3, 'Objectives of National Water Policy', *National Water Policy*.

of regulatory guidelines for all regulatory actions designed to protect public health and the environment".

Water Policy, however, fails to address the issues like consequence of transboundary water disputes, watershed management and sustainable practice for pricing of water utilities.

3.7. National Industry Policy, 1999

Environmentally sound industrialization is among the various objectives of the National Industry Policy, 1999.[41] No specific guideline is given for sustainable extraction and utilisation of raw materials for different industries. The Policy also falls short of addressing important issues like the release of harmful effluent into the open water bodies or environmental management systems.

3.8. National Energy Policy, 1996

The National Energy Policy (NEP) is a huge document touching upon various issues of energy exploration, production and utilization. Its goals and objectives include using energy for sustainable economic growth, meeting energy demand of various regions and different classes of people, sustainable operation of energy utilities, ensuring environmentally sound energy development programs, causing minimum damage to environment and to encourage public and private sector participation in the development and management of the energy sector.[42]

These policy guidelines look more like mission statement and fail to indicate how its objectives should have to be achieved. The NEP provides for implementing laws, rules and policies formulated by the Government in this regard and amending the existing laws and rules to implement the policy wherever necessary. But it falls short of identifying the areas of laws which needs to be modified and has hardly addressed the question of strengthening the existing institutional regime.

Considering the importance of the institutional aspects in

41. Para 2.12, Chapter 2, 'Objectives of Industrial Policy', *National Industry Policy*.

42. Chapter 1, *National Energy Policy*.

implementing NEP, Chapter 7 of the policy deals with five different components of the energy sectors: Non-Renewable Energy Policy, Petroleum Policy, Rural and Renewable Energy Policy, Power Policy and Rural Electrification Policy. Among them, the first two policies are more important for the purpose of this study.

The Non-Renewable Energy Policy recommends, among other things, for determining actual field potentials of the developed gas fields, actual recoverable reserve of discovered gas/oil fields, reduction of imbalance in energy consumption by developing energy supply in the west zone of the country, pricing all forms of non-renewable energy at their economic cost of supply, reducing system loss and making EIA an integral part of any new energy development project.[43]

The objectives of the Petroleum policy include optimizing the petroleum resources for its rational use for sustainable development of the country.[44] As regards Environmental measures, its sublime recommendation is only to "promote measures for environmental impact assessment in this sector".[45] It further provides that laws, rules and policies formulated by the government in this regard will be followed.[46]

4. Conclusion

The policy regime has yet to cover some other important sectors. Among them, the Education Policy is awaiting approval for years. The Report of 1997 on which it is to be developed covers a wide range of issues except that of natural resources management. Unless those issues are included in the final policy, it would have no direct impact in influencing people's attitude towards environmental protection. Among other policies, the Housing, and Health policies are under preparation by the concerned Ministries of the Government.

43. Chapter 1.8., *ibid.*
44. Chapter 2.1., *ibid.*
45. Chapter 2.1. X, *ibid.*
46. Chapter 2. 1.N, *ibid.*

The formulated policies, although fairly rich in content, are not bolstered or supported by necessary actions of implementation. A national conservation strategy is still awaiting approval of the Government, which might facilitate to effectuate the environment-related provisions of the policies. The initiatives for preparing an important document called a national Biodiversity Strategic Action Plan has just been taken in January 2003. Furthermore, although many of the policies underline the importance of amendment of existing laws and formulation of new laws, only a very few laws like ECA of 1995 and ECR of 1997 could be found that post-date the policies.

The policies are not always convenient for implementation either. This is due to a number of factors including lack of consistency between them and the institutional weakness of the line agencies of the Government. As mentioned above, some provision of the Fisheries Policy contradicts that of the Land or Industrial Policy; Environmental Policy does not conform to the narrow objectives of the Export Policies etc. The Agriculture policy puts emphasis on increased irrigation from surface water sources viz. *khals (canals)*, *beels (wetlands)* and rivers, without considering its impact on navigational as well as non-navigational use of the surface water. This contradicts the interest of other water based sectors like fisheries and forestry.

Under the Environmental Policy, the Ministry of Environment and Forest is assigned with the responsibility to implement the policies concerning protection of forest, wildlife and biodiversity, whereas many forest lands and resources having wildlife are actually beyond their jurisdictional competence. Furthermore, most of the concerned Ministries and Departments including the MoEF lack in institutional capacities in terms of human, technological and financial resources needed for proper implementation of the policies.

It is therefore imperative to make a coordinated and integrated effort to review all the policies and prioratise the areas of relevant legal reform for facilitating more sustainable utilization of natural resources with an particular emphasis on the needs for environmental protection.